



The impact of digital technology on consumer behaviour
and business operations' Case Study

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Summary

Today, technology evolution is taking place in line with business acceleration and these two terms are inextricably linked. The interrelation between technology evolution and business acceleration destabilises the traditional social norms and changes human relationships and interactions. What society experiences today is the so-called Digital Revolution which is characterised by the emergence of a digital global market as well as the constant and rapid dissemination of information worldwide. At the same time, the Digital Revolution is challenging the traditional business structure and ecosystem for the sake of business innovation. The Digital Revolution has affected the business world specifically in four areas; customer expectation, product enhancement, collaborative innovation and organisational forms.

The new technology, created by companies, has greatly influenced the social characteristics of the new generations, namely the Millennials and the Generation Z. For the first time in human history, generations can be observed who have experienced the digitalisation from the early stages of their lives and who have grown up taking technology for granted. Due to this fact, these generations are the most demanding customers with the highest expectations in B2C interaction, in customisation, in business approach, honesty and innovation. Therefore, businesses have been forced to adopt a more customer-centric and outcome-based model to respond effectively to customer needs.

Businesses, trying to discover digitalisation standards along with the increased customer demands, have developed and designed new diversified digital-penetration business models. Their goal is product enhancement, a result of the pervasive digitisation, which improves and accelerates the way business conceives, designs and delivers product and services. Digital transformational projects are taking place to enhance customer experience across all touchpoint channels and those companies which do not keep up with this pace of acceleration are doomed to stay behind and fail. Thanks to data analytics and the digitisation of the customer profile, one can observe that the gap between the customer and the business is bridged, while customer journeys and inherent monetisation are set in the foreground. The increased efficiency through innovation and the compelling value proposition for customers in the market has engendered a new collaborative framework, which in turn has created the concept of sharing economy. This era of change has forced businesses to reconsider the working environment with emphasis given the replacement of obsolete structural methodologies and the pursuit of a more talented workforce.

Strict waterfall structures have started to lose ground and be replaced by new agile methodologies for the sake of speed, efficiency and continuous improvement. These organisational

forms constitute the outcome – and the fourth effect of the digital revolution – of business’s effort to respond to demanding customers’ needs. The widespread creation of agile teams, beyond technological units, has changed the way business has been working until now. For most organisations, agile methodology is still a pilot program, as the business world presupposes for them to change their shared values, the culture, the way of communication and the diversified skills and abilities.

More present and involved in business operations than ever before, Human Resources seem to currently lead this digital transformation, which does not include solely new operation and management rules but also a new way of hunting talented and high calibre people. Having customer expectations as a priority and being influenced by technology, companies try to eliminate the gap between the technology acceleration and the actual business productivity. This endeavour is tightly woven with the change and creation of core HR pillars. To begin with, the increasing competitiveness of the market and the new career paths of work, have forced HR to draft a whole pillar for the acceleration of employees’ skills. The emergence of the Learning and Development pillar is apparent due to the demands of new generations for continuous skills improvement prospects in a constantly changing environment. Talent acquisition is also considered as a priority pillar for the organisation’s digital acceleration. Under the scope of this pillar, HR is encouraged to take measures to improve employee experience, performance management and the working environment. The Employer Brand strategy has been developed especially for this reason so that businesses can more easily approach and attract young talented candidates as employers of choice. This has, as a result, closely linked efficient productivity and innovation with employee engagement through activity-based working models, performance management tools and flexible working. Data sourcing and analytics have managed to shift the conversation from employee’s individual achievements to teams’ outcomes which are related to the customer-centric results and the overall contribution to driving goals. In case the outcome is not the efficient one, performance management is trying to boost individuals’ performance on goal making, progress tracking, continuous feedback, career development and easy integration. During and after the transition to the new agile organisational model, business leaders are required to be more adaptable than ever before to changes and career development opportunities, if they want to keep up with the digital acceleration pace. Although technology creates the perception of a niche skill working market, the acceleration, deployment and adoption of continuous connectivity and cognitive technology have brought soft skills to the foreground. Adaptability, empathy, problem-solving, and decision making have become the most valuable skills of today's open talent economy.

The Vodafone case study constitutes a great example of an organisation which is experiencing digital transformation in the context of a more general transition of the telecom sector towards digital services. The steady growth of the telecom market is no longer the case with challenges to be identified over competition, regulation, converged and OTT services. The inception, however, of the Digital Vodafone initiative was the start of the necessary conditions for the change in operations, the structure and the overall shift in the Vodafone's organisational mindset. The initiative concerns the transformation of the current commercial business model so as to become a digital provider and a battle against an excessive increase of customer complaints. This is possible thanks to the engaging digital experience and the structural changes for cost efficiency to improve commercial and technology investment. Being also in the process of building a digital identity, Vodafone is trying, despite all challenges, to pass to an agile methodology which means a teams' self-organizing, collaborative and fast-changing corporate environment. The vision of a customer-centric and agile provider has given Vodafone the chance to be repositioned as an "employer of choice". The main goal is for Vodafone to be established as the best place to work for new talents and digital native staff who are, undeniably, the first step to start the turnaround towards digital strategy. Digitalisation has also brought changes to the way Vodafone invests in people's digital acceleration and career development. In this changing world, Vodafone has created a system which promotes a process which allows employees to set simpler and realistic goals, trigger them to give and take feedback and unlock development and learning plans for further career growth, creating a culture that helps everyone reach their full potential. Work experience programs and apprenticeships that have been created by the organisation talent strategy, attract and equip outside talented candidates with developing management and digital skills that enhance the company's employer value proposition. This has also been enhanced by the diversity and inclusion strategy, the flexible schedule shift and the fun working environment. Vodafone has fully understood the digital shift and tries to support young people to succeed in the digital economy.

In conclusion, the constant attempt of businesses to respond to customers' demands has made them transform their organisations' structures, reconsider the essence of an ideal candidate profile and update the working environment. Digital Intelligence is already omnipresent with its different aspects such as digital citizenship, digital creativity and entrepreneurship. The role and contribution of all institutional, educational authorities and businesses are crucial for the preparation of the new digital world but still, only businesses seem to effectively respond to that role. HR centres of expertise carry the responsibility for driving employees and potential candidates towards digital transformation with new management practices and an innovation culture by focusing on coaching, recognition, employee experience, analytics, leadership and the cultural community. Even if this

Digital Revolution could be disruptive, first movers will become experts in optimising the use of machines and crowds to drive productivity, innovation, customer relationships and lift humanity into a new collective and moral consciousness, based on a shared sense of destiny.

Introduction

The primary purpose of this dissertation is to determine the changes that have taken place in today's business world because of the digital revolution. Although technology improvement is rapid, most businesses seem frustrated, dealing with the new consumers' behaviour and the barriers for their further growth which are mainly identified in the management of organisational structures and the people's skills. These two areas concern mostly the replacement of obsolete and traditional waterfall methodologies in business operations so as to respond to today's customer needs and the redesign of the career paths to adapt the needs of the 21st-century workforce. The objectives of this research, therefore, is to precisely identify structural changes in consumer behaviour, in business operations and in human resources as well as to define the digital savvy profile of the businesses and the workforce of tomorrow.

The study is structured as follows: The first section gives a brief overview of the emergence of technology and its impact on social identity over time. The second section analyses the last digital savvy generations and their demanding commercial expectations which create a more competitive business environment. The next section begins by examining the effects of technology on consumer behaviour and goes on to study the response of businesses through structural changes in operations. The agile methodology is outlined in a separate subsection as it constitutes the main force of change both in operations and the working environment. As a result of the agility of the market, the next chapter is considered necessary to look at the changes in core Human Resources pillars that influence people performance and talent acquisition. The Vodafone Group is investigated in the fifth section as a great case study of an organisation which is experiencing digital transformation.

For the reliability of this research, it is considered necessary to present relative results of international surveys by the most well-known consulting and accounting firms and relative components of dozens of other authors who offer a comprehensive picture on the issue. The three different interviews from business executives as well as the educational material from Vodafone University also bring in-depth knowledge.

The conclusions are drawn in the final section where the objectives of this dissertation are met. The dissertation concludes that digital transformation is businesses' great chance for further efficiency, and a more qualitative working environment while the emergence of the idea of Digital Intelligence gives companies the responsibility of driving customers and employees towards the digital economy.

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Acronyms

- **ABW** = Activity-based working
- **AI** = Artificial Intelligence
- **AR** = Augmented Reality
- **ARPU** = Average Revenue Per Customer
- **BYOD** = Bring your own device
- **CapEx** = Capital Expenditure
- **CEO** = Chief Executive Officer
- **CSR** = Corporate Social Responsibility
- **CU** = Commercial Segment of Vodafone Greece
- **CRM** = Customer Relationship Management
- **CVM** = Customer Value Management
- **CX** = Customer Experience
- **DQ** = Digital Intelligence
- **EQ** = Emotional Intelligence
- **EU** = European Union
- **EVP** = Employee Value Proposition
- **EY** = Ernst & Young
- **FAQs** = Frequent Asked Questions
- **GDPR** = General Data Protection Policy
- **iGens** = Generation Z
- **IoT** = Internet of Things
- **IQ** = Intelligence Quotient
- **IT** = Information Technology
- **L&D** = Learning & Development
- **LMS** = Learning Management Systems
- **NPS** = Net Promoter Score
- **OpCo** = Operating Company
- **OpEx** = Operating Expenses
- **OTT** = Over-The-Top Services
- **PD** = Performance Development
- **PM** = Performance Management
- **ROI** = Return on Investment
- **STEM** = Science, Technology, Engineering, Mathematics
- **T2M** = Technology to Market
- **Telco** = Telecommunication Industry
- **UI** = User Interface
- **US** = United States of America
- **UX** = User Experience
- **VR** = Virtual Reality

The emergence of technology and its social impact

Technology, the driving force in human history, has always been considered as the knowledge of techniques and processes profoundly affecting society and the way people interact with each other. This concentration of scientific knowledge used to achieve particular purposes related to the improvement of the quality of human life. Countless achievements from domestication to the microchip, changed once and forever the interrelation between technology and human behaviour, as well as how society interacts and define social relationships.

Technology is first used as a word in its current meaning, long way back, by Jacob Bigelow in 1829, who was trying to explain the “application of sciences to the useful arts” (Bigelow, 1829). Since then, the meaning of the word so as its implications have been changed to a great extent. Many types of technology can be identified in human history, from electronic technology, industrial and manufacturing, to medical technology and biotechnology that have provoked four social revolutions: the **domestication**, the **agriculture**, the **industrialisation** and the **microchip**. Following each of these revolutions, technology has been the main force of social change that brought to the limelight new social characteristics in people’s culture; characteristics that have been occurred or are occurring in traditional and modern types of society shaping human activity (Ogburn, 2004).

Before I start elaborate on technology and especially on digital industry, it is necessary to investigate in a workable and efficient definition of social change and why this is so tightly woven with technology improvement. All individuals in society participate in varying degrees in large and complex networks of relationship patterns in which different behaviours may arise and change through the passage of time. Members of each society face new situations, such as the emergence of new techniques, new ways of making a living, innovation ideas and eventually new social values (Mutekwe, 2012). It could be impossible, though, to have a concrete conceptualisation on the precise meaning of social change as the more research is done, the more definitions pop up. However, the identity of change could be referred to a more specific social phenomenon of undergoing transformation, such as a certain practice, behaviour, attitude, interaction pattern, authority structure, production rate and prestige (Mutekwe, 2012).

Given the above information, I can get sagely the definition and meaning of social change which is *“the large numbers of persons are engaging in group activities and relationships that are different from those in which they or their parents engaged in some time before”* (Vago, 1992). From

a wider perspective, Nisbet R. conceptualises social change as “a succession of differences [planned or unplanned] in time within a persisting identity” (Nisbet, 1969). It is true that there are difficulties in perceiving what exactly is changing in these hardly understandable definitions. However, what I personally deduce from these theories is that the social change mainly refers to the transformation in institutions, functioning, social structure, social growth and decline, and the comprise modifications of the way people interact, communicate and work, rear and educate children, govern, and seek ultimate meaning in life. Human, as a problem-solving animal, is always dealing with potential cultural adjustments which could involve a constant effort of inventing new ways of living with new techniques, new legislative frameworks, new values and paths of social relationships (Moore, 1974). The intelligence and the curiosity stem finally from the human attitude and have lead to new discoveries, from new continents to the moon, and from the photography capture to Facebook and Snapchat.

The impact of technology

The fast and wide social change that the world is currently experiencing did not just happen one day. On the contrary, it is the result of fundamental forces set in motion many centuries ago, beginning with the gradual **domestication** of plants and animals (Mutekwe, 2012). This first social revolution allowed hunting and gathering societies to develop permanent settlements and stop moving around. The plough brought about the second social revolution, from which agricultural societies and cities emerged. The impact of agricultural revolution was not only that people moved from villages to cities, but also the short-term associations replaced those intimate, lifelong relationships, paid work contracts replaced the reciprocal obligations required by kinship, social position, and friendship (Mutekwe, 2012). Sociologist Ferdinand Tonnies (1988) uses the terms “Gemeinschaft” and “Gesellschaft” to indicate this fundamental shift in society from traditional to modern. Then, the invention of the steam engine ushered in the **industrial revolution** and the even more enlargement of social inequality. Libraries, education, the variety of food, the increase in person’s lifespan and the enrichment of citizens’ rights characterised that period (Writework, 2016). **Microchip** (or Digital Revolution), finally, is stimulating the primary evidence of the fourth industrial revolution, the birth of a digital revolution and the first post-industrial society. Last generations, from Baby Boomers to Millennials are deeply affected by this revolution, showing in parallel the intense variations from the previous generations, and so far, society has only experienced the tip of the

iceberg. It is not known yet the time this social revolution will be fully developed but is apparent that little of our current lifestyle will be left untouched. The breadth and depth of these changes indicate the transformation of entire systems of production, management, and governance (Schwab, 2016). Ogburn W. identified that social change and all relative variations between generations can be explained by these three-pronged processes: invention, discovery and diffusion. Invention, firstly, is the combination of existing elements to form new ones with consequences into society, whereas discovery – as the second process - is a new way of seeing reality (Vago, 1992). But the third process is the most important one. Diffusion is the spread of invention or/and discovery from one place to another (Vago, 1992). The places could mean the contact and spread of different cultures and ideas which consist of a source that will affect basic human relationships and cause social change.

Thanks, to information dissemination, most of the industrialised nations dominate unwittingly a role in social change in the coming generations which is straightly tied to the meaning of how organisations work and the meaning of personal and business success. Emerging Technologies, from time to time have brought a major, if not immeasurable, impact on human life. A hundred years ago, car innovation was considered to be the “new technology”, while today new technologies are Virtual Reality (VR), Augmented Reality (AR), IoT, nanotechnology and any technological, environmentally friendly, improvement (Mutekwe, 2012). These gave the chance to billions of people to connect more by all different digital media, gaining an unprecedented power and multiplying their influence via emerging technology trends (Schwab,2016).

The creation, though, of a global, fully connected network is not enough to bring revolutionary changes. Without technological change and advance, any revolutionary change seems to be unattainable. The main characteristic of contemporary society is that people have fundamentally changed the way they live, work and relate to one another because they started using technology in a different aspect of everyday life. They have tools to analyse vast amounts of information, instantaneously communicate and travel greater distances. Moreover, that was only the beginning of a new journey for the humankind. Digital technologies are now interacting with the biological world, pioneering a symbiosis between our bodies and the products we consume or the facilities we live (Schwab, 2016).

At the dawn of the fourth industrial revolution, I come to the main argument of this thesis. Technological Improvement and digitalisation create a tremendous and indisputable impact on business operations and workforce, leaving aside once and forever obsolete manageable methods. Global digital platforms and technology in general, made feasible new products and services which through research, marketing and distribution, are improving the quality, the speed and the price of

production while increasing the efficiency of employees. Taking a taxi, booking air tickets or ordering a cup of coffee became a digital journey. Organisations became the designers of new consumer behaviour patterns by introducing new ways of serving traditional customer needs or popping up new ones and customers became more engaged in their services than ever before.

Education, the private medical industry, and workplace are areas with the most enormous impact of technology intervention (World Bank, 2009). Doctors, for instance, can operate, using special technical equipment, on previously inaccessible body parts. Teachers from the other hand, can now introduce students to highly innovative technology and relay knowledge everywhere in the world, contributing to the elimination of perpetual social inequalities (Harvard Wired, 1994). Being developers in the spotlight, business has finally made the most significant growth, changing customer care and service framework thanks to consumers' high standards, and by re-forming their business profile, they have also changed their image as employers.

The global growth, income and pleasure have been increased around the world. The urgent need for highly educated and skilled workers has boomed while the demand for employees with less education and lower soft and business skills has significantly decreased (Schwab, 2016). This is due to the increase in the global growth income. The inequality, however, in labour market, which has been segregated into "low-skill/low-pay" and "high-skill/high-pay" segments, is potential as the displacements of workers have also been increased (Schwab, 2016). The custom of strict business standards become much more difficult to maintain, as now businesses are adopting flexible work shifts and approaching gingerly customers and potential employees more than ever before.

New processes are emerging, and several other structures are neglected, as we drive in the "sharing" and "on demand" economy. This change on business has such an apparent effect in western societies and it is reflected in the broader change in social relationships, regardless of if we speak from consumers' and employees' side. Most of the planet population has access to social media accounts and platforms to connect, learn and share information, increasing in that way all interactions and cross-cultural understanding and cohesion (Schwab, 2016). Work shifts, also, are significantly changed with millions of workers stay at their apartments, where they perform their work on computers. At the same time, their surveillance has been significantly strengthened (Mutekwe, 2012).

It can be therefore pointed out this exact sociological aspect of technology: It is more than clear that the change and technological improvement is not only about apparatus but concerns a holistic way of community behaviour (Mutekwe, 2012). On an individual basis, social succession is built in source of a change. Society principles, ambitions and the framework of economic, social and cultural development may vary significantly from one generation to another and conflicts cause of opposing

interests are inevitable between generations. Whether or not conflict is a source of constructive or destructive factors of argumentation, it does vitalise social interaction which constitutes a creative source of change (Mutekwe, 2012). In every society, there are writers, teachers, big enterprises and institutions that help the legitimacy/society standards of the social system in the minds of its members. Schwab K. in the World Economic Forum blog indicates four effects that the Fourth Industrial Revolution has on business—on **customer expectations**, on **product enhancement**, on **collaborative innovation**, and on **organisational forms**. Customers became the core of the economy, where the main issue is the constant meeting of their demanding needs and the improvement of everyday life.

New technologies and digital capabilities increase products and services' value, while big data and analytics change how resilient they can be. This world of customer experiences and analytics, meanwhile, requires new forms of collaboration which in turn gives birth to technological innovation. Finally, the emerging of new digital platforms and the need of unstoppable, intelligent and speed productivity forced organisations to reevaluate the way of doing business and new business models emerged, transforming the meanings of talent, culture, and organisational forms. Overall, technological improvement consists of a driving force behind social change which influences the way people think, work and how they relate to one another (Stromquist, 2005).

The birth of digitalisation

It was around 1954 when a major appliance division plant, Kentucky, installed the first payroll processing and manufacturing control program in the United States (Marks, 2002). Since then a lot of changes have been made, and there is a great difference between what the installation of that payroll program meant and today's digital revolution. The difference is more apparent by separating the meaning of **digitisation**, **digitalisation** and **digital transformation** between the blurred lines.

A concise historical overview is necessary to understand what precedes today's technological development and how business processes and structure affected by this development. It would be hard for the 1990s generation and after to remember how life was before everything went digitised. Things people were creating, keeping, and consuming (from information even to art) changed their code of communication. It all started, in the 20th century, around 1950 and with a peak in the 1990s, when technology invaded into cities, factories and people's homes and transferred once again the

traditional forms of receiving, editing and creating information and content (Press, 2015). The rising of the Web in 1990, has exceeded all expectations regarding customers' capabilities and the possibilities a business could have little after. The whole last century's transition was about the replacement of the analogue signals and info by digital, a process defined as digitisation and occurred to the procedure of making all necessary business information available and accessible in a digital format (Irniger, 2017). The translation of which could be not just a type of translation of any media into bits and bytes but a start of a digital revolution of economic transactions and human interactions (Press, 2015). Taking an example of digitalisation, imagine a customer wanting to repair something, starting to make a call to care centre of a company, and the agent starting writing down his/her brief and all information, filling out forms which will be transferred to the next person in the queue who is going to evaluate the type of the problem. That was the analogue period. On the contrary, now imagine that same agent starting typing all the info into customer digital profile in his desktop, and the file being transmitted automatically to the next person without being printed or without any extra need of communication. That difference in process is Digitalisation: the application of analogue data into digitalised. The above process started taking place throughout the 20th century and continues till today. The first companies trying to build customer profiles and software systems for Customer Relationship Management (CRM) before even going to Customer Value Management (CVM), were, in fact, the first small "digital rebels" of their time. Taking the previous example, imagine a situation where the same customer tries to contact company's care centre, the agent does not only take the necessary information from him/her but s/he is also able to make a deep dive, evaluate and categorise the type of the issue. Moreover, the next time the customer will call, the agent will be prepared to assist, by having customer's personal data. That was the time where business first gave birth to more customer expectations and to a more demanded customer who will always expect from the business to guarantee a first-time-fix before even he/she is going to explain the problem.

Digital Transformation, after digitisation and digitalisation, is taking place to create a new game changer shape of concepts in business, with new business applications which are integrating all these digitised data and digitalised applications (Irniger, 2017). Right now, data is more accessible than ever before and used by various platform devices and interfaces thanks to technology development while the optimisation of qualified and suited technical staff is suited in order to sufficiently tackle complex issues. Some main outcomes of digital improvement we are all experiencing today, are artificial intelligence, augmented reality and predictive maintenance.

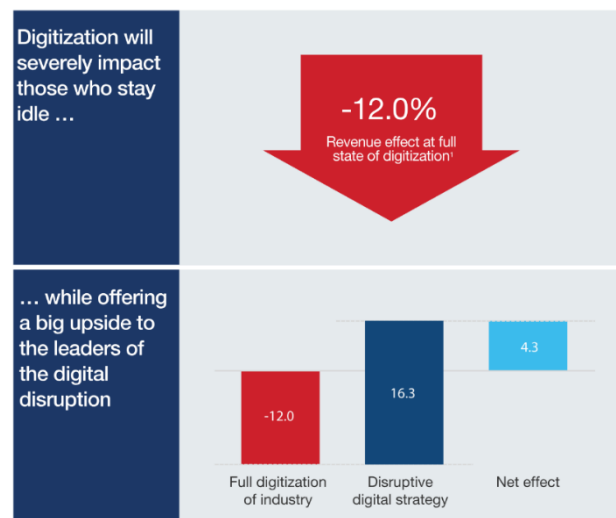
Digital transformation with changes caused to the traditional economy and information dissemination brought new widespread applications on business services and sharing economy, well known as crowdsourcing. The same thing has been happening in the field of the service sector. An

increased number of tasks resulting from predictive maintenance, combined with a desire to keep overhead costs low, has led to the concept of the Crowd: a pool of certified and qualified service technicians consisting of the company's employees as well as the company's partners and subcontractors, and skilled freelancers. The Crowd is integrated into the AI-powered Field Service Management software guaranteeing that someone is always available in real-time to meet customers' demand (Irniger, 2017). In the end, however, every battle has winners and losers, and we are seeing lots of businesses finding it challenging to keep pace with digital transformation procedures and run the risk of becoming obsolete. Finally, a turnaround prerequisite a change for employees who often have no clue how this change may become personal manner.

The digital aspect in Market

The effects of the ongoing digital transformation are profoundly affecting how firms are perceived and how are performed to remain sustainable. Some of them are doing it by their own initiative whereas others as a response to competitors' pressure who have already entered the field. Some are more willing to gain a seat in the new digital age and others consider this restructuring as a barrier for their further development. Digital transformation, with all restructures this entails, causes the redesigning of how business manages and operate, enabling today's advanced technology (Shimp, 2017). Especially for organisations that have already conquered national and global markets and maintain complex structures, in most cases a fast but difficult to implement digital turnaround is needed. Incremental changes are not considered efficient. This compromise, Digital McKinsey experts explain, is the first disruptive and most costly step within an effective digital restructure (Figure 1.1). Even organisations that have started digital transformation are often watered down during the long way process as complexity is everywhere and organisations need to invest across dimensions, like talent staff and training (Arora et al., 2017).

Figure 1 – Companies disrupt themselves will stay ahead in digital world - % of revenue, at full state of digitalisation, by industry, estimated



Source: MGI; McKinsey Digital Global Survey

A reimagining of business operation is being affected by the most prominent pillars of digital transformation: Devices like mobile phones, i-Cloud, Social and Big Data have significantly accelerated the pace firms are being transformed, operating and serving customers today. Firms should deliver rich, real-time interactions with personalisation to keep their customers engaged and the way they embrace this fresh revolution includes the below prominent elements (Girish, 2018):

- **Outcome-based models** with customer centric values which are determined by the impact on the business.
- **Expansion into new markets and industries**, meaning the extension of the business reach beyond strictly defined customer demographics, physical locations, and traditional market segments.
- **Pervasive digitisation of everything**; this will accelerate the products and services are conceived, designed, and delivered, eliminating the barriers between customers and business.
- **Ecosystem competition** which creates a more compelling value proposition in new markets through connections with other companies to enhance the available customer value
- **Shared economy** that extend access to other business entities and customers to receive more value from underutilised sources
- **Realize value from digital platforms** which, through its inherent monetization, use the previously untapped value of customer relationships to improve customer experiences, and drive ongoing innovation in products and services (Schimp,2017).

Today's reality commands business to transform their operations very quickly – from forecasting demand to staff recruitment - if they want to continuously identify how the market works and how to develop new - relative to customers' needs - products and services. It is not about whether someone's business is capable of embracing digital transformation principles or not, but the moment and circumstances of doing that. In nowadays digital competition, playing a business the role of late adopter while is already in the domain, doesn't sound very sustainable (Shimp, 2017).

Customers have made it more challenging than ever before to manage and to demand. A new generation of them, having been brought up with the ease that everything can be done with the tap of a button, want businesses to deliver rich, real-time innovative interactions with personalisation to keep them engaged. The increased competition for revamping among businesses launches, therefore, new niche products and services, as now they can strategically reach every customer from the global audience (Ward and Lee, 2000). Monetization from digital platforms and collaborations with partners can further help achieve better profits from an untapped source of customer relationships. Alternatively, digitalisation of services and products acts as a solution for breaking the barriers between business and customers (Girish, 2018),

The discussion about the size of businesses and the correlation that this has with the business capabilities, is outdated today while the need to be supple – regardless the size – is absolutely on its peak. They all start in a fairground and end up to a digital environment that offers thousands of different choices putting content to customers. Eventually, in this digital framework, big organizations are dealing with more problems, as the craft of a digital strategy is not a matter of budget but of how fast and flexible is business. Start-ups, on the contrary, seem to be game changers for the adoption of new strategies and the embrace of every kind of new digital feature.

Shading the new social identity

Technology sovereignty and the arrival of digitalisation change not only our actions but also who we are and how we behave. Our identity, bounded it only by our imagination, is changing to such an extent that only in the last decades we have changed kind of our sense of privacy, our notions of ownership, our consumption patterns, the time we devote to work, train and leisure, and how we develop our careers, develop our skills, meet people, and nurture relationships (Schwab, 2016). The

vast majority of people appear to be great enthusiasts and early adopters of technology by using it on a daily basis and in all its different facets. Lots of questions are raised, however, whether digitalisation diminishes our communication and cooperation skills.

People invariably connected with their smart devices have significantly reduced their time devoted to other things. They are sharing and tracking information about everything just to remain connected with other people by sharing ideas and exchanging information. In harmony with this essential need, people have increased communication with every kind of persons and bodies, in a way that compels businesses and organisations to become more flexible in their communication than ever before. Customer expectations have been steadily soaring (Kumar N. et al., 2005). The demand for instant answers 24/7 and care service is mandatory for business as an essential part of connectivity with their customers. As the physical and digital worlds continue to converge, new platforms are increasingly coming up, and more people are engaging with business organisations, even governments, voicing their opinions and giving them constant feedback, coordinating their efforts, and even circumventing the supervision of public authorities (Schwab, 2016).

Given the Fourth Industrial Revolution's rapid pace of change and the broad impacts, legislators and regulators are being challenged to an unprecedented degree and for most of them are proved to be unable to cope with it. National authorities and business organisations, though, are trying now to anticipate more intensively the impact of dissemination of information and personal data distribution on our lives (Helsper E. et al., 2010). European Union's measures, for instance, regarding the introduction of the General Data Protection Regulation (GDPR) is one of the most recent examples of initiatives for further protection and synchronisation on current thresholds of personal data. The main idea of European Union was to empower European citizens' rights while browsing on the digital environment and forcing businesses to change the current mass, without control, approach to public engagement, due to this new digital source of competition. In that case, companies' desire and ability to embrace the new regulatory framework will determine their survival and maintain their competitive edge (Joel, 2018).

So, how business and organisations can preserve customers interest while striving to balance between the existing framework and the enhancement of innovation and technological development? Agile governance has already made its appearance as an answer to software development and business operations. Customers and new generations seem more demanding than ever before, forcing businesses to run more quickly to achieve the continuous improvement of their products according to customers' feedback. This means that Digital, Engineering, IT and Regulatory Business Units and

external consultants must closely collaborate with each other and with the state as well to continuously adapt to new, fast-changing environment (Schwab, 2016).

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New generations as consumers

Millennials, growing up surrounded by technology, have become the most influential group of consumers. Maybe the most enunciated and acclaimed generation ever, pampered and most fussed over by parents and recruiters, the millennials have been dissected by psychologists and analysed by statisticians, as they managed to bring changes and redesign the contemporary workplace (Gianniris, 2018). Born in a time of rapid change, between 1981 and 1997, it is estimated that they are now occupying more than 35% of the U.S labour force and 30% in E.U labour force and by 2030 they will overtake 75% of the workforce (Fry, 2018). This group of our society experienced the financial crisis erupted in 2008, a result of the first significant problems of globalization. This generation is the first historically generation digitally wired in their early childhood years shaping them to be the very first and most connected generation ever and labelled for its overconfidence and narcissism. Work-life integration, powerful social profiles and a deep sense of social responsibility are highly prioritized in their life.

Communication immediacy and an increase of the global dissemination of information create a social interaction crave and a seek for constant reassurance. This birth of unity feeling, and collaboration create the contemporary meaning of community, where young people seem to be more willing than their predecessors to socialise, change ideas and to work in groups (Gianniris, 2018). The new generation is categorized as a totally new consumer who could create consumer's profile subcategories depending on behavioural characteristics in the digital environment. The introduction of technology evolution has brought, also, changes in employee portability and the work responsibilities that are directly linked with the reason why millennials do not count productivity by time spent in the office, but by the task completed and the impact of their work. Well-known as the children of the millennium, they came, therefore, to redefine how our society works and to force once again businesses to redesign their strategy along with the digital revolution.

Main Characteristics

Digital transformation, driven by the needs and characteristics of new generations, is changing now retail and business more than it has done for the last 50 years. The significant change refers

mainly to the improvement of digital shopping skills of many millennials which can be translated into “how you find the best products”. During only last decade, digital channels became critical to Millennials, providing them with information and insights they need to proceed to purchases. Some of the skills that are connected with these technological breakthroughs are checking product ratings and reviews or feedback on retailers to confirm that both product and vendor provide the best value and service, respectively. Such skills made millennials so flexible and omniscient grasp for prices and quality of products, which is a big challenge for retailers (Donnelly and Scaff, 2018).

But there is still the question why this is meaningful change on their profile comparing them to their predecessors. As most of them are educated, positive about tech and entrepreneurial, they have been certainly very digital savvy and demanding customers. Of course, it goes without saying that these members of society combine most or some from the previous characteristics of the classic customer profile. Through all their frictions with technology and the general perception they acquired from society in general, millennials became the most civic-orientated, environmentally conscious, multitasker and progressive generation in recent human history (FOXYpreneur, 2017). Numbers are revealing: 91% are regular internet users, 73% work more than 40 hours a week, 26% globally work two or more paid jobs and 12% say it is unlikely they will ever retire (ManpowerGroup, 2016).

Business and workforce today are changing fast, and millennials are happy to disrupt and be disrupted as well. Technology has been having an impact on the way people communicate today with media consumption to be massive and fast; multitasking is the norm and filtering information is something more than necessary. The influence on the first digital generation impacted the way they engage, approach and evaluate tasks on their everyday life. Readers, for instant, won't invest time in something if it does not deserve their attention and time. While emails are still one of the preferred communication methods among this population, a study revealed that 70% of millennials believe text messaging apps are becoming more effective and lead emails becoming shorter and less formal (Branch, 2017).

Moving into their prime spending years, millennials seem not to have anything in common with previous generations regarding the digital environment, bringing a huge impact on the economy. One can easily conclude that this promising community of consumers, with their different priorities and lifestyle, have already reshaped the economy and the way business deals with consumers (Goldman Sachs, 2017). Businesses are still discovering that they could not keep on the same product and marketing path towards these new consumers whose preferences and needs do not precisely fit those of the mass market. Such differences are based on structural factors of the economic landscape. Butting off significant milestones, millennials, are more reluctant to purchase their own things and

more willing to adopt a sharing economy. They don't wish, for example, their own house and they prefer renting a house, they are more willing to commute and sharing a car, to prioritize holidays and liabilities. In general, a main characteristic of millennials is having short-term experiences as opposed to longer-term goals (Cripps, 2016).

Behavioural changes consisted trendsetter across all markets. Millennials, being digital natives, have always been searching precise information, products or services close to their needs and not just popping up on them. Internet was the vehicle to this tailored-made market, where every customer can have whatever s/he needs. Many companies now try to ensure that online channels are the capable ones to meet young generation's demanding needs, the policies are the right ones and digital touchpoints to take advantage of all significant devices like smartphones, tablets and VR gadgets (Cripps, 2016). The results of a survey - conducted proprietary global market research on the shopping behaviours of 6,000 consumers - ran by Accenture confirmed the new trends. When it comes to shopping, regardless of the channel, more than half of Millennials (68%), expect their experience to be at least seamless and similar across each brand's touchpoints. That means that their transition from one device to another (or even to the physical store) should be done effortlessly (Donnelly and Scaff, 2018). Although Millennials are popular with traders for their shopping mobility compared to previous generations, the insights conceal a very smart loyalty game. Almost every millennial waits from a brand to offer dedicated benefits to their loyal members. Channels like social media and text messages seem to have been more than efficient. Marketers believe that social media is the master area of new generation, but the youngsters have already made one step further. Some businesses consider that the existence of those channels is enough for making millennials more hesitant to engage to their brand by updating them with special personalised offers and product information but that doesn't necessarily mean they are loyal customers and see this communication outside of a transactional relationship. Given the aforementioned research, retailers appear unfortunately to under-deliver when it comes to Millennials' demands. When Accenture evaluated more than 60 global retailers to understand how seamlessly they deliver the customer experience, they found that most of them had big vacant in their approaches (Donnelly and Scaff, 2018). Accenture experts more specifically found six contributing dimensions to a seamless retail experience with traders making headway on only two: providing a **consistent cross-channel experience** and offering **personalized interactions**. The other four dimensions — **connected shopping, integrated merchandising, flexible fulfilment options**, and the **capabilities** and **enriched services** that help make the overall shopping experience better, faster and more memorable—remain a work in progress (Donnelly and Scaff, 2014). In this new customer engagement framework, business providers have been struggling to re-evaluate business operations, as some of the traditional methods are totally disputed.

Doing the extra mile, millennials prefer not only to give instant feedback to companies through all available touchpoints, but they are also willing to be more involved with the way products and services are created. Companies that enable them to be part of the product development process will be more successful. Having an impact on society instead of just making a profit is considered also an important factor for the last generation to support a brand. The sooner a brand builds a relationship with local communities and supports them the more loyal customer it gets. Having a closer view on social impact companies could have, millennials remain confident that business is a force of good with 73% maintain that it has a positive impact on wider society. However, they have a clear view of organisations need to be profitable and maintain a long-term sustainable success, taking the rational business risk but not be in a risk (Schawbel, 2015).

But it doesn't concern only consumption and millennials' role as consumers. Digitalisation brought also changes in the new generation's perception about their role as employees. According to another survey of more than 7,700 Millennials from 29 countries during 2015, it is acclaimed that if given the choice, millennials, as employees, plan to leave their jobs over the next 5 years, "with the average in developed economies standing at 61%" (Eltringham, 2016). In the contrary, a generation ago, many professionals sought long-term relationships with employers with many of them taking on any project their supervisor wanted (Deloitte, 2015). Millennials, though, are more likely to work for employers that share the same values. Personal values and beliefs rank so high in the job finder battle, bringing an impact on the business environment. Most young generations feel more confident standing their ground and refuse an assignment and organisation target that is conflicting with their personal beliefs (Eltringham, 2016). There is also a high correlation between satisfaction and purpose as they don't think that the most important thing is financial profit but instead, they are positioned carefully on social issues, like how their job will have a positive impact on people's lives and on the environment.

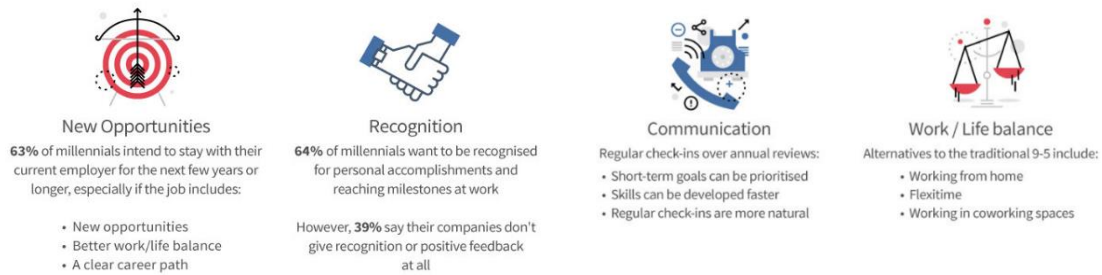
They are re-defining professional success, they're proactively managing their careers, and it appears that their values do not change as they progress professionally, which could have a dramatic impact on how business is done in the future (Renjen, 2015). Conversely, companies want to attract and retain their talents should invest in digital transformation and technology, especially for those related in some way, business-wise, to technology market - 93% of millennials say that up-to-date technology is one of the most critical aspects of a workplace - (Branch, 2018).

For recruiters looking to grab the attention of these potential candidates, it's essential to consider the emerging ways of communication. Except for their need to open alternative channels, young generation managed to totally change the way a job offer is qualitatively evaluated. Money is

not the most effective motivator for them anymore – at least in their first career years – dethroning thus the most fundamental factor built by until today traditional workplace. Their driving force is only their ambitious expectations from where personal accomplishment is highlighted - 64% of millennials want to be recognised for personal accomplishments, however, 39% say their companies don't offer any recognition. The art of unplugging is a big deal for Millennials; In 2016 there was a record for the UK publishing industry with 8% book sales increase. "Because millennials are always plugged in, they consider 'unplugging' a novel way to relax, enjoying the tactile feeling of holding a real book over that of an eBook – and this is translated into the way they view work and downtime" (FOXYpreneur, 2017). This unplugging need to be noticed by organisations while dealing with new generations. Flexibility and agile methodology, for instant, are necessary elements in today's working environment. The traditional office working hours between 9:00 a.m and 5:00 p.m doesn't exist for millennials. They believe that flexible working shifts enable them to be more productive and therefore they choose jobs that they offer them personal satisfaction and work-life balance, and the limits that the business gets itself to encourage its employees, like time limits to when emails can be sent or where a meeting can take place.

The fast-thinking generation, focused on productivity and personal growth, force business culture to change intensively. The last generation wants to spend more time discussing new ways of working, developing their skills, and being mentored, seeking flexibility and if the business does not adapt to this new path of operating and convey company's values will never manage to catch the attention of top talents of millennials. Turning the world upside down, millennials paving the way for new business models, organisations to adjust their benefits to increase new generation employees happiness and inspire loyalty to brands. Such benefits are flexible working hours, different ways of communication, short-term objectives, recognition processes from managers and peers and clear career paths. On the other hand, reasons for quitting a job are minimal wage growth, lack of opportunity to progress, excessive overtime hours, a work environment that doesn't encourage teamwork and a boss that doesn't allow working flexibility inside and outside of the business (Branch, 2018).

Figure 2 – 4 Things worth more than money to Millennials



Source: Branch A. 2018

Gen-Z matters more than Millennials

Although marketers, recruiters and researchers have spent time and resources dissecting Millennials' brain, many believe its time to move the conversation on the next equally popular generation started already to bouleverse business ecosystem, named as Generation Z or iGen (Udland, 2015). Being the very first generation with pre-life and identifiable with the Internet, born and raised with smartphones and does not know to live without social media, is now entering the workforce, rising in influence and it is ready to outnumber their Millennials predecessors. However, the main question raised is why they do not look anything like Millennials (Studyportalsacademy, 2017).

People belong to this generation seem to be less idealistic and more practical, pragmatic and realistic than millennials (Palli, 2018). According to Goldman Sacks, their relationship with money is far smarter than their predecessors: "77% of generation Z earns their own money through part-time work or as free-lancers, while by the age of 14, more than 80%, have already made some money from selling online tools such as eBay. 12% responded that they have already saved money for retirement while a significant figure, about 21%, have savings account before the age of ten! 80% makes online purchases, 67% use Facebook, 32% claim that his favourite app is Instagram while 79% of generation would pay attention to something that uses "virtual reality" (Palli, 2018). Nevertheless, it is the generation that cannot even understand how the world was before 2000, having been raised in the years of financial recession, grew up in socio-economic tensions and war overseas, this rollover generation has learned the meaning of savings and prioritization (Udland, 2015). Being the generation born device-in-hand, youths are more careful with their digital exposure, their protection from overexposure and avoiding giving details of where they are located for safety reasons. In general, this

new technology dichotomy on the market gave an urgent pause to marketing units of brands who still attempt to understand and connect with key demographics.

Researchers have remarked that Generation Z prefers to get a job instead of a long academic career (in contrast to the overqualified and millennial postgraduates' millennials). Digital Transformation challenge is huge and the business market, except for millennials, also needs iGens within it. They are within technological development and computing, working from smartphones, chatting and cannot imagine work in a non-digital environment. Organisations approach of these young people, manage their creative and diverse talents, inspire safety and give them opportunities to grow and develop.

Generation Z guided by strong values, seek for organisations with similar ones that can support without any barrier their ideas and beliefs. Compelling brand advertisements do not influence youth perception as they think authenticity is more important than content and they always try to avoid and skip commercials. On the contrary, new generations usually feel more confident (33%) reviewing blogs before making any purchase, comparing especially to baby boomers who rely on more traditional media. Blogs and social media have also been transferred to an authentic mirror of the world due to the content was written by users and other peers whom they trust more than companies. The last generation seems to connect best with people than logos and social media and blogs tend to include a more personal experience view. Young consumer engagement's impact on the market is undeniable: 62% of millennials feel close to a brand and is more likely to become a loyal customer when the brand has a social media account. With most brands having social media accounts and maintaining holistic strategy, it takes more effort for them to keep up with social networking feeds, but it's worth it if you want for attracting new generations (Cripps, 2016).

New generation's impact on business

Employers and especially recruiters, making a long time to understand the new roadmap of this new, technology native generations, along with their needs, are investing now millions to new processes, systems and touch points. The feeling of continuous leadership development, the improvement on their skills, the remuneration and the satisfaction levels of employees are proved to be essential (Eltringham, 2016). With unhappy young employees due to lack of development, the only thing that will arise is the rate of potential employees exits. Employers, according to the aforementioned survey, are trying to provide new opportunities for leadership development by

connecting millennials with mentors, by encouraging work/life balance and finally by providing flexibility that allows them to be more productive; by giving them more control over their careers, employers encourage and reward open communications, ethical behaviour, and inclusiveness, which consist of the values that will attract millennials (Eltringham, 2016). Economic factors, therefore, are not the only driving force to abandon an organisation or even to get hired. The desire to leave a current job during the next five years is greater among millennials in emerging markets (69%) than in developed economies (61%).

All the above sound simple. However, such a change in consumer and employee behaviour is not an easy task. Millennials, post-millennials, youngsters and Generation Z, with high trust in their abilities, make the game seem more uncertain for businesses because they are disrupted, flexible and rather impatient. Ready also to demonstrate their abilities and what they can do, they have high expectations for their professional lives, learn constantly to evolve, meaning that either they don't perceive their hierarchical social path in the usual way or they don't fit perfectly with traditional corporate work environments, with all relevant specific structures and working patterns. Rebecca Pitsica, People's Business Group Chairman and CEO points out *"that too much confidence in their skills and lack of experience can in some cases be a problem for HR. Thus, new ways of approach are needed, change in assessment tests to evaluate talents and change at the heart of business strategy"*. New generations' needs are not only transforming the existing shopping and business behaviours but also those of their parents, who are increasingly mimicking the demands of their children for seamlessness as they climb the digital learning curve (Donnelly and Scaff, 2018). Consequences of this digital evolution are now being seen in the retail environment which is changing faster than many companies' expectations, by making profound unpreparedly or unwillingly cross-functional restructures.

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Digital Penetration in the Business Sector

The amount of available information in the digital environment is boundless. Quality and price of services – most of the times lower than that of physical shops – consist of the remarkable examples that lead consumers to digital stores and keep creating new business requirements (Bakos, 1997; Malone et al., 1987). The enhancement of digital presence has brought plenty of benefits for consumers, like identifying cheaper offers, being aware of the sellers' reliability and eventually being more sensitive to business changes related to customer journey and experience on a website. Even if consumers need to spend time searching and accessing information, the almost costless digital search enables more advantageous online offers and an effortless servicing in comparison to traditional sale channels. Organisations discovered that a differentiated new strategy for the highly competitive digital channels was necessary to create. They committed, thus, to new business models, more adjacent to technology, in order to respond to customers' need for more digital content.

Digital transformation has been both an opportunity and a hurdle for business. Lots of firms, nowadays, may hesitate to make a step closer to digital transformation as the way to this is full of retrofitting and re-evaluation processes, new investments, and releases. Such processes and structural changes may be the key for digital transformation but they could also be proved to be detrimental if a firm is not implementing them accurately (agile methodology is a usual example of administrative changes due to the need of digital transformation). These challenges mostly concern operation structure domains which are going to be elaborated on this unit and are related with the two of the four effects of Fourth Industrial Revolution, **product enhancement** and **innovation**, both of which have already been referred previously (Swab, 2016).

The digital impact on consumers' behaviour

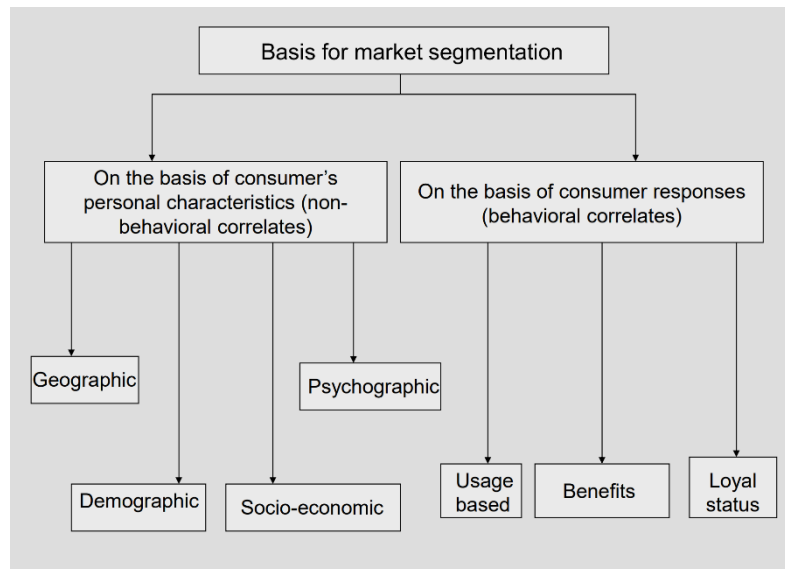
It seems to be crucial for this research to explain why consumer behaviour is so important for shaping business strategy and product enhancement. Having explained new generations' characteristics and how these emerge from a new setting in consumer's profile, this chapter is going to examine how companies and organisations have been adjusted their business activities to today's needs so as to interact with all consumers in all complex digital paths (Donnelly and Scaff, 2018).

With opportunities and risks of contemporary businesses to differentiate from that of the past, the digital age has been totally changing sales and retail strategy. Following the customers' insights, organisations started creating more seamless customized products and services, which are integrated in on-brand experience for each individual, including three components. Firstly, starting with customer demand, the most essential thing that firms needed to respond is the **customisation** of their offerings across any channel in the way new generation, like Millennials and IGeners, wish. This is practically a one-way offer providing faster, better on quality and more memorable services. Practices like intergrading firms' merchandising and marketing units within a unified position, have been proved until now to be an efficient strategy for the enhancement of customer experience and for more customization. Secondly, an **integration in operation elements** may also be necessary, whilst customers nowadays demand end-to-end basis, single channel teams regarding their requests, especially if they are dealing with spontaneous problems. A single conversation with a customer, for instance, boils down a simple customer care call, or a conversation through chat bot or social media, elements that will be transmitted to customer's profile. Customers could then monitor their request process from his/her smartphone. Thirdly, the basic condition for carrying and implementing, an end-to-end customer service channel, is also the **integration of all relevant data** in IT platforms, boosting in that way cross-channel transparency and a 360-degree view of the customers (Directorate-General for Internal Policies, 2011).

It is evident that all the above components with the administrative changes that may arise from them require a series of pre-action by the firms' side. To begin with, before a company proceeds to such radical changes, business teams need to first take advantage of available customer behavioural data and analytics. Marketing, Customer Value Management and finally Human Resources departments all have an important role to that as the assumptions could be risky. Large complex databases are not easy to be processed but include potential answers about each customer's needs and the differences from one another. When businesses started to evaluate to a greater extent big data and take advantage of digital analytics, they took insights of the market that helped them understanding faster customer's behaviour, upcoming trends and thus all necessary steps needed to be taken from their side. In the past, there was just a little fraction of data and thus an elementary business strategy, while, nowadays, business strategies have become more targeted. Customer data has been strategic for reaching the right customers at the right time, in the most appealing and customized way to successfully sell products and services. Segmentation, targeting, customization and positioning are essential steps for driving customer acquisition, retention & growth, elements which entail the main idea of the technology. Let us not forget that digital world adopts the motto "we can't be all things to all people". Once businesses can segment the market, they can develop different

marketing strategies, which are highly related to the company’s mission and objectives. Different levels of segmentation could also separate marketing, a milder form of segmentation, with niche segmentation and micromarketing -with the last one being more prevalent in the current market (Georgakellos and Agapitou, 2018).

Figure 3 – Segmentation



Source: Georgakellos D. and Agapitou C. Notes, University of Piraeus

Before digitalisation, mass communication as marketing tactic was the norm. Personalisation and customer experience were not even into most high-value-firms’ values and only demographics (who is our customer) and firmographics could give some insights about its market. Today practices are undoubtedly different (DeAsi, 2017). Companies manage to drive productivity, create new solutions in today’s customer-centric world and use these insights for the benefit of the companies. The difference with the period before digital age is that just knowing “who are your customers”, is not enough. Useful leverage behavioural insights are making businesses outperform in sales growth and in gross margin (Gallup, 2018). Targeting the right customers today is one of the most difficult but mandatory business cases as, unlike to past decades, a business must decide who its customers are and how they should contact them. Businesses, setting apart first behavioural characteristics, draft different customer patterns based on more personalised behavioural segments and determine the best engagement strategy possible for each group. Using customer digital behaviour footprints, firms now use relative recommendation engine algorithms and design campaigns to reach existing and new customers. Another communication strategy would be impossible for firms or at least unnecessarily

costly as channels are designed to serve customers dynamically personalized content and product suggestions based upon each customer's past behaviour (DeAsi, 2017). Of course, recommendation and personal communication is more intense, when business chooses to keep up a direct communication or a communication through another third party (e.t Facebook) with customers, creating thus complex customer journeys as easy as they could be for the user / customer.

“Data today is imprinted on a hard drive versus back in the day when it was manually programmed. The amount of data out there today has to help businesses find new customers”. Apart from Mr. Sukumar, C.E.O of Optimal Strategy, who made this statement, number of behavioural analytics firms, argue that data don't shape only firms' customer experience but also are able to drive outcomes and change customer behaviour. This huge amount of unstructured data can be extremely beneficial because the firm is able to identify trends, offer personalised marketing and develop new era of innovation. With the consumers being more aware of the market, businesses ought to be careful about who and how they ask money for (ET Bureau, 2017). Sometimes business goals of data optimization could have unclear outcomes. However, findings and numbers till today's profoundly show a data-oriented way: According to a McKinsey survey to more than 700 organizations around the world, investments on analytics to gain competitive intelligence for targeting customer more successfully, could generate operating-profit increases in the 6 percent range (Brown, 2017). Three different ways in which firms choose to invest in data optimization to understanding consumers' behaviour:

1. Customers Critical Patterns: By pooling customer information data about buying habits, purchase frequency and paths, companies manage to optimize revenues, churn, fraud, and relative default risks. Marketing Unit, for instance, fully segmented and thus burdened with less risk for business decision, precisely demonstrates what types of content over what channel and format are likely to have the greatest impact on key microsegments (Brown, 2017). In this case, data and insights are not examined like isolated variables but allow businesses to obtain a holistic view of their customers. Pattern data could also be proved to be useful for relying on more sufficient distribution channels for personalize outreach.

2. Productivity Improvement: Data optimization and integration can reduce inefficiency inside firms. Reporting dashboards, next-best-action analytics and challenge tables seem to have profound impact on customer operations. Managers can compare customer performances and see what pricing and discount bundles are working for other clients with similar profile. This will finally help firms not to spend time only for tracking information and applying results (Brown, 2017).

3. Implementation: According to data-maturity level of each one, companies do not wait for the perfect systems to start data monetization. This means that, even if a strong digital strategy needs basic requirements, information gathering, or manual data entry may be needed. The quality upgrade of data processing, in general, contributes to the enrichment of customer database and the enhancement of data shareability and accessibility. The first one helps to include customer-sentiment-behaviour scores, purchasing transactions insights and online behaviour, while the second one force business commercial and IT teams to fast-track digital development (Brown, 2017).

Corporation companies like Microsoft, Netflix or Alibaba are thriving on data optimisation but they are not the only ones. Lots of companies, regardless of their size, can also have a successful digital pattern, by leveraging the power of behavioural customer data and analytics. Business presence in today's digital market doesn't mean securing customer satisfaction and business growth. Customers' behaviour and expectations force businesses to create research budget and increase innovation expenses, focussing more on creativity and productivity inside teams. Firms have not only learned to search for customer behaviour but they also seem to impatiently wait for direct constructive feedback from their conscious customers (Directorate-General for Internal Policies, 2011). Thanks to costless online searching and the evaluation of the most advantageous choices, consumers become all the more rational and internet forces businesses to enhance their services and expand them across the global markets.

Firms, across the globe, have developed new retail and sales channels to reach more consumers through targeted advertising and then build a stable relationship with customers (Riesco, 2018). However, it is not always easy to accurately predict today's consumers' trends, as behavioural obstacles may be occurred. Although the sharp increase of sales channels has significantly improved consumers' access in information in terms of quantity and the User Interface and Experience, the endless choices and the advertisement can become sometimes more than overwhelming. Experiments have shown that consumers may fail to take the right decision according to their needs, if there have lots of alternatives available to them (Reeson and Dunstall, 2009). Due to the large numbers of alternatives and the limited ability for them to process information, they turn to online discussion forums and different kinds of search engines to filter the vast volumes of information and evaluate how reliable products are (London Economics, 2010). Other social networks also play an important role, as consumers seek for information by trustful people in their network and put greater weight on their opinion than on information coming from other online reviews (Swamynathan et al., 2008). These trends constitute additional reasons why businesses consider targeted advertisement as a more efficient selling tool. A report published by Experian Hitwise (2010) showed that the top two reasons why consumers sign-up to company social media profiles are to find out special offers (24%)

and see consumer reviews (23%). Those numbers are depicting the increasing traffic from social media sites to online retailers, which is equivalent to the percentage of the increment of the digital advertisement operations (Experian Hitwise, 2010).

Regarding the way of searching, even though they have more options on filtering metrics, consumers continue to use price as the main factor to sort online information. The second most important attribute on filtering is the time of delivery, while at the same time more mature and digital savvy consumers prefer to examine all alternatives by product representation (Reibstein, 2002). More specifically: Search engine users often pick the first or second results on the first page, and rarely go at results beyond that. This makes the performance management extremely competitive and serious for digital sales. This is also related to the fact that consumers' trust for official websites of businesses is increased in comparison to other retail stores whose products may include commission. However, the major obstacle for consumers choosing websites is that they can be not comprehensive or competitive enough. No website can cover the entire market availabilities. This suggests that consumers weigh more highly easy navigation and price comparison than their lack of trust in websites (Heidhues and Koszegi, 2009). On the whole, consumers feel that they can find better deals online because they have access to a larger variety of products and hence, they are able to find a product that matches better their preferences (EIAA, 2010).

Information diffusion in conjunction with consumers' new searching habits didn't make consumers only more conscious, but it also transformed them to promoters or detractors of services and innovation contenders. New generations feel the necessity to give their feedback and be taken into consideration as well by the brands they prefer. Young consumers seem nowadays to invest more time on blogs and other users' reviews, reviewing and exchanging ideas with other page visitors than navigating on official sellers' website. As a defensive move, number of companies are now asking for more interaction with customers on their own websites by adding imbed review fields on each product and service page or by using Internet monitoring tools. In that way, customers do not have to move to another page to find trusting source of information. Turning consumer generated reviews and texts to insights has been proved as one of the most significant processes for marketing and decision making. Satisfaction or dissatisfaction comments, arriving in many formats and through different channels, could improve consumers' experience and subsequently brand's performance (Osti, 2016). Customer awareness about products and services perspectives renders them more demanding and less loyal in case their expectations are not completed.

In this part of dissertation there are some of the most important reasons why customers' feedback today is so relevant and necessary for business acceleration. Bringing instant feedback from

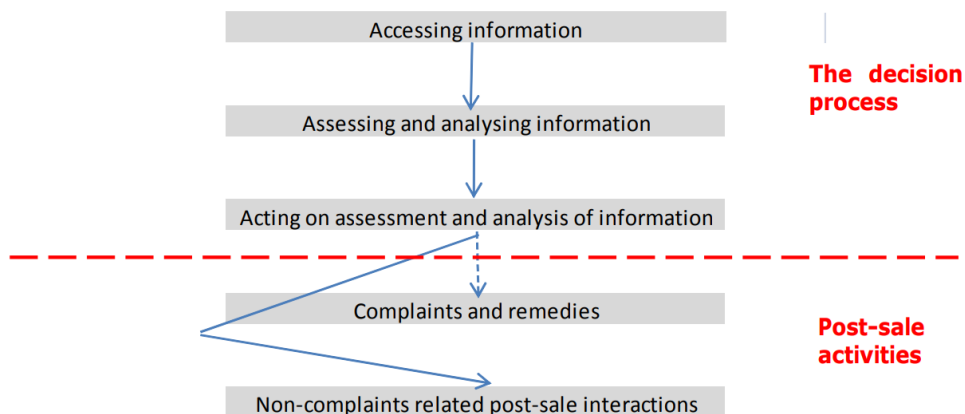
customers, digital channels can help development process teams to understand on time and intervene for optimization, if a specific-end product is finally solving a problem or fulfil a need. Most innovative companies meet or even exceed users' expectations, by understanding and taking extensive advantage of their customers' feedback. Those companies have been proved to build stronger competitive advantages. Monitoring customer satisfaction with online surveys / questionnaires, for instance, constitutes a usual practise by firms to find out how their products are performing. Social media could also help businesses, as the star ratings review is a simple way to measure and interpret how the brand or a specific product are reviewed. Most of the companies try to deep dive into the reasons behind and conclude to quantitative assumptions. These could be usually arising from various survey techniques that allow firms to understand, when a procedure, product or service begins to take a downturn. If this is the case, corrective action can then be taken before a negative impact takes hold (Osti, 2016). Finally, customer feedback is mainly targeted to the optimization of customer experience and retention which helps businesses gain more opportunities for revenue uplifts and/or upand cross-selling, while satisfied consumers are more likely to recommend a brand to a friend and remain loyal. Continuous awareness of firm's performance allows finally managers to be more flexible to better plan business and marketing decisions (Osti, 2016).

Compared to the offline market, digital market has been by far more interactive. The growth of social web allows users' interaction to flow faster making people to shrink (Gunelius, 2010). People do not only have unlimited access to content for consumption, comparing and reviewing, but also the opportunity to enter the market as content creators and sellers. This revolutionary change turned customers into "prosumers", bringing a flourishing in innovation and creativity in the market by their voice. In this "prosumer" status, people don't act like consumers, but they try to produce content online that may be also consumed by other consumers. "This consumer behaviour makes all owners of this content prosumers, in other words the distinction between consumer and producer ceases to exist" (Gunelius, 2010). Ebay, Alibaba, Instagram, Youtube, Snapchat and more recently Facebook Market are the most popular digital markets, where people can create, upload, compare and sell things (Directorate-General for Internal Policies, 2011). The increase in the number of prosumers, along with the product and information exchange, has created a highly competitive digital framework but it has arguably exacerbated other issues, like copywriting (as argued by Helsper, et al., 2010) or illegal content. It is apparent that one of the benefits of the digital markets is the instant and unlimited access to content, which facilitated new demand patterns - domestication, mobilisation, globalisation and personalisation - widening the breadth of content available to users though access to online forums, markets and libraries, etc. (Screen Digest et al., 2006).

Consulting Groups and businesses have been analysing and identifying all possible digital ways of purchasing process and the average profile of the – undoubtedly more rational - digital consumer. This analysis delineates changes in consumers behaviour and helps businesses to follow or drive trends. Rational decision-maker, using all available information, weighs up the pros and cons of different choices before choosing the alternative that maximises her/his utility. Economic and Scientific Policy Department of European Parliament depicts, in its analysis for “Consumer behaviour in a digital environment”, a consumer behaviour diagram with **two different stages** – decision process and post-sale activities – which include **five different sub steps** in consumers behaviour.

- In the first stage rational consumers would be expected to seek and assess a quantity of information - **Decision process**
- Consumers afterwards assess and analyse information they have collected – **Decision Process**
- Consumers would be expected then to take action on their assessment - **Decision process**
- Once the purchase is done, here a problem may arise in which rational consumer would seek redress through a complaints process designed by the firm - **Post-sale process**
- Or non-complaint interactions may occur - **Post-sale process**

Figure 4 – The consumer purchasing process



Source: Economic and Scientific Policy Department of European Parliament

Empirical studies show that consumers do not always use all available information at their disposal (Payne and Bettman, 2001; Bröder and Newell, 2008; Deshmuckh, Fatemi and Fooladi, 2008; Timmermans, 1993). There are lots of cases where consumers may not follow the most rational firm

assumption but instead exhibit **behavioural biases**. Such biases related to cognitive limitations and framing information affect the ability of consumers to search the market, make comparisons between products and thereby exert competitive pressure on firms. Some of the main behavioural biases are listed below:

- 1) **Cognitive limitations**: People in this phase have limited ability to assess information or choose between large numbers of alternatives (London Economics, 2010).
- 2) **Default positions**: Consumers appear to be heavily biased in their decision-making by their endowment or default position, and as a result, they may fail to properly consider alternatives to their default product or supplier (Kahneman and Tversky, 1979).
- 3) **Hyperbolic discounting**: If consumers have a choice between a large and a small payoff in a given time period, consumers will prefer the high payoff. However, this may not necessarily be the case, if they have a choice between a small pay-off in the near future and a larger pay-off in the more distant future. Hyperbolic discounting would predict that consumers, in this case, prefer to receive the smaller payoff today rather than the large payoff in the future. This implies that the consumer's preferences with respect to the two options are not always identical across time, and as a result, consumers may, for instance, overspend today with the intention of saving tomorrow (DellaVigna and Malmendier, 2004; DellaVigna and Malmendier 2006).
- 4) **Loss aversion**: Consumers tend to put more weight on losses than on gains of equal size and consumers may be overly concerned about avoiding losses (Karle and Peitz, 2010).
- 5) **Framing of information**: The quality of consumer decision making is sensitive to the way information is presented to them (Office for Fair Trading, 2010). Such behavioural biases may impact on the quality of decisions consumers make and their ability to make rational decisions.
- 6) **Accessing information**: Behavioural biases may imply sub-optimal search effort. For example, cognitive limitations may imply that consumers search less and stop searching when they find a good-enough solution rather than continue to search to find the best solution. Default biases may also lead to reduced search effort.
- 7) **Assessing and analysing information**: Behavioural biases could make difficult for consumers to accurately assess their alternatives. Assessments may, for example, be influenced by reference points defined by consumers' default position, mis-predictions of future demand and an over-emphasis on possible losses. As a result, consumers may overestimate the price they are willing to pay for a good or a service, or the quality of a product or service. Cognitive

limitations may also imply that consumers adopt rules of thumb to help them to assess information.

- 8) **Acting on information and analysis:** Behavioural biases may imply that consumers choose the wrong product or service, or alternatively, they fail to choose at all. For example, experiments have shown that consumers may fail to make a decision if there are too many alternatives available to them (Reeson and Dunstall, 2009) or if they are overconfident that they will make a decision in the future.
- 9) **Complaints and remedies:** Consumers may place too much emphasis on potential losses associated with making a complaint and asking for redress and may therefore choose not to complain even if they have a legitimate complaint.

Companies experiencing such behavioural biases (from their customers), are trying to delve into them at each step of purchasing process and benefit from them. There are cases firms sell poor quality products on scattered digital markets and try afterwards to discourage indirectly customers from making complains, which seem to be a very costly process even in the post-sale activities (Directorate-General for Internal Policies, 2011). When consumers purchase, for instance, things in the digital environment they may experience a change in the type and magnitude of problem incurred compared to purchasing offline. A consumer's propensity to complain may change when they order a good online as opposed to buying the same good in a bricks and physical store. A rational consumer would complain to the seller or consumer authority, if they experienced a problem with their good or service. But there are still consumers who choose not to complain in real life. Behavioural economics suggests that this may be because consumers place too much emphasis on potential losses associated with making a complaint and asking for redress. Someone could expect that exploiting market imperfections is impossible in a competitive digital environment, but this is not always true. It seems that most of businesses are adapting quickly themselves to the new regime. Consumers are deeply convinced that e-commerce is associated with transparency and a fairer competitive environment, provided that they dispose time for search. A literature review published by the UK Office for Fair Trading (OFT) recently showed that improved competition in the digital environment can bring better outcomes for consumers, under the condition that behavioural biases do not affect consumers' desire to find "advantageous options". Yet, consumers' default positions and potential biases may not change the slope or position of the consumers' demand curve. Firms are still regarding customers as if they belong to the standard model of rational behaviour and compete with other firms given these adjusted curves and face demand-side competitive pressure (Heidues and Kozegi, 2008; Karle and Peitz, 2009; Eliaz and Spiegler, 2006).

More uncertain than ever before, the market includes thousands of businesses around the world that increase competitiveness. However, sometimes there are no more incentives due to the fact that customers' search is continuously affected by the aforementioned biases or the constant entry of new businesses in the market, which does not necessarily improve consumer benefits (Chioveanu I. et al., 2009). This phenomenon can be observed when firms lose their incentive to offer "better deals", as they can't compete the entire market (Directorate-General for Internal Policies, 2011). For avoiding such phenomena, businesses have the option for further enhancement of products and services, the focus on customer experience and the standardisation of information to make information less complex and focusing on innovation, showing their importance to consumers (Office of Fair Trading, 2011).

The advantages of the digitalisation of the market are numerous. Low marginal costs of distribution, instant and unlimited access to product and services, increased creativity and finally innovation forced businesses to look at all prospects in the global market with a more optimistic attitude (Directorate-General for Internal Policies, 2011). The most crucial proof on that is that digital market changed the meaning of physical presence. Location, as a hindering factor, has been banded further growth companies due to the increased costs physical presence require. Internet access, the e-commerce facilitator, introduced easier interaction between businesses and consumers and broke once for ever the barriers to further sales. The challenge, though, is no longer limited to location and business processes, but rather to businesses' eagerness to respond to different customer needs.

The Business Response

Most of the businesses have recognised as an advantage the moving of both customers and retail to digital environment. Some of the most apparent benefits of digitalisation, which have already been above-mentioned, are the direct business contact with consumers and the flexibility in business operations. Some other effects, that appear in today's digital business environment, increase creativity, the need for more stable in-periods-innovation, administrative changes and a working environment friendlier to employees. Digital Market didn't only give new opportunities to firms to approach consumers by offering them new products and services but achieved to holistically change the entire market entry framework and the activity of a firm throughout its life. The frictionless digital

marketplace created by digitalisation, has now lower entry barriers and reducing potential for suppliers to develop and utilise market power (Office of Fair Trading, 2000). Moreover, changes in business operations are especially influencing not only the business sector itself but they are also having an impact on society. Among the advantages can be considered the following: a reduced environmental impact from e-commerce transaction, a more efficient supply-chain management for better customer service, forums that encourage dissemination of information and finally a more transparent digital market that improves consumers' loyalty to digital brands. It is important to remark that Office of Fair Trading has identified that several business models have been developed to require different design in sales strategy, trying to wander in the new digital environment (Office of Fair Trading, 2007a):

1) **Pure Play** concerns businesses that decide to sell purely online and they don't have available physical channels customers can visit (or if they have, they are limited in number). While they may incur greater costs for establishing brand awareness and loyalty, most of the times they maintain lower costs in terms of infrastructure, staff and inventory compared to traditional retailers (offline).

2) Firms choose to have both physical and digital presence define as "**Bricks and Clicks**". Those businesses use the digital channels more for marketing purposes by attracting new consumers and by offering maybe a wider range of products on their websites. The business model is based on the fact that lots of consumers often browse things on websites but they eventually buy them offline. Sometimes, though, this model seems to be costly, especially for established brands, trying to combine their existing distribution (Office of Fair Trading, 2007a).

3) **Third-party platforms**, playing an intermediary role, include online auctions and other electronic marketplaces which allow firms to approach consumers they may not have been able to attract before. This model is often used by small and new businesses, like start-ups, as they are more likely to sell through such platforms.

The large numbers of online sellers and the competitive pressure resulting from them, forced businesses to redesign their strategies or to draft new ones. E-commerce and Social media are some of the main developing areas that require careful strategy, as these help firms to create brand credibility, which is based on advertisement elements, customer reviews and networking sites (Marcinuk, 2017). Although pricing strategies seem to be more efficient to customers, online stores offer other varying degrees to upgrade customer experience, like for instance, speed of delivery and loyalty programmes. Industry stakeholders argue, however, that a combination of offline and online strategy is necessary. For example, online advertisement is directly linked to interaction with customers, and behavioural data (resulting from these interactions) which is not equivalent to offline advertisements. This helps sellers to find out which advertisements work better for the offline and

online environment, with potential differentiation or alignment between them, making firms far more efficient comparing them to those who use exclusively offline – traditional channels. The conclusion deduced is that online market and advertisement can sharply change the way business used to operate and advertise on offline channels. At first, online advertisement concerned mostly generate click-throughs to the seller website bringing more sales through offline channels, but nowadays online advertisement recognised to be more interactive and with the ability to build brand awareness like traditional advertising. The evidence of the existence of wider online advertising space comparing to offline is the extensive use of advertising budget for financing content websites. It is estimated that during the last decade the total value of online advertising expenditure in Europe in 2009 was at €14.7bn – Greece has the largest growth with 49% - while in 2017 the investment increased to €22.5bn. This percentage variable amounts to a like-for-like growth in online advertising expenditure of 65% (ET Bureau, 2017).

It shouldn't be surprising that the first well promising results of online advertisement brought the evolution to the advertisement sector. Internet has facilitated the targeted advertising that is more relevant to their needs. Instead of spending thousands of euros, sometimes billions, on mass broadcasting, firms can pay for highly targeted activities for selected groups of consumers. This activity has become known as "behavioural targeting" or "micro targeting" which has been expanded to all other business activities. Such targeting techniques include rules, comparative filtering (related items) and behavioural targeting based on inferred behavioural grouping. In comparison to digital users, firms find it more difficult to use traditional consumer demographic variables for approaching them. In response, they adopted new differentiated communication and operation techniques for each channel. New intermediaries act as information portals and help consumers process information that is available online and reduce search costs as well as the information overload. According to Perset (2010), the main functions of internet intermediaries are: to provide infrastructure, like collecting, organising and evaluating dispersed information; to aggregate supply and demand; to facilitate market processes; to provide trust; and to take into account the needs of both buyers/users and sellers/advertisers. Some of the main intermediaries' business models are:

1) **Advertising model:** Free intermediary services and content is provided to consumers alongside advertising or branding paid by sellers.

2) **Paid subscription/charging for premium services:** Users, consumers or businesses are charged with a periodic fee to use an intermediary service. There are various ways in which this works including monthly subscriptions, usage charges and item charges.

3) **Brokerage fees:** Operations such as eBay are examples of brokerage models. They bring buyers and sellers together and facilitate transactions. Fees can be earned either by a level of commission on each transaction or by the use of membership fees.

4) **Voluntary contributions:** Website services and content is free, but adverts are placed to encourage users. While some online intermediaries (such as Amazon) have large warehouses, intermediaries that only provide a sales platform bringing together sellers and buyers have the advantage of not having to manage stocks and warehouses (Perset, 2010).

More and more people consume when they are at home or when they are on the move. In 2008 no more than 7% of European Consumers have bought something by their cellphones; a percentage that have been tripled 10 years (Heidhues and Koszegi, 2008). “These trends are facilitated by new technologies such as internet and mobile phone services with 24-hour access to sales platforms making it possible for consumers to make orders” (Directorate-General for Internal Policies, 2011). Online market and advertisement may have increased direct purchases, but consumers seek for information related to the intended purchases, while bumping at annoying and irrelevant online ads. On the other hand, aggressive advertising with intense targeting on customers may also have concerns over privacy risks. It should not be forgotten that until that time, law framework was not clear (or ready) about where the focus should be laid on, who should be protected and what the meaning of “prosumers” is. Although more than half of the Europeans declare that there is an additional risk of online fraud and/or a risk of illegal access to their personal information, they appear a discrepancy between their stated preferences about privacy and their actual behaviour (Directorate-General for Internal Policies, 2011).

Customer-driven innovation has become a competitive battleground in every sector, expecting over time, become a viable channel within a company’s innovation strategy. Consumers today don’t hide either their expectation or disappointment and always waiting for the next big launch. Dealing with this immense pressure, more and more firms are developing new product ideas, conducting focus groups and putt the customer at the heart of their innovation efforts. Besides constant feedback from customers, most companies understand the advantages of evolving their customers in their product enhancement efforts. To achieve the best results, though, they need to ensure that they have a solid business case. Turning customers’ expectations into reality, tangible products build incredible loyalty and engagement – two highly treasured commodities in a competitive marketplace. Firstly, defining rules of product development ensures the creative energy of customers and staff is focused in the right strategic direction for your company. Even customer expectation management could be proved to be a significant move for a firm. This means that firms need to firstly determine what ideas they want to embrace, as many of these ideas need to be

implemented through partnership with other companies, outsourcing and acquisition factors. Taking also into consideration input and feedback from customer base, firms need to avoid making decisions based on the input of a vocal minority, which may include people outside of relative segment or even the whole customer base (Lee, 2015).

Retailers are now organizing their physical and digital stores on two specialized directions, meant to serve customers efficiently according to their needs and the other considered to focus on fulfilment of experience, since the two directions differentiate dramatically from each other. In order to stay ahead of competition, most companies constantly search for clients' comments on social media and reviews. Thanks to well-established companies like Apple, Google and Amazon, consumers expect more from every organization with a seamless user experience (Markovitch, 2014). Lots of traditional organizations have not the ability or the perception of how to meet their customers' expectations in contemporary digital environment. This lack of handling customers' expectations from the part of traditional organizations enables new-comers to disrupt the market with brand new, innovative and digital products. As I have discussed in the previous chapter, most of the times, staying in a passive mode is not an option for companies. Competitive companies are now not only accelerating digitization, but they are also cutting the number of steps required in customer journeys, reducing the number of documents, developing automated decision making, and dealing with regulatory and fraud issues (Marcovitch, 2014). Budgeting shaping also has changed the prioritization. The competitive market requirements don't always involve customer experience issues but mainly the cost of operations. By digitalizing information, costs can be cut by up to 90%. New software systems, instead of paper and manual work allow firms to better understand their performance, better drive their budget and address problems on time. Leading, however, big international companies have come to recognize that the traditional large-scale "migration" projects to the digital world often take a long time to deliver any kind of impact. Smart small and big businesses, even startups reinvent the existing processes and rebuilding them by using cutting-edge digital technology. This transition usually takes time in a series of short-term releases combining traditional process-reengineering methods, like leaning with new agile software-development methodologies. Support function units, like HR, need to tackle an end-to-end process involving customer experience. To do this, some firms are creating start-up-style, cross-functional units that bring together all colleagues—including IT developers—involved in the end-to-end customer experience. The cross-functional unit has the mandate to challenge the status quo. Members are often collocated to improve lines of communication and ensure a true team effort (Marcovitch, 2014).

In traditional deployment, a new solution is rolled out progressively across sites to existing user teams. However, a different approach may be needed, when organizations undertake digitalisation, because of the radical changes of the processes and the supporting organization itself. For example, telecommunications salespeople may prefer customers to apply for services through the existing store system instead of self-serve kiosks. In these cases, it might be easier to roll in a new organisational unit to handle the new digital process, and then bring employees into this unit while simultaneously increasing the volumes handled by the employees. This ensures a much easier transition to the digital process by avoiding giving too much energy in changing old habits and behaviours. By the time all process volume has migrated to the new digital process, the new organisational unit will have “swallowed” all the required employees from the legacy units. In general, companies that digitize processes can improve their bottom lines and delight customers. The value at stake depends on the business model and its starting point but can be estimated by allocating costs to end-to-end processes and benchmarking against peers. To kick-start the approach and build capabilities and momentum, organizations can undertake one or two pilots and then scale rapidly. The meaning of innovation has been determined, based on the compliant consumers’ needs and according to the actions of self-financing possibilities of companies and investors. Michiel Schipperus, CEO of Sana Commerce, said: “It’s do or die when it comes to digital transformation projects...”. The world moves at a fast pace and companies try to be dealing with digital disruption and be sufficient enough for the subsequent internationalized market. Lots of researches, however, suggest that digital transformation processes can be proved to be radical, risky and expensive. This is happening because sometimes businesses are driven mainly to increase competitive threats rather than innovation, without bringing successful stories. Millions of businesses from banking, to agriculture, payments, insurance, healthcare, construction are on the brink of new disruptions and are trying to shift from the existing focus area to new opportunities. With new generations to prefer by far working on digital channels, there is an improvement in customer service need to be placed by companies, through multiple digital channels including Social Media, Chatbots, Voice Communication, Emails and Digital Forms (Kowall, 2016). Unification, accordingly, personalisation and fast touch points are valued by today’s users; so the existence of these channels is not enough and that makes them a potential source of complaints.

However, there is not only optimism and perspectives for the digitalisation period. The results of a recent survey that addresses businesses are quite revealing. More than one third of the firms believe that when it comes to bringing internal infrastructure processes, digital transformation projects may significantly delay or fail, having competitor’s advantage and competitive pressure as a result. The above situation may be caused either by competitors (38%) and the cheaper overseas

suppliers (34%) or by imminent or even potential new online market entries (35%) (Sana Commerce Research, 2017). To efficiently compete with competitors and new entries, firms believe that digital market being a new territory of innovation plays a crucial role on keeping existing customers and acquiring new ones. Despite cautiousness, the belief in “digital” is so great that organisations declare that they are expecting to sell 100% of their products online in the future. Being the core of this change, e-commerce is the gate to firm’s customer experience and that makes approximately 2/3 of businesses globally to develop all over the world. The difficulty of this change lays on the fact that only 4% of the aforementioned have completed relevant projects. The most predominant threat is the highlighted disconnects between what commercial unit wants to deliver and what it’s able to execute by IT (Ismail, 2017). Other challenges that may threaten this transformation outcome is legacy technology. First-movers, well known as start-ups, are entering now easier into the markets as administrative costs, costs of experimentation and computing (rental of resources and software) continue to decrease. On the other side, more and more existing companies, scaring for new entries, are creating labs and innovation centres with the aim of keeping on the track if not making the extra mile.

Thousands of businesses, especially the large ones, have been investing the last decades on systems that replacing does seem to be a very costly option. Internal culture and resistance to change could also hamper cooperation and finally the final product or service (Ismail, 2017). This makes talent acquisition another axe of digital transformation – beyond processes and technology. No matter how much has been invested in new technologies and platforms, a key factor for the execution of digital transformation is people. Today, there is a great difficulty in attracting/finding and recruiting new talented people who have been interest for a new type ecosystem which will accelerate social impact and innovation. Facing the era of change, the market is constantly transforming (Riesco, 2018).

Agile Methodology and Work Culture

Bureaucracy, even if it sounds illegitimate or incomprehensible, was once a progressive innovation which helped businesses operating hierarchical procedures and enabling them grow faster. Nowadays’ framework is completely different and demands a lot of effort for enabling companies to remain or become sustainable. Strict hierarchical waterfall structures are now highly challenged and

constitute a main barrier for the business' adaptability and growth. Customers' perspective and expectations about how a business should run, listen to its customer and sell products lead them change their operations and arose the need for more flexibility. As I already mentioned, organizations, developers and engineers don't always have the time to bring new innovative products and services, while in the meantime competitors can approach new customers by satisfying these expectations for more innovation (QASymphony, 2017). From employees' side, they declare that bureaucracy is one of the most common reason why they feel disengaged from their work and one of the main ones for moving to another company (Rigby, 2018). Agile methodology came to minimize that risk by making companies more adaptive and people, working there, more efficient, open to communication and successful at their workplace by learning how to respond efficiently to changes, so as to thrive in an uncertain and competitive market.

In late 1990's, agile methodologies, among others, gained public attention mostly due to the potential collaboration that could be built between business stakeholders and development team (Agile Alliance, 2013). After some years, seventeen software development practitioners in 2001 discussed and expressed their approaches in a **Manifesto** with the aim to encourage better ways of developing software. This includes a collection of twelve principles - listed in detail at the end of this thesis - which defines the criteria for agile processes. Their experience of developing software was the main factor that led them proclaiming four central tenets – values which form agile movement (Brian, 2001):

- 1) **Individuals and Interactions** over processes and tools
- 2) **Working software** over comprehensive documentation
- 3) **Customer collaboration** over contract negotiation
- 4) **Responding to change** over following a plan

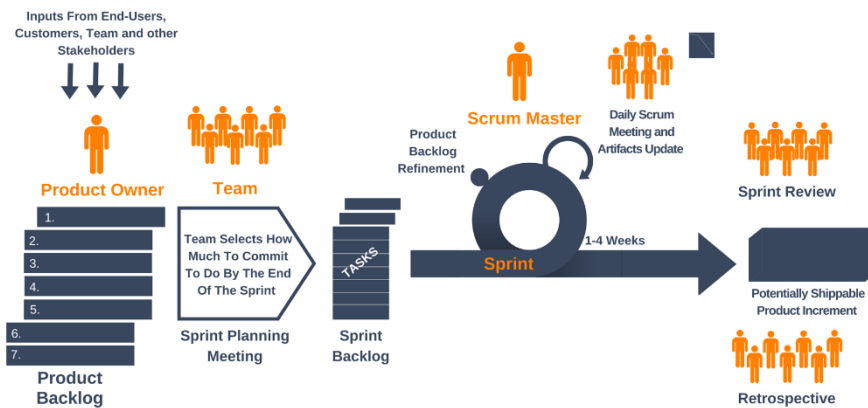
The agile approach focuses on software development through which all requirements and solutions are evolving through collaborative effort of self-organizing and cross-functional teams (Collier, 2011). A basic element of this methodology is the documentation which stops being the most important thing and is being replaced by the pure creation of software for the effectiveness of this attempt. Adaptive planning, early delivery and flexible response to change to the continual improvement are also structural elements of this methodology (Agile Alliance, 2013). Even late code development and the embracing of late changes are very welcome because that makes an organisation competitive (Ambler, 2014). Scott Ambler, a Canadian Software Engineer, has emphatically elucidated that in "agile", people working together is far more effective than tools,

processes and signing contracts. The idea invests mostly in people's understanding regarding the way of which a potential problem can be resolved and the project planning; both elements are important for arising requirements and rigid changes in technology.

Agile teams and methodology principles came to work more effectively in the current circumstances. Teams, declaring first their independence, are structured to making immediate small improvements instead of waiting for perfect solutions; and that with the support – not the control - of managers and executives. Members of methodology are liberated, comparing to traditional waterfall teams, to work in competitive in-house programs much more efficiently (than vendors) and to scale agile throughout the enterprise (Rigby, 2018). Far more motivated and working together collaboratively, agile teams build projects in an environment where they have the support and trust by the company to get the job done. The respect to one another is a reality and prerequisite, making members of the team realize that they are the primary success factor in software development (Ambler, 2014). Common results, therefore, of agile methodology are the increased higher team morale, better ability to filtering and setting priorities and faster time to go-to-market processes. With a single goal of sustained and stable mighty productivity, agile has become these last years the default team based operational model for most technology companies regardless of its sector and size (Gothelf, 2017). Besides, technology companies from other sectors are tempting to become part of software-development methodology and are hiring agile and digital transformation consultants, in order to be able to respond to today's changing market demands.

The main goal is the creation of a center of expertise / excellence inside of a firm which is full of skilled staff, ready to be called upon to digitize processes quickly. In order to do that, there are predefined processes that teams follow and espouse short cycles, regular reflection activities and usually corrections, based on insights collected. There is a breakdown of product development into small increments (iterations or sprints that last from one to four weeks) and specific predefined roles in cross-functional groups including planning, design, coding, testing and analysis. At the end of the iteration, a working product is demonstrated to stakeholders so as changes eventually to be adapted quickly and have an available release at the end of each iteration (Moran, 2014).

Figure 5 –Agile Development



Source: HSRS GLOBAL PRINCE2, 2017

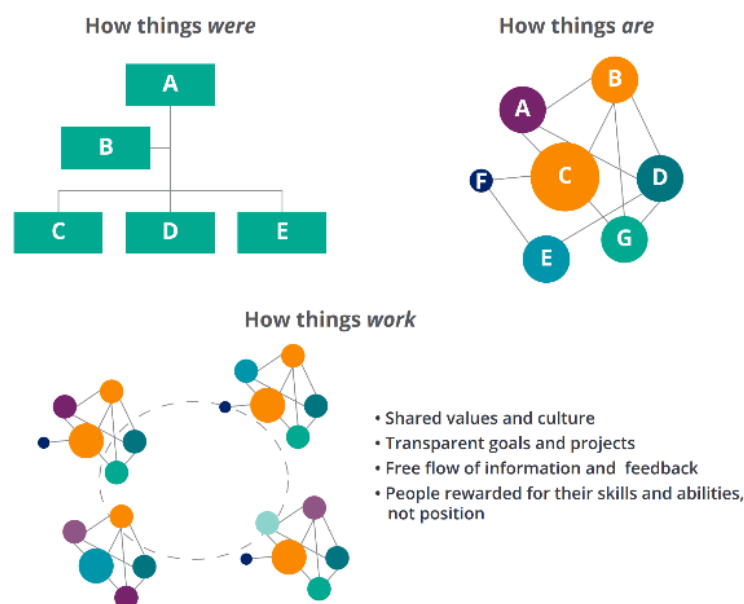
Product managers or **product owners**, on behalf of stakeholders, constitute the connecting link between a product/service function with all team members (Gnanasambandam, 2017). This role is also responsible for the team commitment and for answering all question of developers throughout the iteration/sprint. The most popular characteristic in agile is the “daily scrum” or “daily stand-up” which is a session of all members of the team with Scrum Master, discussing about the work has been done and what is about to be done towards the goal. **Scrum Master** is responsible for removing impediments and fostering an environment for high-performing team standards and continuous flow (Scaled Agile, 2015). At the end of each iteration, stakeholders and customer representatives or customers themselves (internal or external customers) have a cadenced meeting to review progress, re-evaluate priorities and ensure alignment with real customer needs and company goals. If the outcome is not the desired one, some of the initial plans need to be re-assessed and potentially there will be some changes in the next sprint.

The biggest challenge for large organizations, however, is the expansion of agile mindset to their entire structure. When executives and HR embrace agile principles into organization, they should be fully realized, as they commit to strict timelines and goals for increased productivity, efficiency, and higher-quality products and services. (Gothelf, 2017). Except that, the investment funds needed for shifting to “agile” and human capital are very high. This is due to the fact that there are lots of differentiations between agile and waterfall model; with agile (on a continuum from adaptive to predictive methods) lying on the adaptive side (Boehm, 2004). This side is a rolling wave approach, which, by adapting and focusing on changing circumstances, keeps flexibility in the path of reaching relative milestones (Larman, 2004). A change of the business operation reality means, in other words,

the change of the team as well. This is the reason why adaptive teams have no ability to report with accuracy their tasks for next month. While predictive methods focus on early phase analysing and planning the future in detail, making therefore difficult any change in direction, agile models keep adapting over time. Another differentiation between agile methodology and waterfall model is the approach of quality and testing. In agile, testing is embedded in an iteration as programming, in which it is easier to use and validate new pieces and evolve in response to changes, while in waterfall method there is a separate phase for that (AltexSoft Inc, 2016).

The Decision-Making process in agile world also seems to be different from the current established procedures. The emergence of product manager seems to have eliminated the monopoly of decisions taken by leaders, who influence, like a mini-CEO, the progress of each project timeline and product’s launch, the execution and the external orientation of the organization. The role is characterised more for the less time spending writing requirements and trying to oversee engineering execution (Gnanasambandam, 2017). Working on daily and weekly improvements (releases), the whole team developers, analysts, designers and product managers work closely together in the execution pods to increase the speed and quality of software development.

Figure 6 –Network of Teams



Source: Deloitte University Press, 2017

Yet, the agile software development is not only full of positive aspects. The frustration is one of the main problems arising in agile teams that may be intense and is directly linked to slow progress in corporate functions (Rigby, 2018). The time limits are another problem in firms. Agile methodology has plenty of advantages, but it needs firstly to be tested and adapted by a firm. However, firms are not always willing to invest on new approaches, hiring new people, or changing business culture and new equipment. It is generally accepted that making your business run quickly isn't always easy. Most organizations, especially the big ones, even those that are technology oriented, they may encounter common problems, when they try to adopt agile methods (Beck, 2000). Many of these methods could be inefficient, too immature to be implemented while others are too "extreme". Trying for transition from traditional waterfall (development) method to agile one, some companies, meeting their diversified needs, adopt a Hybrid approach that mixes elements of agile software development and plan-driven approaches (Barlow, 2011). That's why various agile methodologies have been developed and have been tested around the global market. The numbers are quite revealing: 94% of organizations have been tested in some form of agile methodology but in the delegated organizations' report was referred that this adoption is not always widespread within their organizations, confessing a long way for maturity to go.

For an agile environment to thrive, it has been proved that there are three key tenets need to be taken into consideration. Firstly, **communication** is highly tightened up with how teams collaborate not only internally but also with all relative testers. The change on the vocabulary is a fact of this element. Agile vocabulary changed, making agile teams communicate more efficiently and in a more friendly and direct way, while at the same time people in another department may communicate with the same strict and cautious tone with their managers. As the change is a part of the work, people are members of agile teams need to develop **diversify skills**. These skills help agile teams to be smoothly adapted to an unstable market environment. By embracing an agile model, a firm has finally adopted a **customer centric approach**, in order to ensure that customers receive value as early as possible. Testers have play an important role in delivering this value but they need to take on a business mindset so that they can understand customers' expectations, desires and concerns and develop their testing strategies accordingly.

If someone Googles or Binges it, s/he will find more than 14 million results of different organisations' approaches. At the beginning, agile practices were only used by software development teams. Thousands of those have been working for decades, alone without carrying the agile label. Nowadays, agility has permeating in every department and employees are adapting agile principles as

a new way of working regardless their department. Business culture collaboration became a tendency, customer centricity a priority and a stable pace of improvement a principle.

It is obvious that customers demand simpler products and services. The simpler, though, they are, the more complex they became for development corporate teams. Managers and agile member must now take account intricate factors, like overseeing multiple bundles, pricing tiers, dynamic pricing, up-sell paths, and pricing strategy (Gnanasambandam, 2017). This need for fast, effective and qualitative code lead Human Resources to be transformed into a more pioneer department and draft again new – but necessary - ways of management, where individual teams work, learn, collaborate, deliver and improve things. While HR continues to constitute a support function department, working on recruiting, performance management, training and evaluations, it seems that it should initially change itself and to combine regularly work in a completely new framework. This framework contests some of the things we knew about the culture, work style, time (annual cycles) or the role structure. This transformation starts with recruiting process. With the contribution of digital coordinator selected to lead digital transformation, the recruitment team searches for new talents externally with new skills sets and roles. The upcoming pool of people, should be ready to develop all required technology components so that they can be reused across processes, maximizing economies of scale.

All departments will participate to some extent to this revolutionary restructuring with Human Resources being the driver of the change (CPrime, 2014). Agile changed everything. HR needs to make personnel decisions based on who will most effectively fill the agile roles needed for projects. This requires a paradigm shift in how HR practitioners approach their personnel decisions. Cross-training and inter-departmental skill sharing are the norm in an Agile environment (Larman, 2004). This meant that HR needed to revamp all training and development process. A more self-managed access to multiple educational resources allows the employees themselves to take control of their own development within strategic guidelines. In an Agile environment, just being promoted from management or production to executive or supervision respectively doesn't exist as a path. The roles are created, expanded, or eliminated based on the current needs and the strategic direction of the organization. Roles have been changed as well as the appropriate skills and the needs. People specialize in one thing is not anymore the trend and people can move from the one department to another are more likely to be adapted in agile framework. The success of team performance suddenly becomes much more important and maximizes the input of each member, according to the member's performance (CPrime, 2014).

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Rewriting the Rules of Today's Workforce

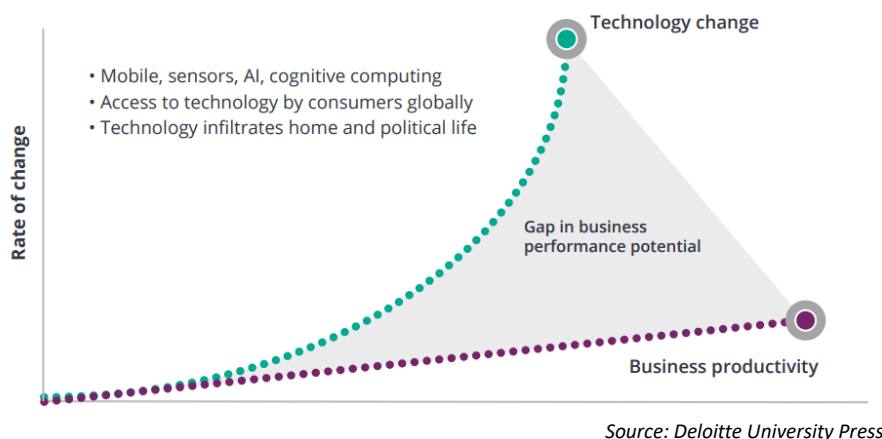
Talent shortages is a real HR challenge these days. Shifting corporate environment to digital age, Human Resources, leading this transition, is struggling to fill critical positions with new talented employees. Smart innovative products and a high salary was proved inadequate to keep talented people inside an organisation. Given the fact that HR has been working more on different pillars, like new career paths, learning opportunities and candidates' experience. It is true that candidates are being appreciated by their employers are more likely to choose this company (Bobryk, 2017).

With all challenges and business expectations arising across the global market, businesses and HR leaders are called to rewrite the rules for how they organize, operate and manage workforce. Agile management is now a global movement transforming business world and the way operators and people interact to each other. Most well-known companies have already been fostering the advantages of adapting agile principles, showing trust for the new way global market is going to follow (Denning, 2018). The impact of implementing agile methodology is so great that, according to the Deloitte Survey of 2017, 94% of HR Leaders worldwide, respondents report that **agility** and **collaboration** are the keys for organization's success. Agile way of management is not an easy modification that happens in one single day. It concerns the adoption of tools and practices but also the deploying of an agile mindset by all employees, something that needs time. All agile flavours include to a certain extent core principles organization need to adapt. These principles do not only change the way business operate but also modify employees' role and its significance in terms of their contribution in the team, as this attempt of transition would be impossible without people believing in it (Deloitte University Press, 2017). Putting customer needs in priority, it is presupposed that organisation should have eliminated anything that does not advocate this goal, and teams should to seamlessly work in a clear line of sight. With the traditional HR processes, business doesn't have the capacity to respond with this demand. This absence of capacity can be better depicted by how digital organisations address issues and manage their people: From operation view, instead of scaling up management to deal with complex problems, a digital organisation descales the problem into small pieces that can be handled by small teams more easily in short cycles. From core human resources view, it is more willing to discuss immediately with employees for getting continuously their feedback as well as the entire organisation to understand their view. In this way, organisations tend to be more like a set of networks of people where communication flow easily and new ideas come up. Even in an organisation that maintains disciplines not agile enough, agile teams communicate and collaborate in a way that solving problems together constitutes a common goal. In general, rapid technological

innovation has come in a period, when companies were still unprepared for that, with each one of them moving at a different pace. In 2018, there are three main ways in which HR operates: As an **executioner**, as **moderator** and as **agile business partner**, with some companies having a mix of these three archetypes. In contrast to the executioner way, which focuses on the financial success on execution, and the moderator way, in which HR pursues to balance all relative interests, agile HR is aligned clearly to the need of delivering value to internal and external customers (Denning, 2018). Anything that may not contribute to the final aim is set aside, letting therefore teams work as a part of a fluid network.

In the previous chapter, I analysed in detail what is the meaning of agile methodology and to this point it is important to explain why this transition from traditional way of working to the new one remains the biggest challenge of our days. Although technology improvement is unprecedently enormous, business productivity has not been following the same pace and it remains still low (Figure 4.5). The reason of that gap may vary. Some of the main core challenges have been business frustration stemmed from the economic crisis, relative human strategies in terms of management and development and the maintaining obsolete skills of people (Schwartz, 2017). This chapter focuses on the description of the main changes recorded on HR functions, caused by digitalisation of the market and the emergence of agile methodology. Deloitte Global Survey for Human Capital Trends constitutes a great source of qualitative information to lead to the right conclusions, as it is based on replies of a 2017 survey to more than 10,000 HR and business leaders worldwide.

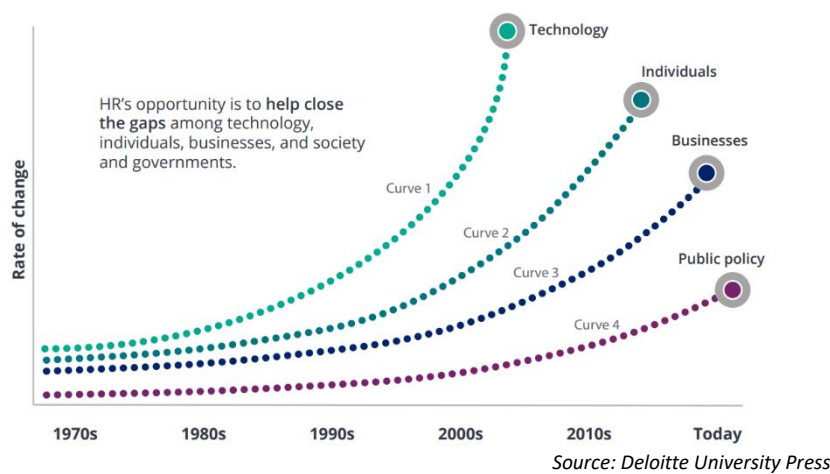
Figure 7 – Business Performance Gap



The sequence of moves in market appears to be simple. Society and people have been extremely eager to adapt new innovative products and service. In contrast, business world follows with more difficulty and delay. Companies seem to develop their structure and design according to

data from previous years and obsolete customers' preferences (Figure 4.6), making it more necessary than ever before the need for the structure revising to keep companies in the loop. Any organization that will not understand this and follow the revives rules, will likely fall behind. These rules are reflecting the shift in behaviour and culture required to lead, organize, motivate, manage, and engage the 21st century workforce. Business is called now to cover not only the gap between businesses and customers' needs (individuals) but also to overcome their expectations by adapting very fast technology innovations (Deloitte University Press, 2017).

Figure 8 – The Real Gaps



The change repositions the orientation of the work. First and most significance change is that on management. Organisation hierarchies are being replaced by networks and ecosystems that give a different meaning on business relationships. The question “For whom do you work?” became “With whom do you work”. This is because today firms operate in a different manner than in that they used to operate during the previous decade, with all legacy practices, systems and behaviours. High-performing organizations obtain a more digital profile, redesigning themselves to move faster and be able to adapt changes. However, many redesigns may fail as most of the organisation executive’s focus entirely on reducing costs, while this should not be a priority now. Agility and flexibility are two terms inconsistent with the obsolete hierarchical organisational structure. The effects of digitalisation, as I have already mentioned, were affecting not only the operations of organizations but also the employees’ role. Human Resources Units across the globe are now trying to keep pace with customers’ expectations for fast technological improvement and staff management. In the new digital era, the search of new talented employees the drafting of new working skills is the main business need. Career strategies that are been redesigned, focus this time on talent mobility, organisational ecosystems and

network structures, diversity and employees experience. It is evident that such profound transformations and reforms could not leave the leadership of organisations untouched as well. Below, the main changes observed in HR functions are stated:

Learning and Development

Maybe the most apparent and prominent effect of the fourth digital revolution could be summarised in Steve Jobs reference: “It doesn’t make sense to hire smart people and then tell them what to do; we hire smart people, so they can tell us what to do” (Tank, 2016). The interpretation of this sentence reflects the fundamental change of the nature of work, while the journey of a career path is totally changing, and no one could stop that. Unlike past decades’ trends, the meaning of career has never been so much connected to learning experiences. Organizations are changing fast and so does the prerequisite skills for employees. So, when it comes to the learning pillar, organisations and HR create the appropriate environment to help employees build their skills, to grow and thrive by integrating internal and external educational content into corporate platforms. This is the first issue emerged by Deloitte survey: The need to connect career paths and continue education (83% of executives, according to Deloitte Survey, are identifying continuous learning as important when it is combined with career).

Nowadays, a career itself constitutes a learning journey. With most people in western countries enjoying a prospect of at least 60-year career and simultaneously half-life of skills falling (figure 4.7), companies are now overhauling their career models and trying to develop Learning & Development Opportunities (L&D) and get ready for digital age. Although, both HR leaders and shareholders have started to believe that it is necessary to invest for business success, most of organisations worldwide are still in the early stage. Executives are mostly seeing this demand emerging by Millennials and Generation Z employees, who push for internal mobility, new opportunities and continue progress, as they are afraid of their careers being declined in a short time (Bersin, 2014). Universum survey results also underlines this need for making big organisations popular again, as new comers to the workforce are turning them away (Edmond, 2017).

Figure 9 – The Changing nature of a career



Source: Bloomsbury 2016, CreateSpace 2011

High-Performing companies and successful start-ups provide their employees with learning opportunities aiming at their progress. In the digital age, skills are becoming obsolete at a very accelerating rate (e.g. software engineers must redevelop skills every 12–18 months). Another reason why firms invest in Learning & Development is for employer brand purposes so as to pursue and continue to attract new young talents by showing them a responsible employee profile eager to help people thrive. The importance and imperativeness of the pillar is being proved by its correlation with innovation and leadership, both of which are structured over it, especially in technological organisations. This may bring radical changes that also influence other strategic areas, like business structure, operations and corporate missions. The focus, finally, on convergence, collaboration and creation of new cross-functional teams of different disciplines prove that learning new skills is necessary and not a free time activity (Executive Conversations, 2017).

Talent Acquisition & Employee Experience

Along with customer behaviour, digital acceleration has been also changing candidates' and employees' behaviour. Details of how and why today's generations are being separated from the previous ones were analysed in the chapter "New Generations in the workforce" (Page 21). Different kind of business channels like websites, chatbots, social media and blogs change organisation profiles and make them more accessible and transparent towards citizens, bringing them closer to internal business environment. As I have referred, nevertheless, HR recruiters are trying to find and court high skilled people, talent acquisition and recruitment is dealing with tremendous pressure, making it a top priority for most high performed companies (81% of Deloitte Survey respondents agree to this identification). Brand identity, social networking, analytics and other digital tools proved to play a

prominent role in the search for new talents. Rather than continue to upload job ads and recruit people in a traditional way, HR teams are now focusing on building new opportunities and responsibilities that will change the way people outside company regard and approach them. Employee value proposition, subsequently, can be seen as a different but important marketing structured HR pillar to help on strengthening both a positive pre- and after-candidate experience for candidates, as well for new and existing employees.

Digital tools along with all new innovative methods, are enriching recruitment procedures, and manage to invest in both new relationship-building skills and elements of entertainment. Some of the most promising and well-established ones today are the use of psychometrical and emotional-metrical gaming tools, digital interviewing platforms and new gadgets which are relative to the area of Artificial Intelligence (AI). Such tools have been mostly embraced by recruiters with the aim to replace time-consuming processes and tasks, which also improve candidates – employee experience. The main argument on that is that, before even joining a firm, candidates can experience different kind of corporate things which are depicting also the business culture. Virtual Reality (VR) and Augmented Reality (AR), for instance, has penetrated to HR Activities, like recruitment and training processes as the two innovations can be used to break the barriers of physical presence in a company. Firms, like PwC, has started using such technology aspects as a differentiated tech credential factor, providing jobseekers with a tour in its offices to get an idea of how is to work there, how is the environment and the culture (Everett, 2017). New generation seems to care more about corporate relationships, people's culture and a fun environment than the actual financial benefits. Alexa Merschel, PwC's US campus sourcing and national talent ID leader, explains: "Rather than give out the usual pens or backpacks, we provide more interaction – so rather than exchange a pen, we offer a change of experience, which might hopefully grab people's interest, so they consider PwC" (Everett, 2017). There are hundreds more recruitment-risk approaches, like the use of different social channels, innovative and entertaining ways to reach customers' needs, which are still been tested for drawing people' attention. Another example of the use of social media for recruiting, is McDonalds in which young candidates started in 2017 to be interviewed using Snapchat app. The organisation started sending invitation to Snapchat users, and anyone who was interested could send back a 10-second short video presenting him/herself using a filter wearing the classic uniform of the firm. If the video was reviewed successfully, candidate will receive a link to formally apply for a role. The whole project began with a goal to lure in more than 250,000 potential candidates just in one summer period in the USA (Moon, 2017). Other companies in consulting and banking sector have started interviewing candidates through innovative digital interviewing tools as a first step for breaking the ice. Such interviews proved to be the best, easiest and almost costless way to get to know candidates that are

applying. In general, being transforming to a more digital savvy profile, HR is interfering to a more cognitive recruitment that shifts jobs and talent economy by adding job opportunities (Deloitte University Press, 2017).

Processes related to everyday working life have been transformed as well to change existing and new employees' experience. The strategy focuses mainly on the force of the word of mouth internally, that will be intense enough to change corporate profile externally. Employer Brand is a key factor to that by both enhancing candidates' and employees' experience with new initiatives. By paying attention to candidates' feedback, firms want to ensure that they will attract the most talented candidates out there. Posts on Facebook, Instagram, LinkedIn and Glassdoor, describing the corporate life or relative job search optimization sites are some main pillars transform company's current profile to a more digital one (Kourkoutas, 2016). The importance of social media accounts of corporate giants is immense. Students, from the one side, according to survey results, estimate official corporate websites as inadequate, while social media come up as the primary source of information to search prospective employers (Edmond, 2017). This is highly related to the transparency exists in open pages to users, mentioned in the previous chapter. From the other side, evaluating candidate's behaviour, more and more organisations try to make the most of their own social media accounts to attract them by creating campaigns and posts with worth mentioning things.

Employer branding and employer identity are directly linked with customers' perception. The whole work taking place in employer branding is contributing finally for cultivating and monitoring long-term relationships with potential future talent employees which will change or enhance brands identity. Posting news in digital channels is just the first step, as users consequently start – depends on the content - sharing news which is above any corporate communication strategy. Companies exposure, however, may be an underlying trap. Reaction like thumps ups, hearts and enthusiastic comments can attract random candidates' attention, but negative reviews can discourage candidates from engaging with the brand. Firms cannot always control on what users comment, but they have formed a strategic tendency to respond with grace and improve more brand's empathy. "Of 4,633 random job seekers, 48% had used Glassdoor at some point in their job search and 60% would not apply to a company with a one-star rating" (Bobyk, 2017). Organisations usually tend to train some of their hiring managers on interview techniques or to respond to any negative comment on their profile on LinkedIn or Glassdoor (Pavlou, 2017).

All systems developed in most high-performing companies encourage employees sharing information and quickly formed disbanded teams building new products in a couple of months. Talent acquisition units of companies know better than everyone else that millennials are seeking for culture

fit and pride about their work and the purpose this represents. With the role of future leaders, Millennials and Generation Z are more willing to apply for a job with high standards and lots of responsibilities which will have a great impact in the workplace, society, economy and finally the success of the company. Adding value to customers is an essential element newcomer employee ask for. If they don't feel this way, immediately questioning may arise about their role in company (Denning, 2018).

When it comes to firms' social media strategy, people are extremely honest and authentic and they overly express their opinion. Even in the case of organisations, Employer Brand it's all about what kind of employer they are and not what they try to be. This is the reason why Social Media Strategy in terms of Employer Brand is mostly related with giving people voice through testimonials and employees' moments of truth. As networked organizations continue to emerge, new tools are starting to make collaboration easier and help internal and external communication. Facebook's Workplace, Slack, Google Team Drives, Atlassian Confluence, Microsoft Skype, and hundreds of others are helping to facilitate the transition to the networking of teams. Nearly three-quarters of companies (73%) are now experimenting with such tools and are benefiting from these.

On the whole, companies now have been in the process of redesigning all employees' touchpoints and all relative candidates recruiting journey by trying to give them a glimpse of company's culture. New HR practices, for example, have come to let candidates have holistic conversations with employees, spending time in companies and get into employees' position for a day. These practices simply give significant insights of company's culture, helping candidates to understand how it feels to be part of the team, see what their potential co-workers like about their job, and the company and eventually decide where they want to commit.

The rise in the demand for talented employees with fast changing-skills and the enhancement of business transparency prevail in today's digital market. This encouraged companies to invest more in their real profiles. It should be also noted that companies have proved to be extremely sensitive when it comes to corporate values which should be aligned with those of the new generation. With new employees demanding a more productive, enjoyable and engaging work life, organizations do not just redraft employee engagement issues, but they also try to holistically radiograph the entire employee experience including work ethics manners, flexible working hours, vacation leaves, evaluation procedures or more simple things like workplace decoration and fitness activities. HR self-services, was one of the first steps of companies trying to understand better employee's needs, improve their experience by getting feedback from them and promote scores to measure employee satisfaction (Wikipedia, 2018). The importance and the need for improvement in customer experience

is being proved by the inference of lot of different elements in employees and employer relation and HR efforts on building programs, strategies, and teams, focus on that direction (Deloitte, 2017).

The evolution, except for the technological one, is taking place these couple of years over the change in business profiles with the aim of attracting and recruiting the highest calibre candidates. The traditional work spaces and offices have been giving their way to modern and brand-new design, reflecting the desire of employers to inspire employees and boost their productivity through work experiences and activity-based working (ABW) models. These models are popular for the comfort and the joy they offer to new generations. Organisations are now intensively trying to keep the whole thing simple and fun. To do that they include ABW models into their employer brand strategy, through a variety of forces of the overall workforce experience, from the high levels of employee engagement, entertainment and rewards processes to all potential career opportunities. Simultaneously, employees will be upskilled and learn new ways of working much easier if there's less pressure on them. Even job opportunities for students can be proved useful both for both organisation and candidates who are preparing themselves for the next career step. Even interns will not be chosen by a company for their first job, they will eventually win the bet of open talent economy either from talent mobility or from socially networked world which will affect candidates' decision to work there. With their importance to be equal with commercial ones, multiple unconventional candidates-focused campaigns are blowing. These campaigns, below employer brand and resourcing pillars, run to aware and attract potential candidates for available positions. It's a strategy game which is mostly related to communication and highlighting the strengths of each company.






The fact that new generation candidates asking for new career models, digital tools and activities, create an internal revolution inside companies that will finally change the total workforce to a more qualitative one (Deloitte, 2017). This influence depicted also from the fact that candidates believe that they are not themselves supposed to find their employers but the opposite. But let's take it from the scratch. The tremendous improvement of ABW would be impossible without technology which right now seems to be integral part of this newcomer trend. "Not only does it expect to have access to devices that can talk to each other and update automatically, virtual meetings that are easy to set up and the on-demand availability of mission-critical applications, but millennials want technology that will help them with their personal growth and bring about change in the world" (Gianniris, 2018).

One of the main reasons why millennials have such an impact in shaping the new workforce framework, is because they are shaping remote working or even the process before taking the job. More than any other generation in the past, they want to have the option of working remotely. From

one survey to another, millennials confirm how important is the work-life combination – not balance – and the only way to accomplish that is remote access. “The oldest Millennials are [...] starting and raising families and understanding some of the very real sacrifices that have to be made when their workplaces aren’t flexible”. But unlike the aforementioned, new millennials understand flexible working as a given and without a need of claiming, natural job description perks (Sutton, 2016). “There is a huge difference between the percentage of Millennials who want to work remotely all the time versus all other forms of flexible work. It’s clear that remote work is the preferred work-flex choice of this generation” (Sutton, 2016). The diversity of choices and views are huge in comparison to the previous generations. Three-quarters of Millennials are changing jobs within 5 years period. Global organization, SMBs and start-ups which “encourage a work/life balance, provide flexibility that allows Millennials to work where they’re most productive, [and] give them more control over their careers (Eltringham, 2016).

The biggest challenge, however, in this new area of investment is the limited budget and the excessive amounts of money needed to address an integrated set of priorities. The effort of investment is usually combined with the need for updating in tools to engage employees on an ongoing basis. Providing an engaging experience will help companies succeed in training and retaining skilled employees. A strong employee experience also drives a strong customer experience. As organizations shift to a networked, team-based structure, the employee experience becomes more important and more complex. Employee engagement, culture, rewards, learning and career development constitute a separate discipline which HR is dealing with. There is usually a senior HR leader, a set of tools, diagnostics, and solutions to drive and measure the desired change. Employees, from the other side, look at everything that happens at work as an integrated experience that impacts daily life in and outside the workplace, including overall physical, emotional, professional, and financial well-being. Candidates assess future employers from the very start of the talent acquisition experience and make quick judgments about what working life will look like for them in the organization, based on how they interact with the enterprise during the recruiting cycle. This integrated view leads to employees demanding a holistic, end-to-end—recruitment to-retirement—experience from their employers.

Figure 10 – Factors contribute to employee

Simply Irresistible Organization™ model				
				
Meaningful work	Supportive management	Positive work environment	Growth opportunity	Trust in leadership
Autonomy	Clear and transparent goals	Flexible work environment	Training and support on the job	Mission and purpose
Select to fit	Coaching	Humanistic workplace	Facilitated talent mobility	Continuous investment in people
Small, empowered teams	Investment in development of managers	Culture of recognition	Self-directed, dynamic learning	Transparency and honesty
Time for slack	Agile performance management	Fair, inclusive, diverse work environment	High-impact learning culture	Inspiration
Cross-organization collaboration and communication				

Source: Deloitte University Press

Developing an integrated employee experience across multiple dimensions will require HR and business leaders to combine insights in all these areas and leverage the experience of marketing, product development, and sales executives who are working along similar lines to design integrated customer experiences. Creating a holistic approach to the employee experience more advanced tools and programs to capture employees’ feedback are required.

In a world where employees can manage much of their lives on a handful of smartphone apps, they expect every element of their employee experience to be accessible and easy to use on their mobile devices. Digital and mobile tools have been emerged to help HR design and deliver a great end-to-end employee experience. New tools and apps are moving well beyond traditional email to improve productivity, engagement and employee’s wellbeing by bringing together competitions, fitness, groups, wearables integration, and micro-learning from vendors. Those digital tools and apps will achieve organization to maintain access, touchdown and complex scheduling and taking creativity and collaboration to new heights. Research shows, for example, that recognition to employees’ hard work increase employee engagement and retention. This requires apparently the existence of the right tools to measure performance effectively (Pavlou, 2017).

Making a step further, some companies have embraced BYOD policy (Bring your Own Device) that allows employees to enjoy flexibility and best-in-class productivity, thanks to the use of their own device with all the applications and clouds which better fit employee lifestyles and identities. Employees now can work from home using their internet connection which significantly reduces

environmental costs. In the European Union, indicatively, more than half of employees in 28 countries work now from their home.

Someone could tell the future is already here or if it is not here, is right away the corner. Millennials not only entered the workforce and surpassed Generation X but also negotiate management-level roles, made their voices heard and shifted how reapproach works (Sutton, 2016). Embracing the new idea of working hours, employers and business partners changed the dominance of strict productivity and working framework contexts. "It's clear that the concept that employees don't have to be at their desks to be productive" is becoming more popular (Gianniris, 2018). Large and well-known companies, trying now to catch the future vehicle that most of the start-ups already adopt, as they are more flexible, full aligned to the new technological needs and most importantly they don't have outdated procedures may create bureaucracy barriers. Companies like Dell, Deloitte, Vodafone, General Electric "have all created formalized remote work programs, to the benefit of their employees and the bottom line. Small and mid-sized companies are also following suit, embracing the idea that remote work can support overarching business goals and create a better work environment for employees" (Sutton, 2016).

When it comes to any employer brand strategy, corporate attentions are overlooked, and the effort is focused on activities and strategies influencing employees' life. The Employer Brand and the employee experience are not related to Marketing or advertising but it's all about being a good employer (Pavlou, 2017). Employer brand suddenly made one of the first priorities in executives' agenda. The latter are trying to create a highly attractive corporate profile which will attract new candidate's attention and at the same time will increase existing employee's retention rate.

Performance Management & Data Sourcing

Following current digital trends and developments in business, leading companies create continuous, highly agile processes among employees, leaders and teams, shifting from administrative and operation function to more strategic technology driven delivery model. This appears to be more complex as it concerns the introduction of new software tools that integrate Performance Management (PM) into daily work and use the greater quantity and richer quality of data now available. One of the main things changed is the way businesses identify and measure employee performance. With agile methodology conquering more area, new goal practices and models of

evaluations, check-ins and continuous feedback are being deployed on a wide scale, while becoming more and more common. The implementation of significant management reforms is necessary not only for the adoption on behalf of businesses of a more safe and contemporary way to evaluate employees but also to cover new positions and roles by new leaders who need to be retrained.

The impact of these new performance practices is high in business environment: The 79% of business executives rate performant management issues as a high priority, while 90% of companies have been in the process of redesigning to see improvement in engagement. Finally, 83% claim that they remark a rise in the quality of conversations between employees and managers (Rock et al., 2015). Performance management is aligned to both business strategy and the ongoing transformation of work, driving thus to reevaluation of goal-setting, incentives and rewards. The traditional end-of-year way of working is not effective any more. As companies today work as a series of networks, career mobility, alignment in goals, regular feedback and coach in real-time enable managers to touch base with employees on a continuous basis using new tools. New performance management practices facilitate regular communication and training opportunities and touchpoints related to capabilities and skills that will help employees focus and accelerate their careers in an always learning environment (Schwartz, 2017).

Data Sourcing may be a good way to give answers to people performances and business outcomes. With team-centricity growing within company, Performance Management is also beginning to shift business focus from employee's individual achievements to evaluating more team contribution and its impact on driving overall the goals. High performance organisations have bought sophisticated software to test and understand team dynamics, evaluate group goal systems and gauge how effectively employees contribute to their teams (Executive conversations with the authors). Team dynamics are tightly woven with the way employees contribute inside their team and their relationship with other teams (Executive Conversations, 2017).

According to the above elements, I can safely conclude that performance management is trying to boost individual performance with the goal of improving team's performance and efficiency; and vice versa, when the team wins, it also pulls up individuals and company in general. The current metrics in team level, differentiated from the classic ones, are trust, inclusion, diversity and clarity of roles. The old system of cascading goals from the CEO all the way down to the individual contributor is not part of the new design. One sign of positive change is the rise of employee driven qualitative and quantitative communication rather than one-way feedback. Some companies of course don't want to entirely abandon their previous concept, as the new model requires demanding investments, richer data and input from different sources. Regulatory and cultural factors may appear creating

more barriers to digital transformation and performance management, too. Now, after removing ratings, adopting ongoing touchpoints, and implementing procedures to deliver immediate horizontal and vertical feedback, organisations have completely reinvented processes to help employees set real-time priorities based on customer input, which ultimately increases speed and collaboration. Better Data tools and measurement are coming through and companies are seeking ways for applying data to performance measurement. This kind of information brings more clarity and insights, having as a result a continuous data improvement (Semper, 2016). The increase of these new sources of performance related to data quality and quantity gave gainful advantage to organisations. High performers are easier identified, making thus appropriate payments and rewards more plausible. However, challenges are in the table as well. While lots of firms drafting or attempting to create a performance management system across all organisation, they understand very soon that this is challenging in practice. The main characteristics of performance management tools are briefly the following:

1) **Goal Making** has become more transparent, mobile, and digital: Many new vendors now offer mobile goal-setting and performance applications that let teammates set, share, and collaborate on goals online.

2) **Easy progress tracking**: Tools using the objectives and key results model, allow employees to keep track with and update goals easily and see how others are making progress.

3) **Continuous Feedback**: Tools help employees deliver and/or request feedback, often integrated with email systems and other productivity tools, enable continuous improvement loops.

4) **Instant Information**: Periodic team surveys contribute so that managers evaluate team engagement and effectiveness. Regular engagement, or “pulse” surveys of employees offer insights about when and why certain teams are underperforming or might be unhappy or frustrated.

5) **Deploying data/analytics**: Big data tools look at performance online and send suggestions to managers based on artificial intelligence to encourage coaching.

6) **Career Development**: Recommendation can include new jobs and careers based on an individual’s internal experiences with job mobility and his prior success in the company.

7) **Easy Integration**: By integrating Performance Management tools with means (like Slack, Outlook, Gmail, and other productivity tools) people spend most of their time incorporated PM into everyday work.

Training and change management are the most important elements for continuous improvement and the success in this endeavour (Rock and Grant, 2016). Core principles of check-ins, agile goal setting, and frequent feedback are becoming common around the world. But lots companies continue to use formal reviews, numeric ratings, and development plans. Organisational culture and

habits slowly change, so that companies adopt new practices at a speed that works for the business. But financial performance constitutes a factor which helps business to shift faster to digital acceleration in performance management, strengthened engagement and identify the design elements, tools, and processes that are most effective. In any case, business strategy is directly aligned with performance management revolution.

People Analytics

Performance Management development is causing the rise of data sources, leading to a fusion of external and internal data gathering in predicting employee behaviour (Deloitte, 2017). People Analytics fully integrated and always in the background, has an interdisciplinary character more than ever before, being able to make personalized recommendations. Organisations are investing in HR systems and programs using data for all aspects of workforce planning, operational improvement and talent management. At the very beginning, people analytics was a technical group who analysed engagement and retention. Now, this technical group constitutes a fully digitally powered enterprise analytics solution that makes more feasible real time analytics when in need in the business process. By making actionable insights into the new internal power, according to Deloitte Survey, 71% of companies see people analytics as a high priority in their organizations (Consultancy.uk).

Analytics is being used more and more often for a wide range of business challenges, from recruitment and retention to organisational network analysis, interaction analytics, performance measurement, compensation and workforce planning. However, readiness remains the top issue businesses are dealing with, as most of them do not seem to have usable data the time they want. Furthermore, Deloitte Survey reveals that with 9% of business believe they have a good understanding of which talent dimensions drive organizations' performance, while talent scorecards for line managers have broadly deployed HR. The shift in the use of digital tools and measures helps leaders to focus on every part of business operation and HR to a focus on the business itself. Dashboards, for instance, help managers to understand attrition, hiring metrics, employee cost and outcomes, employee traffic patterns and engagement by geography and business unit. Executives have nowadays access to an endless combination of metrics to help them go on a far deeper level of analysis, what drives results (Bersin, 2016). Data-driven tools could also predict patterns of fraud, depict trust networks, and show real-time correlations between coaching and engagement (Gloor, 2015).

Digital tools have finally transformed HR from a technical specialist group to a serious business function that allows business executives to set up the entire workforce management process and operations and meet the needs of many stakeholders. Analysis from interview data to the general behaviour of high-performing teams, HR understands how work is done, helping teams become smarter and reduce unconscious bias. The use of external data for people analytics has also grown significantly, with companies now actively using social network and external data to understand attrition, retention, and other performance metrics. And well-performed companies now have governance teams that make sure all people-related data are coordinated, while the company reorganizes, acquires others, and implements new systems. Businesses and organizations that are adopting analytics are bringing it into the core of their business and using it to inform business strategy. Success in analytics will require a prolonged time commitment and continued investment. Due to the sensitive nature of some people analytics programs, though, organizations will likely need to become far more considerate about data confidentiality, local regulation regarding the use of employee data, and the risk of public disclosure of private information on the organization and its employees.

Performance management and personal development performance has been significantly transforming how organizations approach and deploy new personal feedback and coaching models to their employees, creating thus more expectation for productivity and changing in corporate culture. Business partners, executives and managers have more knowledge now about who needs help and how to empower people. A close monitoring of teams helps not only to enrich people's skills but also to grow new leaders who can lead the company with the same culture. Continuous – feedback-based performance management gradually takes up more and more hours on executes agendas giving them immediate input and reinforce boosting transparency. The strategic change in how HR and managers dealing with employees' performance could depict goal resetting, changing target or project, reward or even the need to embrace more speed change in comparison to recruiting new employees. Through interviewing and analysing all the available info, one can easier figure out how a high-performing team works. Sometimes the process is not only useful for internal relationships but also for the better understanding how strategy, connectedness, customers, and talent pools are all changing as part of the digital transformation. Talent mobility, for instance, based precisely on employee's possibility to apply on new roles, more from function to function and make evident their desire for new opportunities. Such processes make organization more agile and require executives to be open to understand the new, more agile career model.

Leadership

The transition to the digital world has many challenges in the executives' career path. One of these is the need for further and different leadership development. Business leaders came to need different skills and expertise compared to the past generations. Organizations appear to be unable to develop quickly, and respectively to digital acceleration pace, digital leaders, although they attempt to promote young leaders, and build new leadership models.

The shift in business is surprisingly radical. Strong, digital ready and more agile leaders, with great ability to face new challenges have become essential. Many business executives believe that human capital is a great cost and technology will drive greater value; however, the truth is somewhere in the middle (Korn Ferry, 2016). High Performing Organisation have been walked away from the hero leader and are focusing on team effort and on leaders that work together, complement each other, and function as a team (Executive conversations with Deloitte University Press Authors). To gain this shift, HR and business require to help leaders to obtain new capabilities and skills by redesigning their processes and training to be more team centric and dynamic. The new type of leader has the knowledge of how to build and lead teams of contractors, contingent workforce and crowd talent; keep people engaged and drive a culture of innovation, learning, and continuous improvement involves taking risks. One of the most important leadership drivers is also risk-taking. Taking the words of Mark Zuckerberg, CEO of Facebook, "The biggest risk is not taking any risk. In a world that is changing quickly, the only strategy that is guaranteed to fail is not taking risks" (BrainyQuote, 2017).

Millennials are right now the top priority for most organisations. Moving them to high-ranking positions is an initiative combined with intensive mentoring, clear career paths, job design and development programs, in to order to create the new model of leader that the new era commands (Derler, 2016). Sometimes the leadership pipeline may still be heavy to be followed and millennials struggle to meet all the demands. Add to this, they declare that they get too little to develop in their roles, when their organization does not fully take advantage of their skills (Deloitte, 2016). To address new business needs and satisfy the aspiration for lifelong development, many formal leadership programs are being supplemented with developmental assignments, external experiences, stretch projects, and exposure to internal and external leaders. Therefore, running out of time, organisations develop new leadership programs focused especially on digital management, in three areas: 1) Cognitive transformation (related to how leaders must think differently) 2) Behavioural transformation (related to how leaders must act differently) 3) Emotional Transformation (related to how leaders must react differently) (Kane, 2015)

Figure 11 – Leadership capabilities in a digital world

Leaders need to think, act, and react differently to make their organizations succeed in a digital world		
Cognitive transformation (THINK differently)	Behavioral transformation (ACT differently)	Emotional transformation (REACT differently)
Conceptualizing possibilities in a virtual world	Adapting to constantly shifting power and influence	Tolerating an environment of risk and ambiguity
Handling ever-increasing cognitive complexity	Collaborating with ease across many different teams	Showing resilience in the face of constant change
Thinking divergently about new ways of doing things	Valuing the contribution of new work partners and different interest groups	Being brave in challenging how things are being done
Making decisions quickly without all of the information	Investing huge amounts of energy into getting things right; try, fail, try again	Having the confidence to take the lead in driving change

Source: Deloitte University Press

Digital transformation is going fast, and leaders need to be ready to imagine the next steps, educate others and repurpose methods and expertise. In Deloitte University Press they are referred three different types of digital leaders with each leader having the ability to combine more than one types of them:

- 1) **Digital investors:** Senior executives who embrace VC mind-set, uncover opportunities, invest in talent and ideas, forge partnerships, and build an ecosystem for innovation to thrive.
- 2) **Digital pioneers:** Business and function leaders who can reimagine the future, shape new and different business models, and lead a winning digital strategy.
- 3) **Digital transformers:** Leaders who can manage people through radical change and transform the business.

Even senior leaders that are not in the process of this digital shift of their organisation are supposed to be supported by HR leaders through training. To do that, digital investors need to balance current business models with the newest and ensure consistency. HR, thus, searches for guaranteeing that digital leaders will carry on “business as usual” while moving the digital agenda forward by including elements of innovation, growth, inclusion, teamwork and collaboration. In case that organisations move beyond traditional leadership training, HR strategy focuses on culture, empowerment, risk-taking, knowledge sharing, exposure, matrix management, and building talent as guides.

The role of leaders will continue to change, becoming even more digital-focused and team centric. 80% of business executives declare that leadership is an important issue, so they will keep

transform tools and processes. When companies need to build flexibility, young leaders are more possible to follow and adapt to digital models. Having specific boundaries set by leaders, organisations will never manage to make their business thrive. And the only one who could contribute to training executives and drive organisation to digital transformation is HR through organisational practices including culture and organisational design.

Diversity & Inclusion

The enhanced interactions between different network of teams inside organizations are a core element of contemporary business environment, with the elements of team empowerment, open dialogue and inclusive working styles to dominate. In this strategy, diversity and inclusion pillar has been emerged as a tightly woven aspect of talent life cycle, with an impact to engagement, brand, and drive performance (69% of executives rate diversity and inclusion an important issue).

Business society seems to be increasingly aware of this issue, paying more attention to gender equality and racial diversity in the technology industry. New generations, on the other side, see inclusion as a mandatory part of corporate culture either from customer's perspective or employee's role (Deloitte Touche Tohmatsu Limited, 2014). With the awareness arisen, Diversity & Inclusion has been also a fundamental factor influencing talent acquisition and company's employment brand (Smith and Turner, 2016). This can be reasoned by the following fact: most newcomers, inclusions are not just a significant pillar that assembling teams' diverse teams but works as a safe environment where member of teams and employees respect each other. In their attempt to reach Millennials and Generation X candidates, organisations attempt to align their approaches with new generation expectation, seeing that otherwise they are about to lose talents. As employee demands shift, diversity & inclusion receives greater attention globally and private sector's responsibilities continue to grow. Especially for organisation have embraced agile methods, operating in networks is something more than a necessity. In these cases, diversity and inclusion can reinforce organisational performance, supporting also engagement, creativity and innovation (Bourke, 2016). While an overwhelming majority of organizations (71% of organisation according to Deloitte Survey) aspire to have an "inclusive" culture in the future, their actual maturity levels are very low. Businesses appear to be far to slow on solving diversity challenges and making institutional changes. Some may be in denial about the reality in their own business while others will restrict to training sessions which have

been proved not enough. In contrast, Reforms with focus on transparency, data-driven solutions, and immersing executives in the world of bias to give them a visceral understanding of how bias impacts decision making, talent decisions, and business outcomes are some measures need to be taken (Deloitte University Press, 2017).

Diversity & Inclusion became important after the steady change on global political environment. Nationalism, migration flows, fear of terrorism, gender equality and sexual orientation issues create a great concern on employees who want their work environment to offer perspective to these challenges. The pillar now is an important component at work that touches a wide range of things like human rights, employee engagement, fairness and even social justice. Equality topic for example has received mounting public attention, with high performing companies to be publicly highlighting it while emphasis has been given also to transparency on executives' pay. Unconscious bias programs are popular with lots of firms now define themselves as global entities, making religious, gender, generational, and other types of diversity a business reality. There would be no other reason for not establishing such practices as according to researches companies with inclusive talent practices in hiring, promotion, development, leadership, and team management generate up to 30% higher revenue per employee and greater profitability than their competitors.

In general, Deloitte's research showed that 78% of business respondents believe diversity & inclusion is a competitive advantage and should be embedded into organisation culture while 68% measure and monitor diversity and inclusion in recruiting. Eliminating measurable bias from talent processes are already fact, including hiring, promotion, performance management, leadership development, succession, and compensation. Companies, for example, look at patterns of job offers and compare managers against their peers for signs of gender, racial, or age discrimination. Removing such biases systems and processes is a huge step helps organization gain more power to move toward true inclusiveness (Lieberman, 2015).

Some of the core traits are identified on an inclusive leader is commitment, courage, cognizance of bias, curiosity, cultural intelligence, and collaboration (Dillon and Bourke, 2016). This of course prerequisites that top leadership understands the importance of diversity, are accountable and concess to all relevant inclusion policies. Measurement and data are necessary also to identify problems, measure progress and identify patterns of gender and racial bias, disparities in compensation and rewards, and bias in hiring and promotion. Despite these efforts, we see a reality gap. Research shows that one of the biggest sources of bias at companies is a lack of diversity of thought. That's why Diversity and inclusion should be concerned as part and responsibility of the corporate infrastructure, just like compliance, IT, and security;

This model is expected to accelerate. A new focus on accountability, data, transparency, and “diversity through process” is driving efforts around unconscious bias training and education throughout the business community. Leaders and managers can benefit by listening to people who think differently, because they often bring some of the team’s most innovative ideas. Taking also the fact that today’s organisation become global, geographic diversity is increasingly important. Diversity and inclusion will likely vary widely from region to region, and employees’ interests and concerns in different regions will likely differ as well.

Welcome to the future workforce

Technology, nowadays, is omnipresent in every single part of peoples’ lives. Although technology required niche skills creating a perception of specialized positions during last decades, today the market is shaping the future to a completely different framework. Given the elements cited in this thesis, I can easily conclude that the nature of work is changing fast, driven mostly by the acceleration, deployment and adoption of continuous connectivity and cognitive technology. With robotics, cognitive tools and AI systems interfering in workforce, jobs are being reinventing again and moving towards to - what they call - “**augmented workforce**” (Knowles-Cutler and Lewis, 2017). The most known core goals of today’s workforce are the adaptability, the efficiency and the speed that make global executives to implement changes in business structure and include these in future growth plans (Deloitte, 2017).

Various stages towards digital reform have been identified in the economy this last decade, starting with **open talent economy** to the **collaboration with machines** and finally to the **gig economy** (Schwartz et al., 2013; Schatsky and Schwartz, 2015). The last one is the most critical, as automation, cognitive computing, and crowds are paradigm-shifting forces that are reshaping the way workforce works. The new economy is full of new unknown fields and require the change both of business and the people that entering them. Even if the current prevailing view is that machines and cognitive tools are going to replace us, it seems that human part is becoming more essential, as tasks are going automated (Culter and Lewis, 2018). For being cognitive tools always competitive enough, people should consciously invest on training and on the continuous use of new tools. Soft skills, like effective

communication, empathy, problem solving, personal service and decision making, have become more valuable than ever before and contribute to help productivity thrive, while workers focus more on human aspects. In 2018, according to Global Human Capital Trends survey, 41% of executives globally reported have fully implemented or have made significant progress in adopting cognitive and AI technologies. At the same time, 34% of respondents are in the process of pilot programs. With the belief that there will be no will to reduce number of existing positions, more than 77% companies express their interest in either retraining people to use technology or recreating jobs to better take advantage of human skills. Despite their intention for creatively using these skills, the shift of full-time employees to an augmented workforce stretches still in uncharted waters. While 66% of companies believe that their use of off-balance sheet talent will grow significantly in the next years, 49% say they are not able to manage contingent labour well, meaning that lots of elements of the future work are still in an emerging stage of understanding (Deloitte, 2017).

Digital Skills have become an essential part of a comprehensive education framework equally important as mathematics or learning a language. Without a specific digital learning program, it could be said that a part of population is fully illiterate, unable to reach any kind of job requirements, “exacerbating inequality and hindering socio-economic mobility” (Park, 2016). Except for Emotional Intelligence (EQ) and Intelligence Quotient (IQ) competences, Digital intelligence has been arrived and established in line with the current demands on the labour market by measuring individual’s facility and command of digital in three different levels: **Digital Citizenship** - the ability to use technology responsibly and safely, **Digital Creativity** - creating ideas and being part of the digital ecosystem - and **Digital entrepreneurship** - create new opportunities and trying to tackle global challenges. Digital Creativity in education right now seems to be in its bloom (Park, 2016). More and more educational institutions take advantage of projects that are closer to technology and labour market but they seem still unprepared. As Park says, “they attempt to provide children with some exposure to media literacy, coding, even robotics, all of which are seen as directly related to future employability and job creation”. Digital Citizenship, as a non-yet mature definition, was often overlooked by educators, and leaders. However, one can observe now that plenty of universities (Singularity University is one of the most well-known) and companies undertake the creation of new courses and initiatives that reflect the mission towards digital and gig economy. These elements are not only about tertiary education but are more like a person’s ability to live in a digital world, with the need for starting as early as possible to create digital citizenship (Park, 2016). Ultimately, national and educational leaders need to understand the importance of digital citizenship as well as the foundation of digital intelligence.

As digital management practices and agile organization design become central to business thinking, HR is undergoing a profound makeover that is related to its transformation from a support

function to a leading role that helps organisations towards digital transformation. This change is taking place in areas where organisations drive new management practices and a new culture of innovation; a new working environment that enables productivity and further engagement and finally the use of digital tools to deliver solutions. Digital HR moved from integrated talent management toward building the future organization. Firms are hiring young, digitally savvy employees, who are comfortable doing things themselves and sharing information in a transparent way, as long as they have an integrated digital experience at work. But still, rewriting the rules is not the easy part. The redesigning of HR should be done with a focus on teams by organisational network analysis, and driving a global focus on diversity, culture, learning, and careers (Deloitte, 2017). Many pilot HR programs allow business to experiment with new models and study employee needs across all segments: hourly workers, salaried employees, managers, executives. Digital HR teams are necessary to be near real-time, with the birth of new breed of HR products and solutions to help employees see patterns of performance or retention and prompting them to tackle with coaching, recognition, or community building (Stevens, 2016). With the use of such tools, business partners are eventually becoming more digitally empowered and able to spend more time for the business.

Transparency is becoming a standard in the world of talent and that's why it is important for HR to redefine its mission to help management and employees rapidly transform and adapt to the digital way of thinking from recruitment level to performance management. Organizing also HR into networks of expertise which serve digital transformation contribute to focus on the employee experience, analytics, culture, and the new world of learning. The propensity of an agile future and a digital HR is anyway already here and immensely creating new nuanced roles. Recruiters know better than anyone that new generations are more likely to accept a job offer, when it has been designed especially for each candidates' skills (Bhaduri, 2016). From a more traditional way of choosing employees and performance management, organisation is moving to individual contracts based on the variables of each candidate.

With the vision of workforce to expand, new jobs in the context of tasks and new roles of human skills are launched, both of which focus on the customer - employee experience and the Employment Value Proposition (EVP). Advances in tasks and jobs are following standardized rules and have as a result the emergence of a challenge for HR leaders and business in general. Designing, sourcing and managing the future of work are essentially human skills and organisations that do not clearly give opportunities for reskilling and new positions may see their brand suffer from social and political pressures.

The transition to augmented working reality requires a reconsideration of how the work gets done, the range of talent segments and technologies, reframing careers and ways of learning. Experimentations of new ways of working may be applied and new partnerships may be developed, especially between HR and business, where an alignment in business strategy is crucial. The core element of this transition should be the existence of a workforce transformation plan, which includes an actionable view of talent, training, communication, leadership, culture, and organisational impacts (Deloitte, 2017).

The future of workforce has already been founded and organisations must embrace this disruptive opportunity and invest in critical human skills. Driving factors will keep accelerating, helping first movers become experts at optimizing the use of systems and crowds to drive productivity, innovative products and services, and customer relationships, while abandoning slow adopters behind. Both socio-political authorities and business are responsible for guiding digital revolution, shaping the Fourth Industrial Revolution and directing it toward a future that reflects our common objectives and values (Schwab, 2016). Today, business executives and HR leaders are often trapped in traditional, linear thinking or they are too absorbed by transient crises to draft strategically about the forces of disruption and innovation shaping future. Maybe this digital revolution brings a lot of threats but it can also lift humanity into a new collective and moral consciousness, based on a shared sense of destiny (Schwab, 2016).

HR has a great opportunity for leading the transformation to a digital enterprise. In the next several years, HR teams that embrace necessary organisational restructures and adopt digital elements to take up the dual challenge will be game changers. HR leaders also who “lean into” new technologies and ways of working, and invest in agility through constant reinvention, will be strongly positioned to have an impact on business results and employee experience.

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Case Study: Vodafone Group

Vodafone is one of the largest telecommunications and technology organisations globally, operating as a catalyst in the national markets (Vodafone Greece Official Website, 2018). The multinational IT and telecommunication provider, by operating services in more than 150 countries, mainly by its own or through its partners, is ranking globally second in the number of mobile customers (Vodafone Annual Report, 2018). Except for core telecom services, technology is now also a significant part of its business activity. Through its own subsidiaries, like Vodafone Global Enterprise Limited and Vodafone Innovus, Vodafone Group manage to offer integrated communication solutions in IoT, Money Transfers, mHealth services, cloud computing, unified communications and collaboration (Vodafone Global Enterprise profile – LinkedIn, 2012). The unified connectivity services drove the company at the top, being the first global IoT provider to pass 50 million milestone (Vodafone Group Official Website, 2017).

Picture 12 - Vodafone Global Enterprise Operations

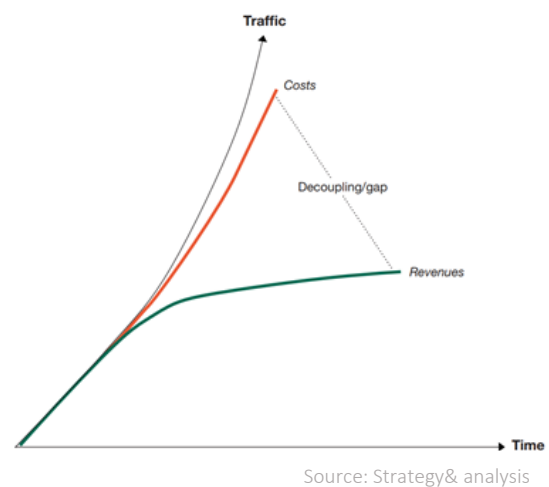


Vodafone was selected for this dissertation as an amazing example of a company experiencing digital transformation in the context of a more general activity of telecom sector towards digital services which is offered to the consumer. From the second generation (2G) mobile networks back to 90s till today, a rapid technological change has been taken place in telecoms (AT Kearney, 2016). Technological advancements brought evolution into industry. However, today they seem to be significantly behind in comparison to today's over-the-top (OTT) alternative providers and resellers that create a competitive market with suffocating pressure on the main players. Unlike these established companies which are being favored by economy of scale due to digitalisation, telecom organisations still carry a significant proportion of cost which need to be automated. The demands of the new age for more personalised solution are forcing telecom providers to improve the efficiency of all commercial and technological decisions with the speed of execution in providing further differentiated services. Finally, another reason why Vodafone is chosen as a case study is because its identity helps to fill up all risks of a big organisation which needs to make up the transition to the new digital age (EY, 2017).

The Risks of Telecom Industry and Vodafone

Telecommunications are experiencing a period of transition from a stable and growing market to a period of shrinking revenues, profitability and consolidated telecom services. Most of industry's brands are now interfere to new markets, search for new fields of activity and struggle to settle a new digital strategy. According to Ernst & Young (EY) report for digital transformation for 2020, companies cite disruptive competition issues (74% of respondents) and lack of organisational agility (47%) as the top strategic challenges facing telecom businesses (EY, 2017). The outmoded IT systems, the strict organisational structures and the pre-digital corporate culture of telecom providers, allowed over-the-top players (like Skype, WhatsApp, Netflix etc) to steal a march on them and gain the upper hand by offering better and wider-ranging services and more compelling customer experiences (PwC, 2016). In contrast with OTT which is reducing expenses dramatically and it is investing money in new innovative services, telecom operators are dealing with the costs involved in maintaining their networks. For competing these new players, telecom providers forced to engage a fully consolidate plan of their services to generate scale, combine infrastructures and networks and start selling more fixed-mobile convergence in order to improve nowadays' customer demands. The battle is not easy and many of them are now in the process of rethinking the way they innovate, by becoming more agile and being more open to collaboration with third parties (PwC, 2016).

13 - Operators must reverse the rapidly growing gap between costs and revenues



IoT, Smart City and Home, Security Services and connected cars seem to improve Telcos incremental revenue growth, making them the leading revenue streams that help building long-term operational excellence. E&Y Survey responders also believe that process automation (71%) and analytics (51%) will lead the way, focusing on customer experience, cost reduction, driving monetization and growth (EY, 2017). This means that they should look through operators beyond the traditional domain of analytics in developing customer insight and working out how to weave network analytics into digital service propositions. However, the digital transformation and the redesigning of customer journeys from marketing to customer care, prerequisites an organisation agility, and a new

customer service strategy. Therefore, one core priority for telcos is bringing this agility to tackle the world of legacy IT head-on.

Within this board vision and a new range of agility drivers, incremental steps require a turnaround of networks into platforms, which offer services like localization, security, and authentication, clear interfaces and application programming on which can build their own services. This change will bring a more near-term focus on the operational and strategic benefits of cloud IT, continual reassessment and refinement. The EY survey's findings suggest that telcos ought to be much bolder in their cloud strategies with a focus on security implications and changing regulatory scenarios. Looking forward, the transition to cloud will accelerate centralization of IT management, enabling more flexibility in staffing and recruitment while paving the way for greater focus on product and service innovation (EY, 2018). But more innovative business models depend on implementing selective growth agenda. This agenda should focus on carefully chosen vertical markets and/or segments, supported by new value chain relationships that can help operators respond quickly to emerging opportunities and risks. Talented people play a significant role here and their importance require as much focus as systems and processes. As telecom providers reach their digital transformation shift, the outlook for the employees' agenda includes receptive and tolerant mind-set, a new era of organisational design, a balance between up-skilling and new roles and finally an alignment optimization of people and process.

For Vodafone Group, the risk identification and mitigation processes have been created to be operationally and strategically responsive to the ever-changing digital environment. Some of the main risks have been identified these last years are in alignment with the industries' challenges like the competition, the regulation, the converged, the emerging OTT services and IT failures (Vodafone Annual Report, 2018). Firstly, the intensifying competition is related to the battle of Vodafone to secure a market share of the potential customer base across the markets, which may lead to lower future revenues and profitability. Sometimes this goal means an overwhelming price war which has as parallel goals the reduce of customer churn and the increase of revenue per customer. Secondly, **regulation**, especially in Asia, E.U and U.S, is constantly changing and is moving more to the creation of an extensively open market, where alternative new players are providing their services. In such cases, Vodafone not only needs to comply with the extensive range of regulatory requirements, loosing usually revenues from interconnection contracts, but also to respond to other players (Vodafone Annual Report, 2018). Sometimes, though, intervention maybe need to be taken at a national and international level in respect of legislative, fiscal and regulatory proposals. **Network or IT system failure**, consisting the third main challenge for Vodafone, undermines risks in new services implementation and interruption, specific back-up and resilience requirements that are built into its

network. Continuing also to invest and maintain old systems, it could cause a delay to the way towards new innovative services and digital transformation. **Converged** and **over-the-top “OTT” services**, finally, as today’s new innovative services are being launched by many competitors and take lot of digital native customer base. Therefore, Vodafone plans of investment include the intensively invest to those services (to some markets) so as to avoid erode revenues (Vodafone Annual Report, 2018).

The above challenges constitute mostly barriers from the business’ point of view. Neil Blagden, director of commercial and customer operations of Vodafone UK explains in the contrary customer insights which has always been influenced by the negativity for organisation’s obsolete services. Vodafone brand has always been identified for its customer service and personal assistance. Now these values have been widely faltering due to aggressive digitalisation of the market and all customer demands for more automation and customisation (Carey, 2017).

Effective digital and technological transformation are the biggest risk right now for Vodafone. The strict timeline agenda that needs to be delivered includes a wide range of restructures, drive of efficiencies and an exploration of new growth areas. Shifting towards digital will cause significant structural changes in the 103,564 employees organisation that could be a risk for its brand as an employer while they will increase the need for a more talented workforce. The organisation continues to address the risk of failing to deliver a differentiated customer experience and has been expanded to include the risk of an IT transformation failure. Data management - which recently was being reinforced by the emergence of GDPR - recognised the strategic value of effectively managing collecting data assets in nowadays digital economy especially for a company like Vodafone which uses them to meet customer’s expectations (Carey, 2018). However, the process and data are areas to numerous compliances, security, privacy, data quality and regulatory requirements that make very expensive business operations. A failure to meet data governance is possible and it could lead to data mismanagement; The distinct outcome of not using properly data in a digital world is related to not adequately responding to customer expectation, causing a negative effect both on NPS (Net Promoter Score - the metric is based on one simple question that investigates how likely it is that a customer would recommend a brand to a friend) and on customer lifetime value. According to Mr Blagden, Vodafone aims to use data honestly, ethically, with integrity, and always consistent with applicable laws and company’s values, to improve the efficiency of operations and to continually develop data centric business models (Blagden, 2017). For most executives around Vodafone OpCos the strategic plan is clear, and it could accelerate the evolution of organisation towards a more digital future to improve CX, increase speed to market and operate in an agile and efficient manner. However, the failure in this endeavour could lead to missed commercial opportunities, increased cost of working and recruitment, testing and customer service failures.

The digital shift of Vodafone

At his last year as CEO of Vodafone Group, Vittorio Colao announced the start of a strategic program called “Digital Vodafone” which would create all necessary conditions for an overall shift in the organisational mind-set, the operations and the structure. The initiative was included in all next year plans across the group with the aim of starting delivering a leading digital customer experience, by leveraging the latest data analytics techniques while it would be underpinned by new agile ways of working (Vodafone Annual Report, 2018). The announcement of Vodafone’s C.E.O was not just the outcome of reconsidering the risks referred above but it was more a setting of a goal; Vodafone to be the leading digital company with modern systems, skills and talents to ensure a world-class offering and customer experience until 2021. Commercially the goal means the transformation of the current business model by delivering the most engaging digital experience and using the most advanced data analytics to improve commercial and technology investment and operation decisions. This ambition could contribute to further gains in NPS across markets but from the other side dilution in OpCos’ revenues. This is the reason the initiative is differently implemented differently in each opco. The goal in general could be characterised as counterbalancing as it includes incremental revenues and to further reduce net operating costs on an organic basis (Antonopoulos, 2018).

Right now, Digital Vodafone is already being implemented across the large operating headquarters of the organisation, where commercial and technology teams are being merging to achieve more efficient product and service development, at a lower cost than in the traditional “siloed” functional model. Prerequisites to this transformation are the critical digital and soft skills to eliminate reliance on external developers, to adopt more agile working processes, to strengthen internal digital marketing platforms and units and finally to achieve a better return on media investments. Along with Vittorio Colao, other executives knew that without innovation and digitalisation there could be no success for the future so this could be the source of differentiation and efficiency for Vodafone. But trying to find the scale of innovation is probably an expensive hobby in terms of investment. With existent services like telecoms and IoT Services, Vodafone is trying to explore if customers are convinced that it is enabling to be an organisation of innovation by communicating their experience as a technology company, providing new technologies and Internet of Things services.

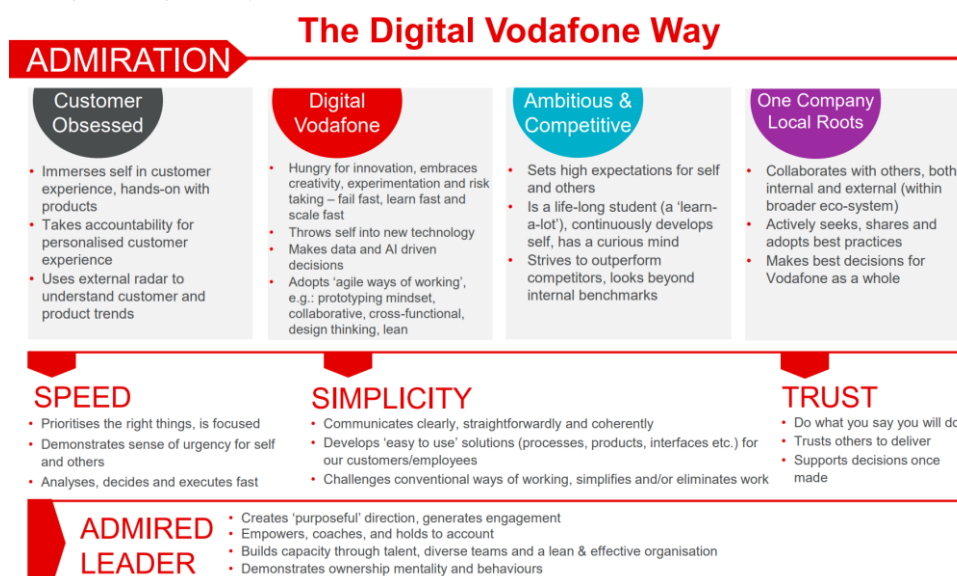
The transition of the telecom giant as a digital operator can be divided into two directions: the digital **customer experience** part through the enhancement of business operations and the increase in revenues and the cost efficiency part within organisational **structural changes**. The first

part includes investments in innovative digital technologies that will bring incremental revenues and will strengthen customer experience excellence. For that reason, Vodafone will continue blending the digital and physical assets to provide instant and easy interactions to deliver the most engaging digital experience to its customers (Athauda, 2016). Moreover, data analytics will improve commercial and other IT investment decisions, while Vodafone will optimize the efficiency of marketing spend, create more personalised offers to generate incremental revenues, enhance the average revenue per customer (ARPU) and reduce net operating costs.

Specifically, on digital switchover the company is going to use mainly chatbots and digital agents who will be riding on AI technologies to improve customer engagement results. Through the installation of new middleware on top of existing legacy IT systems, Vodafone will be also able to accelerate the deployment of new digital capabilities, de-coupling them from the longer and financially costly upgrade cycles for legacy billing and other systems. Real-time data analytics will also help Vodafone to better deploy network planning, as well as more precise ROI-based investment decisions, achieving also significant Capex and Opex efficiencies (telecomlead, 2017). The company finally expects that digital transformation will contribute to simplification and automation of network operations, IT, engineering, management back office functions and all other administrative activities, in both support and operational areas.

Vodafone identify digital transformation challenges as a battle against an excessive increase of customer complaints. Executive teams try to modernise the tech stack by investing in digital channels in a bid to turn things around and ratchet up company’s digital capabilities. Targeted to this

Picture 14 – The Digital Vodafone Way



goal, Vodafone started to introduce across all opcos new customer service digital tools, as an Artificial intelligent chatbot called Tobi, voice biometrics and Alexa by Amazon while it has been developing a digital Customer Value Management (CVM) and Digital Units to increase more engagement with customers. “The desired goal is Vodafone to engage customers via digital channels and consolidate contact centre estate significantly down globally” mentioned the Head of Digital, Iasonas Antonopoulos. “The shift has to do not only with financial strategic planning but also the holistic turnaround of the organisation to go from being “voice-centric” to focused on digital”. The huge investment on customer assistance centric policy didn’t allow Vodafone taking first - in comparison to other competitors - advantage on new digital tools and this led its position to be in the wilderness from a digital perspective (Blagden, 2017). Now the shift is so fast as the organisation tries not only to adopt innovative methods of competitors and other sectors but also to come up with new ones.

It all started with some small steps which include the launch of Live Chat functionality in My Vodafone App till the conquering of African money transactions market. New single management systems were implemented allowed employees to plug in via one set of integrations into multiple channels (Blagden Interview, 2017). Live Chat feature for example helped one the one hand employees to handle customer service calls but gave also customers the ability to be assigned to a preferred agent and handed off when they have specific issues. The decrease in number of employees working in customer services centres may be a fact, although the increase of hiring of more digital talent staff is also crucial (Carey, 2017). TOBi, as another success story of Vodafone trying to penetrate Digital age. TOBi is a branded instance of IBM Watson’s off the shelf virtual assistant (Tolon Z., 2017). In the early days TOBi was configured to answer popular support questions -- essentially automated FAQs -- but it has been expanded since to be able to answer account-specific queries. The challenge though came with the need of connecting with the right backend service from a questioned being asked by a customer. With contextual routing of calls, customers spend less time on hold and Vodafone achieved to collect and verify with new voice biometrics customer’s identity with a spoken password. Both Alexa, Amazon’s personal assistant and ToBi, IBM’s creation are the most apparent outcomes of the new collaborative culture of Vodafone so as to produce fast digital and qualitative services for customers (Tolon Z., 2017).

Turning Vodafone to digital channels finally allows customers to access help and information 24/7 as more and more customers would rather use live chat than voice. People in the meeting rooms are still on this journey as they have to be sure of all potential journeys. Although they are aware of the challenges, all indicators seem to be sure about their digital strategy which is accompanied with the close of more contact centres, the increase in talent hiring and the augmented investment on

technology as a result, but the early indicators are all positive (Carey, 2017). Moreover, the robust and reliable commercial strategy of widespread connectivity and the Gigabit Society that sells to its customers could not be different and deviated from that one is adapting in its own structure (Vodafone Group Official Website, 2018). One of the core business as usual for Vodafone is to understand how businesses and customers will live, work and play in this new area so as to operate in the Gigabit Society.

A Segmented Customer Base

The digitalisation of the market and the wider distribution of big data enabled the market to get customer insights faster and built a better customer experience. In this scope, Vodafone started using a mix of segmentation strategies in order to segment its propositions across all services. The segmentation concerns not only the core offerings in mobile network, enterprise and broadband services but also a wider customer segregation based on the different customers' needs and other geographical, demographical and psychographic elements (Bhasin, 2018); these demand that the use also of digital devices by customer to retrieve all relative data from customers profile.

Vodafone is targeting different groups of society like High Value Customers who have usually a contract, Students who are most relevant with the prepay services, Families and other groups like immigrants and tourists. The differentiated targeting strategy is more relevant to each group's needs and experiences while at the same time identify and take advantage of important customers' moments-of-truth. An example of the high value segment erase that send a push notification messages in the Vodafone app which refer to an advantageous personalized offer in a ski resort when the customer is nearby or when the CVM team knows that the customer likes skiing. The organisation believes that through dedicated campaigns and by using value-based positioning strategies, they will have a successful implementation app in creating top of mind awareness amongst other telecommunication providers around the world (Bhasin, 2018).

Segmentation arrival also shows how Vodafone Group is betting on segmentation to revitalise brand. To achieve that there won't be a mass target traditional advert. Dedicated and personalised offers are used for specific target groups in specific times and places. Segmentation is currently the

blueprint for organisation's marketing activities and the reason for the creation of other sub-brands which try to identify a relevant unmet need or a growth opportunity. A great example of a successful segmentation in a market - includes also an approach of new generations' values – can be found in Greece, where Vodafone created a CU subsegment for prepay (youth) segment, targeting exclusively students 18-24 years old who in parallel are high-end smartphone users. This "youth" segment, have students inside the team, keep up always with latest customer insights and build offers that meet customer needs before going to market through the best channels. Recently, a campaign of the youth segment with the tag line "Open [other people-things] and Open [your mind too]" revolves through exclusively youths' ideas of mind, heart, worries and dreams. "It is the central placement of [CU] brand on a journey that leads the campaign's protagonist to "open", but also to see the world "open "around him/her; an idea being understood by the peculiarities of this demographic groups it represents, explains Moumouris Constantinos, Head of Vodafone's Mass, Youth, Ethnic Segment, Loyalty & IOT (Polymeridou, 2018). Even though such campaign could be really successful to the specific targeted group, the challenge of not understanding by the other segments is really possible. Digital campaign came to this problem to make more smart dedicated messages and campaigns that may be considered overwhelming to other segments customers. "Honesty and effective communication are the key factors to build brand in the young public", Mr Moumouris comments and adds "it's important to understand the reality of subsegments, to live alongside with our customers and give them everything we can so they develop, discover, and live unique moments. An important element is therefore the team that works in each sub-brand and segment (Polymeridou, 2018). HR must identify and act accordingly to customer insights and create teams could respond accordingly.

In terms of retail strategy, it depends heavily on the consistent branded customer experience across all physical and digital touchpoints. The executive committee seems to have managed in a very short term to revolutionize retail strategy and service with a mindset shift. To keep up with the always changing needs of its customers and the complexity of the increased competitiveness of telecom sector, Vodafone took advantage of an insight that customers want to be able to explore devices more easily in live versions inside stores. In that way customers feel reassured that have chosen the right product and leave the store with a product ready to use. The strategy formulated for a retail transformation project followed this insight and rolled out in thousands of stores. But basic requirement here is staff to be equipped with the knowledge and confidence necessary to be familiarized with Vodafone's new customer centric retail vision. Store employees could help customers navigate through the complex device and tariff plan journey allowing them to test products and ask questions during the purchase process. They could also reassure customers that there is someone to ask for post-sales support. New tools also needed to streamline the experience, including

an online appointment booking system for customers planning to visit the store, back-end systems for workforce and visual merchandise management, and mobile payment mechanisms (Nasdac:ttec, 2018). Finally, staff engagement and motivation were increased, helping employees and leading to real impact with customers.

In contrast to the last generation ago when everything felt relatively stable, today's picture in market depicts a market that is on a continuous change and adaptability to new generation's needs. The commercial and even the Corporate Responsibility Strategy (CSR) strategy is clearly closer to new generations, trying to be an employer of choice. "Portfolio careers are becoming the norm, remote and flexible working is commonplace and even C-suite positions are evolving at speed" is noticing Keely Neenan, Business Account Executive at Vodafone in her blog in LinkedIn (Neenan, 2018). New technological innovations are almost constantly being introduced into organisation's workplace almost constantly – and it's set to transform how employees work and what work means.

Executives and business leaders are trying now to create a culture that love and utilise change, one of the biggest drivers of the brand - rather than fears, being currently the biggest drivers of the brand. One of the score prerequisites to this new age for Vodafone is the element of quantifiable workforce which uses technologies to access a range of new insights about employees and data insights. The management teams can proactively design strategies to deliver a better employee experience, improve safety and minimise unnecessary overtimes. The pop-up teams with vendors and freelances or the short-terms hiring according to an occasion, is not priority anymore with the scope of attracting more qualitative and intelligent executives who are going to work in groups or subgroups. With this model to be full of challenges, Vodafone combats competition for talent and face the real risk of skills which are not be available when needed. To that right, Vodafone HR underpins such teams, including those of IT or those of care centers, with a more digital one, to enhance organisation's digital profile, enable agile working and attract the right talents. Thus, through unified communication platforms across cultural and geographic boundaries, Vodafone enables now easy collaboration with talents worldwide (Neeman, 2018). Finally, another element of the digital shift is artificial intelligence (AI) which, as a powerful emerging tool manages to automate repeatable and time-consuming processes which have been penetrating to customer care services, deliver insights and strengthen customer engagement through chatbots.

Leadership teams and Intelligent executives know very well that this shift could create a great concern about potential redundancies. They have the responsibility for using ways that don't replace the "mental" with the "valuable" and for that reason the try to highlight the balance between human and robot. Trying therefore to develop a comprehensive people strategy that encompasses upskilling,

recruitment and communications, the organisation is making decisions about how AI is introduced and ensure that it benefits everyone at the right time.

Agile Work Effect

Vodafone Group, with all OpCos worldwide, is now on the process of building an agile mindset, to change the character, condition and nature of the organisation itself. Most of the main markets have introduced restructures below agile framework but some of them have the spotlight. Vodafone Greece, for instance, started very fast to embrace the methodology and thrive in a collaborative, self-organizing, fast changing environment meeting its “T2M pressure” (Antonopoulos, 2018). The executive’s decision making was hard as it meant lagging behind other projects and most part of next years’ budget would be directed to new front and back end teams, talent staff recruitment, new equipment and renovations in offices. One of the core changes was the modifying of the marketing / commercial request process to IT which change the way employees used to work and collaborate according to waterfall methodology. With scrum methodology right now, marketing teams make request to operational teams but as a part of the process, all teams need to seat down together, collaborate and have a deep dive into all customer journeys (user stories) regarding the requested project. This new methodology allowed teams to make changes quickly without failing to meet deadlines or waiting for the final products to launch new services and products. The main goal is finally the transformation of IT with a vision to deliver leading products to the market with the best T2M and quality in order to provide competitive advantage to the business to enhance customer delight (Antonopoulos, 2018).

Vodafone’s goal is empowering customers for a better tomorrow through connection to live the sort of lives that they want (Matt Williams Interview, 2018). Vodafone had (and in some things still has) always operated at a ridiculous pace for its employees but also for its competitors; means that the organisation is under a lot of pressure to deliver new and better services and customer experience, due to the high volumes through the pipe which teams needed to execute on very quickly. The challenges that Vodafone is dealing with right now is about making sure that customer experience includes also a really digital experience that enables customers to live the sort of modern lives they want, where they’re consuming more, because they’re basically living their lives digitally. The reason why Vodafone brings agile into its functions was the feedback they were receiving across all working directions, particularly around transparency prioritization and the distinct agile edge. Basically, it was

all about establishing the squads and helping through some coaching to build up the rituals, the working practices and getting those agile squads up to work (Matt Williams Interview, 2018).

While implementing agile, teams and executives started focusing mainly on outcomes around customer centricity and value driven decisions. The better understanding of business purpose and the targeting to one thing, customer care, brought also the biggest benefit which is the engagement of all teams. McDonald, Commercial Manager of Vodafone New Zealand, declares: *“We have the processes in place, we’ve got the discipline of agile coming through but more than actually we’ve got the leadership team and our executive team who are absolutely on board. They can see what we’re working on it’s very clear what our priorities are, and they are engaged. They have a chance to feed in. They have a chance to question, to challenge and to support. it’s a beautiful thing so we’re just progressing incredibly quickly”* (McDonald, 2017).

Although agile methodology brought lots of key advantages in business operations, challenges may also be raised in the meantime. A huge amount of incomplete and critical projects which are running in parallel throughout the organization from finance, sales or/and commercial units are more difficult to be handled by project managers due to the prioritization, staff shortages and challenges of routine. Another challenge was life cycle department and the technical teams’ decentralization. When new agile teams are creating, usually the most well qualified staff teamed the new structure, abandoning as a result, other units, losing thus the team any sense of knowledge and experience. The unavailability, in other words, of trained staff on agile transformation knowhow creates the need of training the existing staff and creating position gaps. The lack of dedicated people in roles and train members caused a delay on planned projects. Agile software implementation and the transitioning from traditional methods brought plenty of difficulties. After surpassing the hurdles, however, a couple of sprints, business analysts and Human Resources units see that squads finally start getting in their hands things, understanding how to work efficiently, with the outcomes being very promising (Antonopoulos, 2018).

Time seems to move faster, customer focus to increase, and Vodafone teams to be more excited about the potential of the future (Matt Williams Interview, 2018). The engagement inside teams is thriving and digital tools also, like dashboards for goal setting, help building more team transparency, accountability and the ability to act faster (Conversation with a CEO, 2018). The first desired results expected to be the cost and risk reduction, short cycle time and improve quality and security. For Vodafone, embracing agile meant to produce qualitative digital - telecom support services, IoT software and equipment in short, fast increments. But most importantly agile transformation helped Vodafone to be able to embrace and thrive in a flexible, collaborative, fast

changing environment, improving productivity and competitive business advantages. Although first steps were in a pilot framework to explore potential benefits and forward to a bigger scale transformation, after two years the organisation is ready to scale and establish an autonomous.

Besides cost reductions, Vodafone's vision, after ensuring outcomes, is the focus on empowering teams and the enhancement of employer brand proposition. Agile teams proved to be the greatest company's vehicle for combining digital tools and technologies with human factor and finally offer the perfect digital experience to Vodafone Customers. Vodafone Group have already seen metrics, like the NPS to have been improved in many opcos to 61% and the volume of calls into contact centres to be also at a record low (Carey, 2017). Finally, people and customers appreciate more when the company cares and value more their opinion. The primary feeling is that customer's needs are in the central position of the company and the business goal is to solve customers' problems and fulfill their needs, not just getting incremental revenues. The vision of customer centricity and the focus on agile and technology also gives also space for Vodafone to change its position as an employer of choice and gain greater value: both in what employees bring and what they gain from the business. Trying now to improve EVP, Vodafone observes that it can approach more and more talent people to staffed agile teams and other positions.

Vodafone Workforce

The digitalisation of the market brings massive changes in the way Vodafone creates its services, but it brought bigger changes to the way organisation drafts organisational structure, invests in people's digital acceleration and claims a fun work environment. To goal for teams is to consist of people with different expertise who are supported by all executives so as to quickly accelerate and take the right business decision (Antonopoulos et al., 2018). The teams working in an agile environment, are trained to work differently with main pillars the cooperation, the trust between team members and the ownership. The digitalisation and the coding managed therefore both to enrich well oriented services for customers and to create better places to work for employees (Antonopoulos et al., 2018).

New talented and digital savvy employees are undeniably a first step to start a turnaround towards digital strategy and innovation. The need for differentiation on customer experience and empowerment of Vodafone workforce boosted employee productivity, experience and engagement by introducing new capabilities and ways of working. Phil Fumey, Solution Design and Business Innovation Manager at Vodafone explained that the key aspect in Vodafone plans to go digital was Vodafone's and SLT's commitment to improve the employee experience. "That means we are looking at introducing elements of delight and community to the working day, opportunities for better productivity and how we can support our employees and partners throughout their time with the company" (Fumey, 2017). As Fumey notes, 49% of Vodafone employees are Millennials who are taking already managerial roles, being the most digital native part of the workforce, and carrying the weight of digitalisation and the way information is shared and communicated (Fumey, 2017). But the digital transformation of Vodafone is not based strictly on new generations. Senior executives were committed to be retrained and to participate in reverse mentoring initiatives (e.g Digital Ninja powered by Millennial employees) as the best way to start reconsider priorities in the new digital economy. The initial idea was all about how to empower newcomer employees and leaders with the knowledge being more appropriate for them and responsive at the same time with the digital transformation goal.

Learning & Development

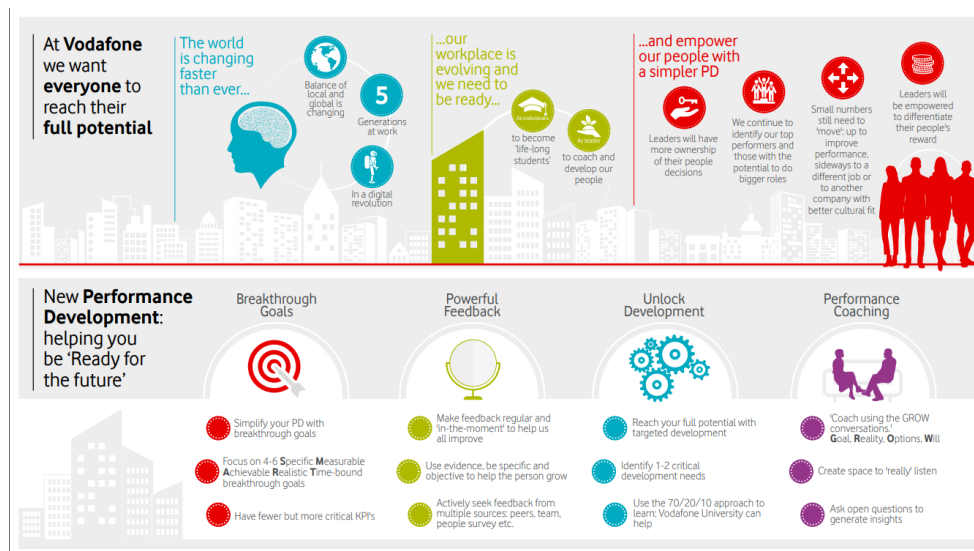
Speed, simplicity and trust are the core three principles of Vodafone to the new "Digital Vodafone Way" strategy which includes a fast accelerating environment for employees' culture and skills. Vodafone's goal is to identify the employees who can meet swiftly and effectively opportunities and challenges in customers' live.

Key initiatives have been taken at all levels of the organisation to support the further development of skills and the cultivation of trust between Vodafone customers, employees and all stakeholders. More than 200 leaders of Vodafone Group Executive Committee attended the "Digital Discovery" program to deep dive on digital products, understand required leadership shifts and gain insights on the impact that digital disruption has on various business models. Digital Boot Camps, focusing on customer experience, have also been rolled out to company's managers. In the meantime,

IT systems, processes and capabilities are being supported with acceleration programs which strengthen employees' capabilities to adopt agile and lean operating models of working (Comunicaciones, 2017).

As a key enabler for digital acceleration, Vodafone is investing in their employees' performance through a continuous learning and development content offer. HR leaders and Learning and Development (L&D) managers believe that all employees, regardless their retention, need to be helped reach future expectations by following a Performance Management and Personal Development plan to be ready for the future.

Figure 15 – Performance Development Infographic – PD2020



The challenge of Vodafone Learning and Development team is huge as it needs to continuously reinforce learning experiences, inspire employees and replicate classroom and online dedicated content in Vodafone University, in high-pressure situation. Examples of this online content are the Agile training modules, marketing and commercial courses and the 90-day 'Way of Care' customer excellence programme learning modules for front liners, including outsourced partners and franchisees worldwide. The development plans are embedded to employees' mandatory journey and are in alignment with business goals. Claire Barron, Customer Experience Academy Manager at Vodafone, claim the significance of the learning shift: "We wanted to embed learning assets in workplaces and motivate [...] staff to keep returning to them, even if it can sometimes be difficult to reach employees on the go" (Barron, 2017). With the restriction of classroom-style instruction to be far from employees' everyday life, the teams created online courses which touched more than 36K

viewers. In contrast to the traditional learning, these courses designed based on the commonality of content by being delivered on mobile phones and the need for more flexibility, so that a user can watch it whenever s/he can. The gamification also strategy helped the organisation to deal with indifference of workers, to make assets more readily available and promoting a fun-based and competitive learning culture (Claire, 2018). Vodafone in cooperation with other stakeholders, like Avado and LinkedIn, has been developing workshop and digital platforms where the user can identify potential needs and constraints and develop new skills. Accessible content – explainer videos, best practice PDFs and short games – is encouraging flexible learning and peer-group competition for knowledge, even in busy and pressurised workplaces. According to Ms Barron, the new Vodafone University - mobile friendly - page' popularity vindicates the focus on accessible content: "We've had very positive uptake from teams. The response from India, in particular, was amazing. Our management is keen to use it more widely" (Barron, 2017). The figures coming from HR show that employees are coming back with behavioural changes intensively conscious of their prospects for career growth as long as they use the right tools. The assets have been visible worldwide as the core messages and behaviours from the learning have been integrated into both the frontline employees of the company and its overall culture of service delivery (Clarke, 2018)

Unlike to the traditional learning management system (LMS), the new digital means which are in the disposal of Learning and Development Team, can provide management reporting data on learning completions, measures and cultural change. Ambidect's managing director, Tim Thomas-Peter believes that useful conclusions can now be drawn from the e-learning programme: "Corporate LMSs tend to measure the teaching that's been done. What companies with extended workforces really need to know these days, however, is the change or the level of improvement achieved".

Performance Management

The Performance Development of 2020 (PD2020) being created by Vodafone tries to set an environment where its employees will be ready for the future. Vodafone believes that the meaning of local identity is more powerful than ever before, so it tries to recognise local roots and strong inclusion principles. Its workforce also includes 5 different generations: 49% are millennials and research suggests that by 2025 the workforce of the organisation will have 76% millennials (Comunicaciones, 2017). Therefore, the effort to respond with Digital is immense, taking also consideration the changing

landscape of competition. Transforming all employees to 'life-long students' proved to be the best way to help everyone reach his/her full potential (Vodafone University, 2018). More specifically, Performance Development focuses specifically on 4 different pillars:

- 1) **Breakthrough goals:** Starting with the big picture, employees called to set the path towards that vision and focus on measurable, achievable and realistic breakthrough goals (with less detailed KPIs), Ready to get out of their comfort zone, people in Vodafone imagine what success will look like and translate this into fewer KPI's (Vodacom, 2018).
- 2) **Powerful feedback:** Regular and “in-the-moment” feedback from multiple direction (peers, managers) believed to be a powerful way from employees to become truly transformational to their performance. So, Vodafone drives employees to start to actively seek feedback - engage in it with confidence and curiosity, even if something seems wrong (Vodacom, 2018).
- 3) **Unlocking development:** Everyone in the company should have a development plan to improve the performance by building new behaviours, knowledge and skills. Each employee, starting with 1-2 critical development needs and utilising the feedback had been given by the team, manager and the employee survey, creates a personal development plan or PDP (Vodacom, 2018).
- 4) **Performance Coaching:** Coaching helps employees and leaders to learn and fulfil their potential rather than telling them what to do (Vodacom, 2018).

Vodafone doesn't have any rating for peoples' performance assessment but is more like a focus on ratings conversations that helps people grow and develop. Only for those who are outstanding performers or who can take much bigger roles, HR wants them to know that so they can ensure they are rewarded well and have access to global opportunities. People not doing well, they need to move their performance up, moving sideways to another role or line manager or moving out of the company (Comunicaciones, 2018).

The new performance dialogue rating system serves the new digital age and ensures the pay practices, including retirement and other benefit provision. Global short-term incentive plans are offered to a large percentage of employees and global long-term incentive plans are offered to senior managers. The conclusions of the first year implementing the new dialogue rating system, has been positive and confirmed that the Board and its Committees operate effectively.

Finally, Vodafone employees are invited every year to participate in a global survey which allows executive committee to measure engagement levels and identify ways to improve how it does things. The 2018 survey demonstrated that 87% of employees who responded were proud to work for Vodafone, consistent with the previous year's survey. In addition, 90% felt that Vodafone was a

socially responsible company, while 87% of respondents would recommend Vodafone as a place to work to their friends and family (Comunicaciones, 2018).

Talent Acquisition and Employer Brand

The goal of the continuous reskilling of employees is not only a part of Learning and Development pillar, but also expands to Vodafone's general talent acquisition and employer brand strategy. Organisation's talent manifesto is committed to encourage and empower employees in an integrated and human-centric way. It envisions a combination of talent, technology, and the workplace across multiple dimensions that will contribute to a better and more fulfilled product and service for customers (Vodafone Group Official Website, 2018).

Vodafone decided to leave behind the traditional framework and to reposition how people should work and collaborate inside the company. According to the Employer Brand strategy, the goal was the development of more inspirational elements that will contribute to the flourishing of a innovation environment. The first thing HR team did try to do was to enable Vodafone employees to work in a more flexible manner in terms of the place people used to work and the devices they use. The company and employees soon abandoned the outdated environment where historically everyone would have his/her own desk and fixed phone. From Vodafone's perspective, there are key benefits like happier employees, better productivity and an ability to reduce other costs. Smart Working, for instance, which enables employees to work at home once per week, contributes both to a better flexible environment for them and a more efficient use of the corporate environment. There is no need for employees to seat in a specific place to perform their work and through great conversation with different people every day, new interesting and innovating products coming through (Mottram, 2017). The building has been transformed to a wireless area where employees can work everywhere while other perks like the on-site gym constitute significant benefits to attract and retain employees.

The talent acquisition strategy achieved to increase the learning and career opportunities that are being provided to young people so that Vodafone Brand be closer to the young people. Such work experiences include apprenticeships, week long placements, job shadowing, and graduate programs.

In 2018, there is an estimation of providing to more than 14,000 young people with the access to digital workplace experiences (Vodafone, 2018). Extended to the most opcos, these experiences provide individuals – that maybe don't go to a university - with skills and opportunities by joining technology and retail areas. Discover graduate program, also, has been in place for more than 10 years and is mainly focused on attracting young talented people. The program has supported more than 4,600 graduates to join organisation with the highest performance to progress to global managers or to move to international Columbus program.

Following also the new employer brand strategy and the digital focus, Vodafone decided to launch the world's largest future jobs platform to help millennials and iGens find a work. Vodafone has plans to radically increase the number of youths gaining employment with them, so that they can get a modern, digital, and enjoyable working experience (Gilani, 2018). With the tag name "What will you be", the company launched the online digital training tool initiative, in cooperation with career advisers, psychologists and experts to provide career direction and access to material in the online economy for millions of young people across different countries. The users of the tool can discover their preferred digital career by taking a simple test to determine which digital roles match their talent and skills. Thereafter, all candidates will be referred to specific job ads in the market – including prospects with Vodafone - or relative online training opportunities (Vodafone Group Official Website, 2018). The fact that the work is what someone does and not who s/he is, is increasingly being established. That way, Vodafone Brand puts itself on the players who perceive the needs of the future as well as shapes the future of labour market hoping to get more young people into the digital economy.

Moreover, recruitment process has been reformed to hire talented youths who will enhance more the competitive environment. In 2017, Vodafone manages to employ an average of 103,564 people with 136 nationalities; From 88% of its employees, 87% responded that they are proud to work for Vodafone. For reaching these heights, recruitment team started to combine gamification and video interviewing to create an all-digital graduate recruiting process, simplified into four easy steps. Twenty minutes of video and gaming is now part of the recruitment with candidates completing a short online form tied to their LinkedIn profiles and finally spending some minutes on a series of games to provide insights into various capabilities such as problem solving, personality, and communication style. After completing the games, all candidates receive a personalized feedback report. Only candidates selected move on to the third step which is the recording of a video interview through HireView digital platform, which digitally assesses and ranks the video interviews to determine the candidate fit.

After passing some time, recruiters have reporting significant improvements in the hiring process. According to the old system, recruiters should screen quite a few candidates to put one through the process; now recruiters are screening two candidates to put one through all the four steps. The company decided to implement a new human capital management software package to replace its hodgepodge of manual and automated systems. But the software wasn't enough—HR needed to get involved to show line supervisors the importance of managing talent over time, from hiring through orientation and beyond. HR set up a centralized recruiting center to pre-screen candidates for individual stores. It also established a series of standardized processes to make sure candidates didn't fall through the cracks and would enjoy a better and more consistent experience. New employees were set up with learning plans as part of their onboarding, and Vodafone HR took note of their competencies and career interests (Digital Today, 2017).

By centralizing the employee data, HR was able to move the organization towards an “open market” approach to talent and mobility. This helped not just the retaining of current employees but also the attraction of outside candidates, driving a consistent candidate experience across the enterprise that is better aligned with the company's talent strategy. In order to ensure a stable inflow of talent, Vodafone finally created an approach which delights candidates, especially with job market tightening and with a broader perspective on hiring through the lens of the candidates.

Diversity and Inclusion

The organisation as part of the intense shift towards the future took the decision to deploy a new pillar dedicated to diversity. The executive team believes that a diverse and inclusive organisation has more chances to meet the competitive goals that have been arranged according to digital acceleration and Vodafone profile. Taken that into consideration, the executive committee also agreed also to support diversity and inclusion in the Boardroom. This includes diversity of skills and experience, age, gender, disability, sexual orientation, gender identity, cultural background and belief (Vodafone Group Official Website, 2018).

The Committee annually reviews and agrees the Board Diversity Policy and monitors the progress made at the Board and management and leadership levels during the financial year. The

Committee also monitors Vodafone's compliance with the targets outlined and right now more than 33% of the Board roles are currently held by women. This exceeds the 25% target set out in the Davies Report. The long-term ambition is to increase diversity on Board in all forms. Diversity extends beyond the Boardroom and the Committee supports management in its efforts to build a diverse organisation. Currently 29% of the management and leadership roles are held by women and the goal is to increase to at least 30% by 2020 (Vodafone Annual Report, 2018).

In 2017 Vodafone Human Resources unit employed more than 103,564 people with 136 nationalities as well as over 23,978 contractors. The senior leadership includes 26 nationalities, bringing together a diverse set of experiences and opinions, which enables the diversity and inclusion goals by better understanding the needs of customers. The outcome of this shift of perspective brought a quite encouraging outcome: In the 2018 annual Global People Survey, 89% of employees who responded said they felt they were treated fairly, irrespective of their age, gender, disability, sexual orientation, gender identity, cultural background or beliefs. This year, they reviewed and updated the Code of Conduct in order to emphasise Vodafone zero tolerance stance towards sexual harassment and abuse of authority. In the context of equality and seeing the contemporary needs of its employees, Vodafone's HR team also launched a global minimum paternity standard, while is continuing to support women returning to work through "Reconnect" program and global maternity standard, which, in the last three years has benefited more than 5,600 women (Vodafone Annual Report, 2018). More specifically, ReConnect program is designed to attract talented women who had a career break for several years, are struggling to make professional connections and would like to return to work at their pace on a full-time or flexible basis. The program will complement other Vodafone global initiatives focused on encouraging and supporting women in the workplace (Vodafone, 2018). More specifically, the global pioneering maternity policy across 30 markets offers all women a minimum of 16 weeks fully paid maternity leave, and when they return to work they can opt to work 30 hours per week on full pay. As well as saving businesses up to \$19 billion, this support could save families almost \$140 billion worldwide, and these babies would gain 608 million additional days with their mothers. The already mentioned #Codelikeagirl program also addresses the gender gap in STEM careers, by encouraging more girls to pursue science, technology, engineering and maths disciplines. In partnership with social enterprise Code First, girls aged 14–18 through Vodafone's experiential program are being provided with basic coding experience like the html and the CSS (Vodafone Group Official Website, 2018).

All the above initiatives support Vodafone's ambition to become the world's best employer for women by 2025. Ex CEO Vittorio Colao declared: "A dream, an ambition, which is to have the whole

of Vodafone ... as the best place, with a reputation of being the best place for women to work, become managers, become executives, become senior executives." (Vodafone Annual Report, 2018).

At the end, the LGBT & Friends Network is working to connect and support employees on LGBT+ matters, whatever their background and wherever they are. Its existence has a goal to help celebrate diversity at work and to support their employees to be at their best and have a great experience working with the organisation. The program at the very beginning aimed at hiring and supporting LGBT+ people and providing training for managers. After some years, Vodafone awarded by the international research "Out Now" - surveyed more than 3,000 LGBT+ people across 15 countries - Top Global Employers for LGBT staff by committing to creating a culture where employees can be open about their sexual orientation and gender identity (Scott, 2017).

"The future is exciting"

Vodafone is not only preparing itself for the workforce of tomorrow by retraining its employees but is also aware of the fact that young people need professional guidance to really know what they will do in the future and what are the professions of the future. Catalina Schveniger, Global Head of Resourcing and Employer Brand at Vodafone gave recently an interview regarding the challenges of the workforce of tomorrow and how is the best way for companies to attract the best talents. She didn't hide her concern and surprise about the young people today who are studying in high demand fields in market related to the STEM - Science, Technology, Engineering, Mathematics and they are not concerned which career path should follow. The greatest question arisen is "if these children, who have the greatest chances of success, have no idea of their future, what about young people with fewer skills". Some time ago, Vodafone, in cooperation with YouGov, conducted an international survey on youth and the skills of the professions of the future. The survey showed that the total of 6,000 young people who participated in, 67% received insufficient or no professional guidance for the future of digital economy. Most young people - over 56% - admitted that their biggest difficulty was to find a decent earned job (Konstantatou, 2018).

Ms Schveniger explains that due to the explosion of Internet of Things and Quantum Computing, there is a need for a new set of professional skills. Artificial Intelligence is probably the

king of this new state. The demand for jobs related to artificial intelligence has tripled over the last few years and is enormous. “There is also a great demand in large data sciences, in code writing and computer engineers” (Konstantatou, 2018). There are, however, many more positive developments in other fields like linguistics and other creative industries which disappear in their attempt to use more traditional skills in the digital market. These new combinations of factors are creating new job opportunities; digital coaches – teaches algorithms in bots - or digital law are some new area of jobs (Konstantatou, 2018).

According to an Accenture study which is being embraced by Vodafone, artificial intelligence will lead to the creation of three new categories of work to be executed by people. There will be trainers (AI trainers), explainers and sustainers. The first group will teach artificial intelligence systems to look beyond the literal meaning of human communication and get a broader perspective to take into account cultural stereotypes when deciding. The second category of artificial intelligence experts will design intelligent decisions based on the economy, the processes and other factors. They will also categorize the different types of opacity of artificial intelligence algorithms and decide whether to exploit AI for specific applications. The sustainers, finally, will assess the non-economic effects of smart machines and the cost of their low performance, they will promote algorithms that work well to help businesses grow more.

Vodafone has fully understood the digital shift and tries to support young people to succeed in the digital economy, by discussing about people experience and how this could be enhanced. STEM fields are especially the areas where Vodafone has been focusing in which empathy and creativity are required for candidates to ensure qualitative career roles. For the success of this shift, data and analytics should constituted an integral part of HR decisions in order to better understand what the workforce needs and how to support the emerging digital roles. Inclusiveness, well-being, mindfulness, and more are also all part of it. Vodafone is essentially eliminating the traditional HR, focused more on coaches and people-support. The challenge however is to have the necessary individualized workforce data to analyse each individual’s story.

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Conclusion

The dissertation has aimed to determine the changes that have taken place due to the emergence of the Digital Revolution in today's business world. This revolution is related mostly to the redesigning of both traditional business operations, as well as the working environment. The findings of the dissertation will be outlined below.

The, until now familiar way of operating business is now considered obsolete and inefficient. Businesses that are operating in areas where digital penetration is the new reality, are forced to change their operational structure to one which is more flexible, aware and sensitive to stimuli of customers in order to enhance their services and products. As the new more digital savvy and demanding generations come to the foreground, the business environment learns to adapt faster to the continuous consumer needs, by creating the prerequisites for an easy change of product priorities. The agile methodology has become the fast vehicle for bringing about acceleration of product processes, the sustainability of projects in the currently ambiguous economy and a more open and attractive working environment for talented people. The open talent economy is progressing quickly towards an augmented workforce which is characterised by the acceleration, deployment and adoption of cognitive technology. Soft skills, cognitive tools and digital savvy employees have become more essential than ever before and businesses invest much of their money in retraining people to use technology and in recreating jobs to better take advantage of technology.

Digital Intelligence constitute the core job requirement for companies today which refers to the ability to use technology safely, the creation of new ideas through technology and the creation of new opportunities. The mission of creating a new culture of innovation, has brought HR into a leading role in helping organisations to move faster towards digital transformation. In conclusion, this goal is not strictly limited to the internal environment of organisations, but implies more the responsibility of them to meet today's and tomorrow's challenges related to the embellishment of social process in the new digital world.

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Other Notes

Principles Behind the Agile Manifesto

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity--the art of maximizing the amount of work not done--is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.

(Agile Manifesto, 2001)