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ISTANBUL OKAN UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

CONSUMERS RESPONSES TO DIGITAL TRANSFORMATION AND BRAND'S DIGITAL MARKETING STRATEGY

OUSMANE HAIDARA

THESIS

FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

ADVISOR

Asst. Prof. Ceyda OVACI

ISTANBUL, June 2020

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Submission Date : 11 June 2020

Presentation Date : 11 June 2020

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ISTANBUL, June 2020

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ABSTRACT

CONSUMERS RESPONSES TO DIGITAL TRANSFORMATION AND BRAND'S DIGITAL MARKETING STRATEGY

This study aims to explain consumer's reaction to digital transformation due to the widespread of internet, electronic devices (computer, smartphone, tablet et.) which enabled people to access a huge amount of information rapidly and allowed them to save time and money. Also, to explain the company's efforts of doing all the possible digital marketing strategies in order to satisfy consumers and to become loyal customers, such as allowing them online purchasing, making payment online by the cards. Furthermore, this research aims also to unveil digital literacy level of consumers toward mobile apps of coffee brands, and its relation with trust, satisfaction loyalty etc., to the apps.

255 students participated in the study with different age groups and education level. For the data collection, participants filled in the questionnaire, after collecting data by the questionnaire it was analysed through SPSS (Statistical Package for Social Sciences) of using descriptive statistics to determine the mean and standard deviation of all variables, then frequency, and cross tabulation were also used. Correlation analysis was conducted to test the hypothesises of the research. As a result, male was more engaged than female of using mobile apps of coffee brands, and most users of this apps were undergraduate students, and lots of respondents buy coffee regularly (every day), and correlation test confirmed that digital literacy has the positive relation with each factor.

Due to the high mean of every single variable, many of respondents were loyal, satisfied, willingness of intention to purchase was higher, they trust mobile apps of coffee brands and their firms with acceptable level of digital literacy.

Keywords: Digital transformation, Internet, Electronic devices, Digital marketing strategies, Loyal customers, Online purchasing, Online payment, Digital literacy.

ÖZET

DİJİTAL DÖNÜŞÜME TÜKETİCİ YANİTLARİ VE DİJİTAL PAZARLAMA STRATEJİSİ

Bu çalışmada, internet, elektronik cihazlar (bilgisayar, akıllı telefon, tablet vb.) Yaygınlığı nedeniyle tüketicilerin dijital dönüşüme tepkisini açıklamayı amaçlamaktadır. Ayrıca, tüketici memnuniyeti ve çevrimiçi satın almalarına izin vermek, kartlarla çevrimiçi ödeme yapmak gibi sadık müşteriler olmak için şirketin olası tüm dijital pazarlama stratejilerini yapma çabalarını açıklamak. Ayrıca, bu araştırma, kahve markalarının mobil uygulamalarına yönelik dijital okuryazarlık düzeyini ve uygulamalara olan güven, memnuniyet sadakati vb.

Çalışmaya farklı yaş grupları ve eğitim düzeyleri ile 255 öğrenci katılmıştır. Veri toplama için, anketi dolduran katılımcılar, anketle veri topladıktan sonra SPSS (Sosyal Bilimler için İstatistiksel Paket) aracılığıyla tüm değişkenlerin ortalama ve standart sapmalarını, daha sonra frekans ve çapraz tablolamayı belirlemek için tanımlayıcı istatistikler kullanarak analiz edilmiştir. Ayrıca kullanıldı. Araştırmanın hipotezlerini test etmek için korelasyon analizi yapılmıştır. Sonuç olarak, erkek kahve markalarının mobil uygulamalarını kullanmaktan kadınlardan daha fazla meşgul oldu ve bu uygulamaların çoğu lisans öğrencileriydi ve katılımcıların çoğu düzenli olarak kahve satın alıyor (her gün) ve korelasyon testi dijital okuryazarlığın olumlu olduğunu doğruladı her faktörle ilişki.

Her değişkenin yüksek ortalaması nedeniyle, katılımcıların çoğu sadık, memnun, satın alma niyeti daha yüksekti, kahve markalarının mobil uygulamalarına ve kabul edilebilir düzeyde dijital okuryazarlığa sahip firmalara güveniyorlar.

Anahtar Kelimeler: Dijital dönüşüm, İnternet, Elektronik cihazlar, Dijital pazarlama stratejileri, Sadık müşteriler, Online satın alma, Online ödeme, Dijital okuryazarlık.

ABBREVIATIONS:

AI: Artificial Intelligence

ALA: American Library Association

App: Application

ARPANET: Advanced Research Projects Agency Network

BBC: British Broadcasting Corporation

BMW: Bavarian Motor Works

CRM: Customer Relationship Management

E-CRM: Electronic Customer Relationship Management

FTC: Federal Trade Commission

GB: Great Britain

GDLC: Global Digital Literacy Council

GIFs: Graphic İnterchange Formats

HP: Horsepower

HTML: Hypertex Markup Language

IBM: International Business Machines

IC^3: Internet and Computing Core Certification

IoT: Internet of Things

ISO: International Organisation for Standardisation

IT: Information Technology

Kw: Kilowatt

MEMS: Microelectromechanical Systems

MIT: Massachusetts Institute of Technology

M2M: Machine to Machine

NTIA: National Telecommunications and Information Administration

PLC: Programmable Logic Controller

PPC: Pay Per Click

RFID: Radio Frequency Identification

SAP: Systems Applications and Products

SEO: Search Engine Optimisation

SFA: Sales Force Automation

SMAR: Southern Maryland Association Realtors

SMS: Short Message Service

SPSS: Statistical Package for Social Sciences

UIDs: Unique Identifies

UK: United Kingdom

USA: United States of America

VR: Virtual Reality

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1. INTRODUCTION

Digital transformation has been an important concept in today's world, the social lives are completely structured by the digital communication and media infrastructures. In a part, digital technologies played a relevant role of this transformation, consumers are now able to make transactions online, storage big amounts of data on computers, and accessing millions of results information in a few seconds. By the digital transformation, individuals are saving time to do something others and reduced wasting money as the world is running very fast at every sector. Moreover, comparing this phenomenon to the beginning introduction of digitalisation industrial revolution, the world was moving manually and slowly. With the first industrial revolution, most of people did not trust that mechanisation it was strange for them, only United Kingdom was able to produce by the steam and water power to make clothes and other things and then distribute to the rest of the world.
By this way through the rest three other industrial revolution, some countries like (Unite States, Germany, Belgium, and France) joined England to the following digital development such as (Mass production, electricity, electronics, İnformation Technology Systems, Automation, and Cyber physical systems)[1].

However, another important part is that; despite all of these transformations, consumers learned about them especially millennials and alpha generations (from 10 to 34 years old of people) in order to be digitally literate and being aware of company's online advertisements, knowing more about the products and brands. Companies also in their turn put in place digital marketing strategies to be closed to the customers, understanding their needs, communicate to them. Thanks to social media brands are now touching millions of their customers and permit them to pay online in order to make clients happy in this digital environment.

Speaking of digital marketing, coffee firms are using 'Google My Business' listing for their coffee shops as digital marketing strategy to get appeared in Google's "Local Park, Local Finder and Google Maps" and to get attention of consumers by providing information about them. By using different social media platforms, some coffee

[1] (Peter N. Stearns 2012)

brands are unifying the theme of branding style that allows them to keep connected with consumers and to make awareness of brand efficient in the process. They are also using social media contests which is a great tool of digital marketing strategy to build a quick relationship with their audiences. It encourages consumers to communicate having conversation with brands by providing their e-mail for the next good offers[2].

Therefore, this research paper was conducted with 255 respondents (students) at Istanbul Okan University with different age groups, education level, and different coffee brand preferences, to investigate upon participant's response (reaction) to brand's digital marketing strategy such as mobile apps of coffee firms. The majority of respondents were male between the age 21-29 and undergraduate students, for the preference of coffee brands, Starbucks was the most preferred by respondents and the majority of them are male with 65.5% of participants, mobile apps of coffee brand is one of the digital marketing strategy options for coffee firms, unfortunately only 39.2% of respondents use this apps between the age 21-29 and 18-20, literature review supported well this part that millennials are also using technology devices, internet, software etc.

The study is conducted for the purpose to discover the relationship between consumer digital literacy ability of using technology devices, internet etc., and consumer loyalty, satisfaction, purchase intention, intention to recommend, and trust as dependent variables towards mobile apps of coffee brands.

[2] (K. Latkovic 2018)

CHAPTER I: DIGITALIZATION AND INDUSTRIAL REVOLUTIONS

1.1. THE CONCEPT OF DIGITALIZATION

The word digitalization means the transformation from analogue to digital as people tend to digitalization, in the manner social-life fields are restructured around "digital communication" and "media infrastructures"[3]. This definition is based on social life. The social roles of the "digitalization society" are asserted in the condition of taking account objections to, and promises for, "computer-assisted humanities research"[4].

Furthermore, digitalization refers to use digital technologies to create new business model and offering new revenue with chance to create value[5]. The definition of Gartner has tendency of moving to the digital business, he claims to emphasise on changing "business models" rather than "social interactions". But it is sometimes referred to like digital transformation because it is about changing and adopting modern technologies rather than the traditional ones for better running business or organization. For example, Turkish Airlines has introduced a new trait for extending baggage detecting "RFID" card, this card allows passengers to know when their baggage will arrive at the luggage conveyor, by sending them an SMS after landing, so no more stress now while waiting for baggage to be at the pick-up area.

Digitalization brought a lot of changes to marketing since the beginning of industrial revolution. E-commerce is a part of digitalization that included the change of physical products into "digital devices", recommendations of consumer on social media, and introduction of "digital devices" into the buying process, like searching information online lead to the offline purchases[6]. It has changed increasingly consumer practices, their

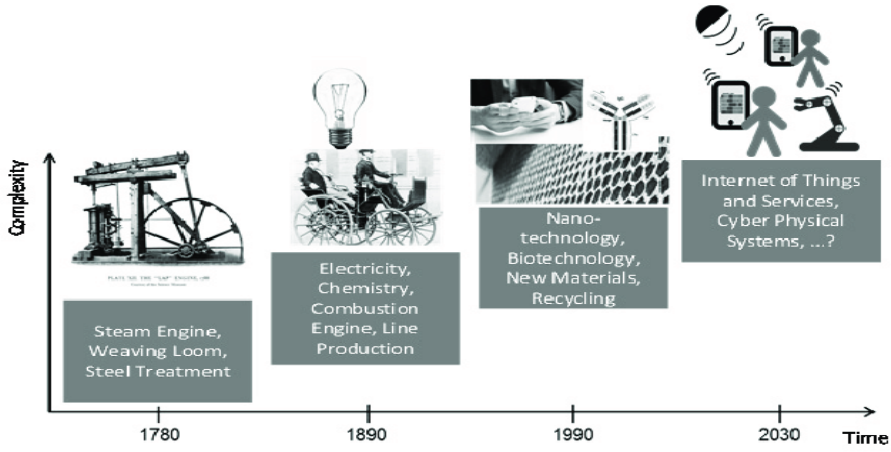
[3] (S. Brennen & D. Kreiss 2014)
[4] (R. Wachal in "sanders" 1974:575)
[5] (Gartner 2018),
[6] (Pauwels, K., Leeflang, P.S.H., Teerling, M.L. & Huizingh, K.R.E. 2011)

behaviour over products with quick access to company ads by the used of "mobile devices" connected to the internet[7].

1.2 INDUSTRIAL REVOLUTION

The Industrial Revolution is the procedure of change from agricultural and handiwork economy to the one controlled by Industry and machine manufacturing. *"The Industrial Revolution was a period of major industrialization an innovation that took place during the late 1700s and early 1800, the Industrial Revolution began in Great Britain and quickly spread throughout the world*"[8]. Despite the fact that the first industrial revolution took place roughly 200 years ago, it is a moment that people have been affected profoundly the way they lived and also the way businesses run, and the factory systems emerged through the industrial revolution which caused the invention of capitalism and recent cities of today. Any time it is good to remind that before industrial revolution people suffered a lot with lower wages. Therefore, the paper talked and gave explanation about the 'four Industrial Revolution' below.

Figure 1: The time line of Industrial Revolution



Source: U. Dombrowski, T. Wagner (2014)

[7] (Hagberg, J., Sundström, M., Nicklas, E-Z. 2016)
[8] (J. Chen 2019)

The graphic above shows the development steps of industrialization from 18th century until today, as it illustrated the phenomenon started in the late of 18th century by the help of water and steam power the introduction of 'mechanical production facilities' which is called as the "First Industrial Revolution", then after a century over the late of 19th, people developed again industry, but this time with the help of 'electrical energy' they started division of labour and mass production; the period that the first assembly line 'Cincinnati slaughter houses' has been created, and the period is commonly known as the "Second Industrial Revolution". Another industrialization development occurred in the late of 20th, in which period the use of electronic and IT systems first appeared that further automated production, also when the first Programmable Logic Controller (PLC) and Modicon 084 have been invented, and this revolution is named as the "Third Industrial Revolution"[9].

Then in the 21st the actual time that the use of cyber-physical systems born, connectivity of all machines which is so commonly known by the name "Fourth Industrial Revolution". The complexity of the 4.0 is much higher than the three revolutions precedent.

1.2.1 INDUSTRY 1.0: MARKETING APPLICATIONS AND INDUSTRY DEVELOPMENT:

Marketing applications:

Marketing 1.0 has been the first step of marketing that is composed of many concepts, "production concepts", "product concepts", "selling concepts and marketing concepts" during industrial revolution[10]. By the result of industrial revolution marketing 1.0 began with production concept. In the beginning of marketing 1.0, few businesses were engaging in production in the market, they were focused on goal to make more production with low cost[11]. Businesses utilized machines of industry in order to make happen this objective which is to manufacture standardized products in higher quantity. Accordingly,

[9] (Robert J. Shiller 2018)
[10] (H. Başyazıcıoğlu, K. Karamustafa 2018)
[11] (Kotler, P., & Keller, K. 2006a)

consumers were considered as passive and had no power to influence the production process of businesses[12].

The founder of "automotive industry" Henry Ford, announced in meeting that every customer can get the painted car with whatever colour he wants as the black one is. Several researchers agreed with this and that is summarized perfectly "the production concept of marketing 1.0"[13]. The number of businesses started to proliferate in the market as economic increasingly developed. Then because of this, alternative products started to increase very rapidly in time, so businesses realized that customers are interested in products that provide high quality. Thus, they changed their business strategy from "production concept" to "product concept"[14]. Producers continued on that way providing high quality of product to differentiate their offers from others to attain competitive advantage. After a while, businesses realized that innovativeness and quality were insufficient to sell products. Because of this the "selling concept" appeared. Then, aggressive sell started through promotions and advertising by producers[15]. Organizations were focusing on point to convince customers to buy more.

Moreover, misleading selling activities were not solutions to make long run profit for organizations, and they noticed that "customer satisfaction" was the key element for business success, and business changed the strategy to "marketing concept"[16]. By this concept, producers shifted their strategy from finding "right customer for their product" to "finding right product for their customer"[17]. Since this, businesses decided to make high quality products that provide "customers functional benefits"[18]. The principal marketing communication channels were "traditional media" and were unidirectional at that time of industry[19].

[12] (Nowacki, F. 2015).
[13] (Albay, M. N. 2010).
[14] (Kotler, P., & Keller, K. 2006b).
[15] (Kotler, P., & Keller, K. 2006c).
[16] (H. Başyazıcıoğlu, K. Karamustafa 2018).
[17] (Kotler, P., & Keller, K. 2006d).
[18] (Kotler, P. 2011)
[19] (Erragcha, N., and Romdhane, R. 2014)

Development of industry 1.0

The first Industrial Revolution started the early of 18th century in Britain which allowed it to be the first modern city, and the world's leading commercial national, although the early of 18th century "*British industries were generally small scale relatively unsophisticated. Most textile production, for example it was centred on small workshops or in the homes of spinners, weavers and dyers: a literal 'cottage industry' that involved thousands of individual manufacturers*"[20]. Therefore, being aware of acquired strengthen they disallowed the export of "machinery, skilled workers, and manufacturing techniques" their monopoly, but could not be remained forever, mainly since some Britons realized the profit of industrial opportunities abroad, while "continental European businessmen" requested to tempt British know-how to their countries. However, two English people, William and J. Cockerill, brought the Industrial Revolution to Belgium by emerging machine soaps at Liege, and Belgium became the first country in continental Europe to show new economic face, like its British founder, the Belgian Industrial Revolution centred "in iron, coal, and textiles".

France was less industrialized than the two countries (Britain and Belgium), at that time Britain was setting-up its industrial guidance, France was submerged in its Revolution, and the undermined political situation; dishearten many investments in individual innovations. In 1848 France registered great growth to become an industrial power, but it remained behind Britain. Other European countries struggled far behind, and their bourgeoisie was not enough to get back the wealth, power, and opportunities of their counterparts from Britain, France and Belgium.

Political conditions were favourable for other nations which hampered their industrial expansion. Germany as puissance nation and possessing vast resources of coal, and iron did not know this industrial expansion until in 1870 after national unity, and then to be by the turn of the century the nation out-producing Britain in steel and was accounted later as the world leader in the chemical industries. In the 19th and 20th century United States with some European countries and Japan too joined the Industrial Revolution with striking success. The eastern European countries were undeveloped in

[20] (M. White 2019)

the beginning of the 20th, which has lasted until the Soviet Union became a major of industrial power, sliding into a few decades the industrialization that had been occurred in Britain for a century and half, registered the expansion of the Industrial Revolution into "hitherto" non-industrialized countries such as China and India.

It is clear that the first Industrial Revolution brought a small number of changes in the commencement, starting in the second half of the 18th century, and through the 1830s, the following benefits had been invented technologies such as textiles, steam power, iron making, invention of machine tools.

Nevertheless, the field of textile by a little before the first industrial revolution, people brought cottons to home or farm to produce in hand, this method takes long time and tiredness before the deliverance called by the term (cottage industry). Then in 1700s with Industrial Revolution Britain was known as the colonial power around the world it used its colonies to America, Asia and Africa to obtain several resources especially the cotton imported from North America and India, and then make the production of clothes and resell to the different colony country. with the time; the British population and other counties started to increase that led to the increase demand of clothes from the population, as controller of international trade and the main supplier of textiles overseas it was necessary to get the new method to meet the large demand for textiles.

"New technological innovations such as Hargreave's 'spinning jenny', Richard Arkwright's water farm, and the Boulton and Watt steam engine improved the quality of thread and speed it took to produce".

However, the textile industry was essentially based in Britain, until when Samuel Slater took English technology to the United States for textile over the 1780s, this "*technological innovations in the United states such as Eli Whitney's cotton were able to further benefit the production of textiles; the cotton gin separated seeds from the cotton more quickly than before so that the United States was able to produce fifty times more cotton*"[21]. The industrial Revolution in the United States took place due to the imitation of British ideas in their country, also in the beginning of textile factories in the United States by which young women were employed and textile factories beneficiated this to make large profits because those women were seeking for the independence against the workforce.

[21] (A. Forgo 2019)

During the first Industrial Revolution another element relevant appeared which was the steam engine; however, in the beginning of the period of the Industrial Revolution a number industrial power was furnished by water and wind, by the 1800 in Britain an estimated 10.000 horsepower was being provided by steam, over 1815 steam power had grown to 210.000 hp[22]. The first commercial steam engine back to Thomas Savery in 1698, He constructed and licenced in London a lift-low united "vacuum" and "pressure water pump" that gathered about a horsepower (hp) and evidently it was used in several water works and, in a few mines, under the brand name "the miner's friend"; then the successful piston steam engine was created by Thomas Newcomen in 1712. "A number of Newcomen engines were installed in Britain for draining higher to unworkable deep mines, with the engine of the surface; these were large machines, requiring a significant amount of capital to build, and produced upwards of 5hp (3.7 kW)".[23]

Although Savery engine power "*suffered of two major shortcomings which severely limited its practical utilisation the first defect was the restricted height of operation: the suction lift could raise water only to a height of 20 feet (about six meters). The second one was the high fuel consumption due to the need of recreating steam inside the vessel at each stroke*" [24]. In development the Newcomen engine fixed the first problem of his predecessor Savery which was the limited height of operation. "*The engine was constituted by a piston-cylinder arrangement connected with one hand of a rocking beam; the opposite end of the beam was connected with the mine pump rod. Steam was admitted from the boiler into the cylinder by means of a valve then a cold of jet of water was sprayed into the cylinder, condensing the steam. This created a partial vacuum inside of the cylinder so that the piston was pushed down by atmospheric pressure (the top of the cylinder was open), lifting the pump rod at the other end of the beam*"[25].

In addition, the Newcomen engine was strong, much more reliable and emphasized on a fairly mere working principal, for this reason his engines became quickly of widespread use in mining fields, but Newcomen engine also encountered two principal

[22] (D S. Landes 1969)
[23] (Ralph Winter Birrell 2015)
[24] (K. Frenken and A. Nuvolari 2003a)
[25] (K. Frenken and A. Nuvolari 2003b)

technical shortcomings. The first was the high fuel consumption and the second his limitation was the irregularity of its movement.

James Watt in the late of 1760s and early 1770s criticized the "high fuel consumption" problem of Newcomen engine. In the Watt engine (licenced in 1769) steam was transported in an isolate vessel and not in the cylinder, so re-heating the cylinder to each stroke was no need. Both of Watt and Newcomen's engines are constituted by a piston-cylinder arrangement related with a rocking beam, but for Watt contrary to Newcomen the piston is pressed down by the action of condensation and not by atmospheric pressure, a closed top of cylinder. After having pressed down the piston, the steam is allowed by means of a system of valves into an isolate vessel condensed, by this system it economises much higher fuel than the engine of Newcomen.

The machines particularly for machining metal or shaping, normally by shearing, cutting, grinding or other shapes of deformation, in the early of Industrial Revolution the entire machinery practically made of wood, but later in 1775 that the British John Wilkinson made a precision machine for boring "engine cylinders" and his invention rescued James Wall who was trying for several years to get an accurate bored cylinder for his first engine, and then years after other inventions came such as Henry Maudslay, Joseph whitworth and James Nasmyth who made machinery more accurate again over 1830s.

"*Industrialization led to the creation of the factory, the factory system contributed to the growth of urban areas, as large numbers of workers migrated into the cities in search of work in the factories. Newcomen was this better illustrated than the mills and associated industries of Manchester, nicknamed "cottonopolis", and world's first industrial city, Manchester experienced a number of increasing in its population between 1771 and 1831*".[26]

However, the increase of population occurred due to the industrial revolution but it had an impact on surviving childhood. There was not good opportunity for children education as they were expected to work, also in the factory the children were paid less than adults while their productivity was the same as adults. Employers did not care about strengthen for an industrial machine to be operated, and as the new industrial system, there were no need of adult labourers. This permitted child labour to be the first choice of

[26] (Omer Irfan 2016)

for manufacturing 100% focusing in the early stage of the industrial revolution from 18th to 19th century. Furthermore, those children were forced to work for very lower wages than their elders, and also in very bad conditions, working for long hours from 4am until 5pm daily in dangerous condition, at this time a child woke up earlier in the morning to work but in the mind of children they might die or loose a part of the body before the end of work or sunshine, it remained stand up until when the politicians and government took their responsibility to avoid children of any working.

1.2.2 INDUSTRY 2.0: MARKETING APPLICATIONS AND INDUSTRY DEVELOPMENT:

Marketing applications:

Marketing principals still had not been appeared much in the beginning of industry 2.0. firms distributed and their products to regional and local markets with lower prices of goods due to development in industry especially transportation field[27]. Because of development of transportation means like motorcars, airplane, truck etc., consumers got access to the products and services[28]. Service offerings started to appear in that period by corporation organizers in financial investment field and they collected money by selling company services at that time. But the later companies focused on trustees, they want their stocks to be trustful towards stock buyers. "If a trust gains an exceptional control of an industry, a company holds complete control over the price and quality of the product"[29].

Companies communications were doing by the help of telegraph invention that allowed them to reach their businesses, newspapers and government[30]. Mass production strategy was still being applied industry 2.0 by companies in order to make more market

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[27] (H. Mohajan 2019a)

[28] (Gordon, R. J. 2012)

[29] (Alef, D. 2009)

[30] (Richard, J. 2010).

shares from consumers and to decrease production costs, with invention of electricity company productivity increased, so they were able to produce a necessity amount as they want[31]. It is to notice that firms made development at that time was a pure exploitation of human being. Companies know that those workers did not had choice in order to feed their family. So, they work for lower wages to enrich firms.

Development of industry 2.0

After the first industrial revolution which ended up in the middle of 19th century, it was accentuated by a decline in relevant inventions before the second industrial revolution in 1870. However, this second industrial revolution in other words called the technological revolution; was a stage of rapid industrialisation from the late 19th century into the early 20th century, cities modernised and also people's lives regulated from the sun to the clock. Though many of its characteristic events can be discovered to earlier innovations in manufacturing as the "*rapid advances in the creation of steel, chemicals and electricity helped fuel production, including mass-produced consumer goods and weapons, it became far easier to get around on trains, automobiles and bicycles. At the same time, ideas and news spread via newspapers, the radio and telegraph, life got a whole lot faster*" [32]. Furthermore, collaboration between iron and steel, railroads and coal developed in the early of the second industrial revolution due to the cheaper railroad transportation of materials and products which caused in turn the rails cheaper to construct roads. The cheaper coal also allowed benefits to the railroads for their vapour locomotives no doubt this collaboration or synergy connected the hugest track in world history in the United States for 75.000 miles.

"T*he second Industrial Revolution turned the large technological system from an exception to a commonplace. Systems required a great deal of coordination that free markets did not always find easy to supply, and hence governments or other leading institutions ended stepping in to determine railroad gauges, electricity voltages, the layout of typewriter keyboards, rules of the road, and other forms of standardization. The notion that technology consisted of separate components that could be optimized individually -- never quite true -- became less and less appropriate after 1870*"[33].

[31] (H. Mohajan 2019b)
[32] (E. Niiler 2019)
[33] (J. Mokyr 2019)

Although, the result of production technology change; was the development of technological systems[34]. In this revolution by which individuals discovered a lot of things and made plenty of inventions, the paper explains some inventions in industry and technology below.

In the chemical field, "Synthetic dye" was funded by English chemist "William Henry Perkin" in 1856, chemistry at the time, was still in a very ancient state; and was still an arduous proposal to determine the arrangement of the elements in mixtures and chemical industry was newest at the time. "Perkin's accidental discovery was that aniline could be partly transformed into a crude mixture which when extracted with alcohol produced a substance with an instance purple colour, he scaled up production of the new "mauveine", and commercialized it as the world's first synthetic dye"[35].

Electricity was one of the principal sources of moving ahead and progressing in the second industrial revolution, this electricity idea of scientists was just mere experiments, it was not in their intention to make big inventions, but it exceeded them and became revolutionary to improving the daily life of people. After discovering by Faraday then Edison and Swan emphasized and worked on their lightbulb design to become practical later for home use. Furthermore, in the 1870s to the advent of the first efficient "commercial electrical generations" that made it public electricity. However, "Swan took his incandescent lightbulbs to England. The English used Swan's lightbulb to light Mosley Street in Newcastle upon tyne. So, this was the first electrical street lighting installation in the world. Then, Swan gifted the Savoy Theatre in London with 1200 of his lightbulbs, thus making it the first public building to be lit entirely by electricity" Richmond Vale (2019). After setting the power station at Mosley and Savoy theatre or Holborn Viaduct in London and the Peart street in New York. Later, Sebastian de Ferranti thought to retire "high voltage" alternating current, his idea permitted the "Assembly line" and "Mass protection".

Alexander Graham Bell is known for the inventor of the first practical telephone, and was the first to get a licence, in 1876, for an "apparatus to transmit vocal or other sounds telegraphically", following experimenting with many antique transmitters and

[34] (Hughes 1983, 1987)

[35] (W H. Perkin 2013)

receivers. The telephone transmitter of Bell consisted of two electromagnets which transported a rectangular piece of soft iron cemented to its middle, it remained at this state with some components until Bell made again the first long-distance telephone in the same year 1876. This innovation developed the separation of homes and businesses especially the separation home side while women occupies the private sphere, and the public sphere for men, this would carry on separating women and the home. At the time the common users of the telephone were women which enabled them to work as receptionists and operators within telecommunications sector. Women played an important role for developing new relationships, although social relations are crucial of reaching and usage of telephone networks.

"*Transportation capabilities ware shocked above all by the ability of people to conquer the air. For decades it was unclear whether or not that achievement would be attained through machines lighter than air, such as Zeppelins, and before K. Hawk (1903) many serious scientists doubled those machines heavier than air could ever fly*"[36]. On the other side, ocean shipping was the preferable form of transport and most relevant efficiently, frequently due to the size of ships and impressive design thanks to steel. In 1914 the sailing ships appeared, for businesses the principal source of long-distance mobility, but accessible for the rich people that was replaced by the giants.

During the period of technological revolution people assisted the biggest increase in economic growth than ever before even more than the first industrial revolution, lifestyles improved remarkably in the modern industrialised countries, the price of goods decreased significantly due to the mass production. This created unemployment and great disruptions in commerce and industry, with various labourers of being exhibited by machines and many factories, ships and other shapes of fixed capital becoming outdated in a very short time duration[37].

[36] (J. Mokyr 2019b)
[37] (W. David A 1890)

1.2.3 INDUSTRY 3.0: MARKETING APPLICATIONS AND INDUSYTRY DEVELOPMENT:

Marketing applications:

Marketing concept era was started in industry 3.0 as the period is known for age of information and development of robotics and computers. The concept of marketing is considered as a "philosophical orientation" with objective to identify and meet the needs of target markets that are the goals of organizations[38]. Although marketing concept and selling are complementary. Peter Drucker gave explanation about this complementarity the change from "selling concept" to the "marketing concept" when he said "The aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product or service fits her and sells itself[39]". After the advent of services in industry 2.0, the demand of services increased in industry 3.0 specifically in 1970s and society was recognized by leaders as "marketing stakeholder"[40]. The output of this was "societal marketing concept" and various related marketing notions such as, "cause marketing, cause related marketing, corporate philanthropy, corporate social responsibility (CSR), and social marketing itself"[41].

Philip Kotler defended the change to the societal marketing concept by claiming that organizations have task to detect the needs, wants and interests of targeted markets and to provide more effective and efficient of satisfactions than any other competitors in a good manner to preserve and enhance society and consumer' well-being[42]. They later evoked the "holistic marketing concept" to better understand priorities that includes: "relationship marketing, integrated marketing, internal marketing, and performance marketing".

[38] (T. L. Tuten 2019a)
[39] (Drucker 1973)
[40] (T. L. Tuten 2019b)
[41] (P. Kotler & N. Lee 2005)
[42] (P. Kotler & K. Keller 2015)

Development of industry 3.0:

The third industrial revolution also known by the digital revolution and there is a little similarity to the fourth industrial revolution. However, the digital revolution is conducted by the shift from mechanical and analogue electronic technology to digital electronics or digital technologies which caused the proliferation of big amount and adoption of digital computers was accessible until nowadays. So far, this revolution registered many inventions and innovations like, "the automation of production, consumer electronics, information and communications technology and the Internet". The third industrial revolution is global as well as it is local to the term 'Glocal'. It is changing the way people work, produce, entertain and also changing the way of managing cities and regions. "*As manufacturing goes digital, a third great change is now gathering pace, it will allow things to be made economically in much smaller numbers, more flexible and with a much lower input of labour, thanks to the new materials, completely new processes such as 3D printing, easy-to-use robots and new collaborative manufacturing services available online. The wheel is almost coming full circle, turning away from mass manufacturing and towards much more individualised production. And that in turn could bring some of the jobs back to rich countries that long ago lost them to be emerging world*"[43].

The third industrial revolution also registered improvements in digital world, it happened over the half of 19th century with amazing inventions and innovations such as, home computers, digital camera, public accessibility of world wide web, internet and smart phones.

However, home computer today as Desktop computer has been launched in 1970s with many other inventions like video game console, the first coin-op games and so on. However, consumers use it for word processing, doing homework and programming, and to play also the video games. The computer became the familiar machine in developed nations in 1980 and embedded into schools, businesses, industry etc, home computer was appreciated by people and was purchased by millions of people, the early personal computer manufacturers such as Apple, Commodore, and Tandy. Then by 1984 the expansion of computers became large especially in developed nations, already many

[43] (Markillie (2019), "The third Industrial Revolution: Implications of Planning Cities and Regions" by B. H Roberts)

households of United States with children under the age of 18 possessed, and leading businesses to depend on it and digital technology.

The World Wide Web (www) has been created by Tim Berners-Lee in 1989, but was publicly accessible in 1991 and originally conceived and developed to meet the demand for automated-sharing between scientists in universities and industry around the world. And "In 1993 M. Andreessen and E. Bina, created Mosaic, the first web browser is able to showing inline images, and the base for later browsers like Netscape and "internet explorer "[44].

The Internet has been created and evolved enormously just before the beginning of the 2000s which led to cell phone development too. People adapted quickly to the internet because of its advantages doing everything online supress Nations boundary, getting quick information, studying online and working online. However, the internet usage reached 2 billion people in 2010 against 1 billion in 2007; these numbers show the quick adaption and easy access over internet by consumers.

Although the first smartphone invention back to Nokia in 1996, and later with Ericsson in the late of 1999, although they knew some changes about the types of smartphone. However, the development succeeded one after another until BlackBerry made its first appearance and was known by the term "CrackBerry" in 2006. And in 2007 Steve Jobs presented Apple device 'Ipod' from that registered success again and again with Google's Android until nowadays.

1.2.4 INDUSTRY 4.0: MARKETING APPLICATIONS AND INDUSTRY DEVELOPMENT

Marketing applications:

Technological innovations and social responsibility initiatives revolutionized marketing in industry 4.0. According to the recent researches, this technological development (robotics, cloud computing, Internet of things (IoT), big data etc.,) have great potential to boost performances[45]. During this revolution that 'convergence marketing' era entered and applied by organizations which is the fusion of technological devices to create new

[44] (D. Belshaw, 2014).
[45] (Yeo, N.C.Y. Pepin, H. and Yang, S.S. 2017).

offers, this convergence of products led to "industry-level innovation"[46]. New technologies are considered by industry 4.0 with a goal to integrate humans and machines through the boundaries of organizations to make new types of value chain networked[47]. Speaking of integration, "Firms implement a three-types of integrations: horizontal, vertical and end-to-end integration, which allow them to improve the efficiency of production processes and maximize the customization of products"[48].

The relevant asset of this industry 4.0 is customization that brings the ideas of B2C and B2B together, the idea for firms is to getting closer to their customers and interpreting needs via the full engagement and involvement of customers at the products development processes[49]. The relationships of seller-buyer are changing by the respect this, both in B2B or B2C markets. Stressing also ability of companies to respond to the customer desires rapidly[50].

Some European firms believe in the industry 4.0 as a relevant way to increase the competitiveness[51]. This industry 4.0 is even considered as "market-driven technologies" to help firms to increase the quality of relationships with the customers[52]. Firms are also improving their capacity to understand consumer needs with the help of factors invented in industry 4.0 like IoT, Big data or Cloud computing[53].

Development of industry 4.0:

The fourth industrial revolution is the actual emerging environment in which innovative technologies and trends like the internet of things (iot), robotics, virtual reality (VR) and Artificial Intelligence (AI) are completely changing the work and living situation of people[54]. This revolution represents a basic change in the way people live, work and relate to one another, it is a new step in human development, allowed by remarkable technology advances corresponding with the first two of industrial revolution, it is different from the third industrial revolution by two reasons: the interval between the digital, physical and

[46] (Mantera & Sundararajan 2002).
[47] (M. Bettiol, M. Capestro & E. di Maria 2017a).
[48] (Weller, C., Kleern, R. and Piller, F.T. 2015).
[49] (M. Bettiol, M. Capestro & E. di Maria 2017b).
[50] (Obal, M. and Lancioni, R.A. 2013).
[51] (Bottoncini, A., Pasetto, A. and Rotondi, Z. 2016).
[52] (M. Bettiol, E. Di Maria & M. Capestro 2017c).
[53] (Porter, M. and Heppelmann, J. 2015).
[54] (M. Rouse 2017).

biological worlds is getting smaller, and technology is changing rapidly than ever before.

Therefore, the internet of things is one of the elements and trends of the fourth industrial revolution that people using them "*the internet of things, IoT is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifies (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction*"[55]. The definition of this latter has developed due to the confluence of multiple technologies, "real-time analytics, machine learning, commodity sensors, and embedded systems" in the consumer market. IoT technology is most compatible with products related to the notions of the 'smart home', concealing devices and appliances such as "lighting fixtures, thermostats, home security systems and cameras, and other home appliances" that bear one or more familial ecosystems, and can be controlled through devices related to that ecosystem, like "smartphones" and "smart speakers". However, progressively companies in the different type of industries are using IoT to manage more efficiently, to understand well customers to provide better customer service, ameliorate decision-making and improve the value of the business.

Moreover, Kevin Ashton, co-founder of the Auto-ID centre at MI, who first introduced the term internet of things in his speech in Proctor & Gamble (P/G) in 1999, wanting to bring Radio frequency ID (RFID) in observation of P&G's senior management, he called the presentations "Internet of Things" to include the new fresh trend of 1999: The Internet[56]. Also, in the same year 1999 the professor Neil Gershenfeld of MIT with the book named 'when things start to think' he did not utilize the exact term as Ashton but his vision was clear of where IoT was headed. IoT has emerged from the confluence of "wireless technologies, microelectromechanical systems (MEMS), micro services and the internet". The confluence has helped decimate the silos between "operational technology" (IoT) and "information technology" (IT), to permit unstructured "machine-generated data" to be examined for insights to manage improvements, then IoT advanced from "machine-to-machine" (M2M) communication, the connectivity of machines to each other through a network and no human interaction, this M2M connects devices to the cloud, running them and collecting data, taking M2M to the next step,

[55] (M. Rouse 2019)
[56] (M. Rouse 2019)

people are connected by billions of smart devices due to the IoT sensor network, it connects also systems and other applications to gather and share data.

"A growing portion of IoT devices are created for consumer use, including connected vehicles, home automation, wearable technology, connected health, and appliances with remote monitoring capabilities"[57].

IoT devices are aside of the immense concept of home automation, which involves lighting, making hot and air conditioning, media and systems for security, it is long-term advantages that could comprise energy savings via automatically securing lights and electronics are turned off. A smart home could be based on platforms that can control smart devices and "appliances". For example, using "Apple Homekit", manufacturers can get their home products and accessories managed by an application in iOS machines like "Iphone" and the "Apple watch" in the hand of customers. It could be a devoted app or iOS native application like Siri; and essentials smart home of Lenovo known for its smart home devices line are controlled via "Apple's Home app" or Siri and no need of Wi-Fi connection. "*There are also dedicated smart home hubs that are offered as standalone platforms to connect different smart home products and these include Amazon Echo, Google Home, Apple's Home Pod, and Samsung's Smart Things Hub*"[58].

However, one crucial application of a smart home is to assist people who are not able and have no background of using it and elderly people. These home systems use advantageous technology to help an owner's particular disabilities. "Voice control" can help customers or users with vision and mobility limitations, at the same time alert systems can be connected automatically to "cochlear implants" alerted by "hearing-impaired users". Home automation technology applied likewise allows customers or users to feel free and a higher life quality. However, companies invented smart devices and still inventing the new wearable devices as the world's internet use is growing faster. And consumers are 100% motivating about savings, safety, convenience and control of these devices, but the thing is, they cannot afford of buying them because the price is much higher too expensive especially for the countries under development like some provinces in Asia, Africa and in America Latinos[59].

[57] (Akilandeshwari. K, Mohanapriya. S, Sandhyia Sri. R 2019).
[58] (P. Mike 2018)
[59] (Consumers İnternational 2017a)

The demand of this latter has grown by customers who require connected cars from multiple manufacturers such as; Renault-Nissan, BMW, and Volvo to benefit the advantages of the system that allows consumers the voice-controlled Media, predictive maintenance and driver assist, although in the market of connected cars Chinese population are set to become a strong consumer market[60]. As consumers are becoming progressively tech savvy and the government also is supporting them in order to develop the connectivity of cars of Chinese population or consumers.

Although consumer attitudes over internet of things, in today's world it is evident that consumers are worry about connected objects in facts that for some of them; there are no tangible benefits to the objects. They are also concerned about the privacy since with the advent of the system, nobody's privacy life is much hidden anymore; plus, the security issues that is very important in human life. However, the notion of 'safety' generally and specific sector product safety legislation is large and covers cybersecurity, "data security", "personal safety" and "product safety"[61]. To add, consumers truly have concerns with the safety of "digital technologies" like driverless cars or smart home devices.

Furthermore, there exist some key challenges to consumers that were aggravated by the internet of things like, lack of security, privacy violations are occurring et, as the paper indicated above. Moreover, consumers are not informed at all, sometimes consumers ignore totally how their personal information was gathered, used and revealed by their devices, and no explanations how information was stored, consumers' devices fail explaining how they could supress their information from the device. No identifiable contact details for customers for their privacy concerns on their devices. "In addition, connected devices might process the data of others who are indirectly observed and recorded by other people's devices such as visitors to a connected home or passengers in a smart car"[62].

Finally, already in the United States the National Telecommunications and Information Administration (NTIA) is doing its best to improve security in connected devices for consumers, also the Federal Trade Commission (FTC) in relation to consumer

[60] (Consumers International 2017b)
[61] (Consumers International 2017c)
[62] (Consumers International 2017d)

protection to set out important elements that manufacturers should include and consider while producing for consumers' protection.

Consumer robots have been part of favoured culture for decennaries, powering visions of having robots living with humans to assist them in their homes with daily tasks, entertain, educate, and socialize[63]. However, the potential of consumer robotics is known unsuccessful over consumers. Although, "clearing robotics" and "robotics vacuums" dominate clearly the market and the universal adoption of the robot categories dates back years by which individuals have envisioned sharing their homes, now companies made much renewal in consumer robotics; they are introducing better innovations and product types. They are also using Artificial Intelligence (AI) to render robots smarter and maximize their capacities during the integration with other smart home devices, and as long as technology is developing the consumer robotics also grows.

Virtual Reality (VR) also called virtual environments, refers to the "new interfaces" to create a three-dimensional World effect by help of computers and human-computer, within which the direct interaction between user and virtual objects is feasible[64]. However, people or consumers seem appreciate the virtual reality, because everywhere in virtual reality experiencing shop, there is always crowd of people who want to experience of this technology innovation in the fourth industrial revolution. This Virtual Reality is very important and appealing to young people like generation Z or alpha generation and millennials have tendency to move towards the gaming applications of virtual reality technology. Briefly, it is experiencing by all generations like generation X even the Baby boomers the oldest people, contrary to the young generations they move to the exploration and travel-based experiences that virtual reality creates. Moreover, virtual reality has a great potential with young millennials and quick adoption to this technology[65]. Millennials and generation Z, the evident potential customer base due to their early adaptiveness, perfect control of technology and are already involved in the kinds of activities that virtual reality will first leverage, and the parents of generation Z they are also generally favourable towards virtual reality and experiencing with their children.

[63] (Tractica 2019)
[64] (S. Bryson 1996)
[65] (Touchstoneresearch 2019)

Artificial Intelligence is a computer science era that empowers the creation of intelligent machines react and working like humans[66]. Nowadays, Artificial Intelligence is growing rapidly and executing in several sectors like healthcare, agricultural, commercial and alike. However, the positive customers are hurried up to embrace the benefits of artificial intelligence and see what it promises for the future while other consumers are worried about it and most of them prefer the familiarity of human touch rather than artificial intelligence or faceless machine, this type of consumers are negative consumers. There are also consumers who do not understand this new technology they try but they could not. So, companies must take their responsibilities to transform them into positive consumers with the fair advanced artificial intelligence market value.

CHAPTER II: DIGITAL MARKETING

2.1 DEFINITION OF DIGITAL MARKETING

Digital marketing surrounding marketing actions using technology devices or “internet”. Companies are leveraging multiple digital channels to be connected to the actual and potential customers, identifying them where they snail much more online. These digital channels are platforms that permit company to meet online transactions to build relationships and keeping customers; platforms like “e-mail, Apps, websites and social networks”. They are also used for goals in supporting to attract new customers and furnishing good service quality to the customers already belonged to the company so that to improve "customer relationship" by "E-CRM" and "Marketing automation". Although the power of digital marketing is immense than traditional one by creating a website that allows the brands to understand web visitors when they click on the website it is also less expensive, it is necessary for companies integrating platforms with traditional techniques for the success of the business. “The use of digital technologies to create an integrated,

[66] (M. Rouse 2019).

targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them"[67].

Furthermore, the definition of P. Kotler and Armstrong said that "*digital marketing is a form of direct marketing which links consumers with sellers electrically using interactive technologies like emails, websites, online platforms and newsgroups, interactive television, mobile communications etcetera*"[68]. This definition matches well the previous definition where all of them agreed that digital marketing is a tie to connect a company with customers via internet or other electric devices to fully identify clients or prospects anticipating and responding to their expectations then converting them to the loyal customers.

Digital marketing allows also the fact that company and consumers are connected, it renders easy the communication of this connectivity and that company will never miss time promoting products or services to reasonable cost. İt permits to make communication easier between huge amount of people because of its high level of connectivity and is generally put to support products or services in a timely, personal and cost-effective[69].

These are some definitions of digital marketing as it is a broad concept, but roughly all definitions go straight to the one direction which is the connectivity company to customers.

For example, in 2013, Turkish airlines did an add bringing the two "greatest stars" Kobe Brayant and Lionel Messi, they were making "shootout selfies"; Kobe travelled to a country making a selfie with "Lion" and then sent it to Messi. And Messi also did the same travelled to another country making a selfie with "Monkey" and sent it to Brayant. But the remark point is that during all of their travel they were traveling in Turkish Airlines because the objectives of the company were to increase the brand awareness around the globe and attracting new potential customers through social media tool YouTube. The strategy worked successfully in only one week it reached 77 million views on YouTube in every continent and it became among the fastest increasing commercials on YouTube and considered as one of the most favoured ads in 2013.[70]

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[67] (Smith, K. 2007, October 5)
[68] (Kotler and Armstrong 2009)
[69] (Bains et al 2011)
[70] (S. Nigam 2013)

2.2 DIGITAL MARKETING HISTORY

The evolvement of digital marketing cannot be separated from the advancement of technology; since 1971 "Ray Tomlinson" initiated and introduced the too first email and the technology, he was using comprises platforms so that people can send files and vice versa at the same time.

In the 1980s, companies were already able to store large amounts of customer data, with enough capacity of computer storage, and companies preferred more to use "Database marketing" to the small "list broker" which enabled for companies collect customers information and to transform seller-buyer relationship, the procedure was not manually efficient enough, "However, the more recognizable period as being the start of digital marketing in the 1990s as this was where the Archie search engine was created as an Index for F.T.P sites"[71].

By the 2000s, due to the proliferation of internet users around the world roughly 558 million people were connected to the internet, customers behaviour changed completely; they search for the product and first they make comparison of different offers then decide to purchase the goods or services by using search engine Google or others, rather than visiting stores or meeting salesperson, this reaction was dilemma that marketing department was facing[72]. Besides, in 2000 a survey has been conducted in the United Kingdom and most retailers have not registered their field address[73]. Because of this customer behaviour has changed, and some companies opted for digital solutions for the development of the market, by the "marketing automation" and "deliver personalized content".

It is very important to provide some popular social media platforms used frequently by people according to S. Tiwari:

- LinkedIn has been invented in May 2003
- Facebook in February 2004
- Yahoo! 360° in March 2005
- Twitter launched in July 2006

[71] (P. Vashishtha, A. Sharma and A. Lall 2018)
[72] (V. Desai 2019)
[73] (Har, Cathy, Doherty, N. Ellis- Chadwik, Fiona 2000)

Furthermore, during 2010, consumers shifted from "tech-savvy" to "tech-dependent" with which most people spent almost 12 hours on the internet[74]. This caused a change in consumer behaviour and expanded the "marketing technology" with increasing digital expectations of consumers, and when the development of device capacity to access “digital media” caused a huge growth, digital marketing has been sophisticated than ever from the 2000s to 2010s. Statistics indicated that “online marketing” was still be growing, therefore, since that time consumers were more dependent on their everyday lives. They were expecting absolute "user experience" through multiple channels looking for information about products. Marketing technology variegation has been improved by the change of customer behaviour[75]. Nevertheless, new companies are struggling, developing every day in order of priority to offer online marketing solutions to the loyal customers, while grand companies such as "Google, IBM, Oracle" are gripping young companies to be always ahead in the top of competition providing greatest online marketing solutions. Nowadays, marketers are finding themselves in the face of various options and deciding which option to invest to raise the challenge, honestly, they are in full confusion. Although, integration became the characteristics of "marketing technology" attracting more. But integration is not enough to marketers because they still got some problems like the fitness of technologies with their business goals, and the way to focus on customers instead of tools[76]. The term digital marketing can also be named as “online marketing”, “internet marketing” and “web marketing”, but the most common term used in the USA is “online marketing” and “web marketing” in Italy as the frequent term utilized. Digital marketing worldwide started to be the frequent term, and more again after the year 2013[77]. However, the increase of social media was predicted at 4.5 trillion digital ads performed annually, and 48% increase of "digital media" spend according to "International Chamber Commerce".

[74] (S. Tiwari 2018a)
[75] (N. Global 2018)
[76] (S. Tiwari 2018b)
[77] (M. Johnsen 2017)

2.3 DIGITAL MARKETING CHANNELS

Digital marketing channels are everything to bring the product or service of a brand to the targeted audiences of that company, as it is 100% clear that the accessibility of so many people around the world to everyday online services[78]. However, the channel choice for business or brand depends upon several elements. Earliest, the most prominent is the necessity to understand the very important "digital marketing channels" and platform for the brand or business itself to be upon like business to business or business to customers brand, it will not be necessary to opt for all "social media platforms" it does not match[79]. LinkedIn can be a great example of it. So, brands or business must know where the majority of their target group snail upon frequently on which "social media platform". This supports brands getting the fundamental acceptable platforms. Moreover, the best digital marketing channel choice depends also on the objectives of business or brand. For example, as a business to business brand the objective is clear which is to create leads for its business, it is logic to utilize business pivotal platforms that support brand or business to achieve its goal, creating leads.

Coke for example has invented a famous YouTube mechanism in Europe, in intention to work with famous YouTube bloggers bringing its "CokeTV channel" to some countries like, "Germany, UK, France, and Spain" with goals targeting young people (millennials and alpha generation) and engaging them with veritable "eye-level" transmissions[80]. As Germany has been cited among its target countries, Coca-cola first introduced its CokeTV in Germany since 2014. That has affected Germany population attracting them to subscribe roughly 268,000 people as subscribers, also 29million people who viewed which made it among the best prosperous "brand channels" in the county[81].

In the UK, it selected the two stars of YouTube who are "Manny and Dodie" in which, with every episode, they focus on young people's activities such as enjoyment and "passions" like "gaming, sports, and music". [82]Coca-cola marketing director in Great Britain, explained the beauty of CokeTV which puts the Coca-Cola age group, considering their interests and communicate to them in their language weekly. He added

[78] (S. Porter 2016a)
[79] (S. Porter 2016b)
[80] (Robin 2016a)
[81] (Robin 2016b)
[82] (B. Britain 2016)

that, this is going to be the most integrated platform to attain the youth in GB & Ireland, make them enjoyed with original and interesting content, in the way especially provided by Coke, this content marketing "Coke TV channel" of drinks producer achieved well its goals teen engagement, by utilizing the principal platform that is YouTube.

Explanation of different digital marketing channels: the following is the explanation of each channel that brands or businesses use to reach their audiences online.

Email marketing can be defined as a powerful manner to erect and keep affinity with new customers and preserve connectivity with existing clients, with the advancement of prospects by the sales pipe. Brands or businesses are now able to emphasize on supporting these prospects to solve particular issues and attain special goals, instead of propelling them suddenly in the direction of sales. However, some brands send an "email newsletter" once a week or monthly to maintain their commercial actively priority and customers or prospects will pay attention to them at the moment when they feel ready to purchase.

Pay per click advertising is used boost brand awareness and at the lower costs, pay-per-click is a marketing channel that advertisers opt for generally, they only pay when the network user clicks on their ads rather than paying by feelings and entirely for add position[83]. This PPC is frequently connected with top-level "search engines" like "Google AdWords", by the search engine marketers regularly focus on important phrases of the keyword to the "target market"[84]. Nevertheless, this advertising system is being abused by the bad intended people, "Abuse clickers" or competitor, though, automatic methods have been executed by Google and other search engines to keep it safe from the abusive clicks of competitors or dishonest web developers[85].

An example from Apple which is considered as one of the biggest technology companies around the world, although, the company is running ad to remember customers, keeping up the brand in their mind and staying at the top of the rank. It bids on its keywords while advertising, for example, Apple uses the brand name of the latest product out as the headline of ads showing that the offer is from Apple's official site and

[83] (H. S. Karim & A. A. Alkarablieh 2015)
[84] (Jerkovic John, I. 2009)
[85] (L. Kinsella 2011)

not from mobile phone retailers. This strategy of doing ads will ensure and attract customers to purchase products also to decrease of being deceived. Furthermore, at the beginning of ad after headline starts; the ad of Apple provides the value propositions, about some characteristics of products alike “all-new portrait mode” and announcing the price with payment possibility such as (the possibility to pay monthly) which has always been a great idea with vivacity of ad it turns the benefits from products to the Apple store purchasing benefits, then its ad lists attribute are like “personal setup”, “free next-day delivery” and “financing available” as researchers of the newest product of Apple, these may motive their stimuli[86].

Moreover, after presenting different benefits and characteristics the ad ends by naming some “action buttons” such as “buy now, switch to iPhone, trade your iPhone", to persuade low-income customers to purchase a complete product.

Search engine optimization is commonly known for SEO, is the skills and knowledge of obtaining "websites" or particular "web pages" to appear upon search engine such as (Google, Bing etc…) when typed precise keywords like search terms. It is the set of procedures to improve the website traffic both quantity and quality via development of website visibility or a web search engine web page to users. There are plenty of different research the SEO is capable to target them such as “image research, video research, academic research” a like[87]. Therefore, to ameliorate website editing and add the content of this website, adjusting “HTML” and related encoding to the both, evolving more its importance to the particular keywords and detaching obstacles to “indexing activities of search engines”.

As an example, "Travel homepage SEO"; ‘cheapest flights’ is a keyword when typed on search engine 323,000,000 results show up, and the PPC of this keyword is roughly 1,45 Dollar. However, to be number 1 in the rank may bring so many things. As did Kayak in the category of flight aggregation, it used the same keyword optimizing its homepage, it is the first brand that has appeared when researchers type the keyword on the engine. This is the strategy that allows brands to get the chance of their product to be

[86] (J. Hardwick 2020)
[87] (S. Haynie 2020)

sold because researchers generally look the research page from the top to the bottom and more often their choice is the top one, as some researchers are sometimes hurrying to see what the page content promises. This channel is one of the most important digital marketing channels.

Display advertising channels include drawing graphical adverts and putting them alongside the content as "websites, search engines, Apps, emails" in digital formats such as "Videos, Images, GIFs, and Infographics". Display ads support promoting the upcoming products, improve online existence, interacting customers to aid driving leads and growing "brand awareness". It is essential to attract the attention of unsuspicious readers, though the ads can be composed of "text, images, audio, or video clips, animation" etc., to add, ads appear suddenly while reading online, watching video or gaming for 15 seconds maximum, and then disappear. It occurs on websites or in Apps that customers love using them or on what customers work frequently, to attract their attention to a product or service. Marketers can avail advantages by using this channel as he said *"it is extremely targeted, marketers pay only for relevant impressions received, it allows to choose from a large number of advertising options, they may target ads according to customer behaviour, demographics or geographic location, it creates brand awareness as well as highly targeted traffic that may convert into leads or sales, track everything from numbers reached, clicks, actions and conversion ratios, it is easy to manage budgets*[88] *".*

For example, Adobe is an international "computer software-company" in America, creativity, design photos, and photo-shops make a company so special across the world. Adobe is ready than ever and capable of incorporate all of these elements into its banner ads; Anyway, it is the case when they make display ads, beautiful creativity, remarkable, incredible photos and design, an unbelievable photo-shop that attracts well attention of online users[89]. That is not all, while advertising they also use messages the urgent words to accompany these beautiful creativities. These words invite users to click on ads, words such as "GET 10 FREE" or "TAKE IT/MAKE IT" which make ads easy and effective[90]. Adobe does not play with its logo. This is truly logic, in each single “banner ad” the brand place logo in the top left or right angle of “display ad”.

[88] (K. Taylor 2018)
[89] (R. Katai 2016a)
[90] (R. Katai 2016b)

Social media marketing has improved from being a simple digital channel to be accounted for as one of the most relevant "digital marketing tools" over companies. However, there are several forms of social media such as, Facebook, YouTube, LinkedIn that allowed customer interaction, sharing ideas to take part of conversations and joining in "real-time" which resulted of building huge "communities and networks" with erecting trust, reinforcing relationships of "existing customers" and motivating them, they may attract potential customers to the company by the simple share of brand materials. Moreover, the social media is also used to enable marketers promoting and marketing brands or business, this channel is also a way to get customer responses, their opinions, what they feel or perspectives about products or services, for marketers to improve the missing quality. The platform choice also depends upon the brand category, whether it is business to business or business to customer brand.

In consequence, many customers come back to social media to show their admiration or anger with company goods or services, for that reason; marketers can be able to measure the rate of what kind of customers are receiving the brand and determining whether their social media marketing strategies are more effective. To support, companies must do everything in their possibilities to keep up online presence assisting their customers to determine social media strategies indicated above and do not lose customer loyalty. Furthermore, clients did not get feedback at time from brands, the latest studies showed that 75% of people have been asked and expressed that they were waiting for a response on Twitter for an hour to their complains[91]. Like L'oreal, a cosmetic company in Clishy, France, but the US L'Oreal made an image and sharing it on its Instagram in 2014, in an image where employees were wearing Halloween uniform costume smiling, they were playing a game. However, L'Oreal served an Instagram platform to provide a message meaning that there is a full collaboration of employees within the organization and "this organizational transparency" no doubt will support brand attracting customers and with hiring, also keeping them. This was a fantastic strategy done by L'Oreal even has been adopted by other brands like (Google, Deloitte, etc.).

[91] (V. Pamela 2017)

Content marketing can be understood as one of the marketing approaches; where the main emphasis is to create, distribute important worth content to entice potential customers and maintain existing ones or determined audiences, and eventually to conduct beneficial customer activity[92]. Businesses often use this digital marketing channel for various goals, after customer attractiveness and retain them to[93]:

- Enlarge their client base
- Growing sales are done online
- Improve the popularity of brand or reliability
- Joining the internet community of customers

Content marketing is helpful for brands to build maintainable brand loyalty; it gives relevant information to customers and encourages their buying intention to buy goods from the brand for the coming days in the future. The principal focus of businesses should be on what customer or prospect needs while they are following content marketing and when consumers' needs are determined; therefore, various formats are available like, "Video, Infographics, e-books, podcasts, email newsletters," etc., to present information[94]. It is important for this digital marketing channel to modernize and add to, to influence customers' behaviour.

Red Bull got their own method to make good content marketing and promoting their brands to the consumers at the same time[95]. “Red Bull make emphasis on extreme lifestyle adventure as their content to attract the customers to explore more about their brands, for instance, they are the sponsorship for Stratos Jump and other sports”[96]. The strategy worked, because Red Bull has won roughly 1 billion of YouTube views and over 400 thousand as “referral links” to their content[97].

Affiliate marketing as an online marketing channel by which an owner (brand) of product grows sales by authorizing affiliate marketers to target identical audiences,----" affiliates "---- these affiliate marketers earn "commission" by counselling the goods to

[92] (S. Wilcox 2020)
[93] (K. Gravata 2019)
[94] (J. Steimle 2014)
[95] (N. S. Ahmada et al 2016a)
[96] (N. S. Ahmada et al 2016b)
[97] (Levy., L., March 22, 2015)

other people[98]. It is a great opportunity for affiliates to generate money on goods without any production from them. Affiliate marketing includes introducing a good or service through "blogs, social media platforms, or website"[99]. The commission is earned once somebody buys on the lonely link connected with their guidance. This marketing channel as defined by Kevin it is a kind of marketing result-oriented in which a business prizes of affiliates are provided in case of customer visits by the efforts of marketing affiliate.

Wire-cutter, the wire-cutter is "A New York Times Company" accounted as one of the famous “affiliate websites" for electronic devices, and consumer products. It has been launched by "Britain Lan" an ancient director at "Gizmodo" and put all discussed products through arduous and new tests[100]. Since from its creation date 2011, the brand has grown even been one the best online 6000 sites by continually emphasizing on obtaining the best offer in every class[101]. The wire-cutter earns money with affiliate commissions from Amazon, BestBuy, etc… but it does not receive advertisement at all or "sponsored posts" or selling its goods. Moreover, Wire-cutter utilizes a mere page with top items listed in every category, the tests of Wire-cutter are much fresh and large that producers demand it from time to time for guidance to ameliorate their products.

2.4 DIGITAL MARKETING SAMPLES OF BRANDS

Among the samples of digital marketing of brands, Starbucks started “community website” in 2008, known as “My Starbucks İdea”, in order to get feedback and suggestions from customers as a way to improve its service[102]. It introduced “Loyalty Program” in mid 2008 for the customers who are registered of the Starbucks card which allows them a prepaid advantage by a just click on “Please Join” at every shopping consumers will have chance to earn one star until 15th stars then the company offers them “Tall bay drink”, but each purchase the value should be equal or above 3.00 TL. In 2009 that the company presented its mobile app “Beta Testing” for registered customers of the Starbucks card to enable the facility of consumer approach “Pre-paid Fund” to purchase

[98] (M. Hayes 2019)
[99] (U. Kevin 2017)
[100] (S. Q. Ong 2020)
[101] (S. Q. Ong 2020b)
[102] (Sumair 2015a)

products. And to then present total mobile platform in the early 2011. With mobile devices via Starbucks app, over 10% of product sale done in July 2013, Seharawala & Karaduman (2015)[103].

At the end of 2013, Starbucks lunched the "Tweet-a-Coffee" campaign. One year after in September 2014, the company had merged the "Taxi-ordering program Uber" into its app. After it introduced a worldwide campaign "Meet me at Starbucks" which used an extensive range of digital channels like YouTube, Instagram, and Twitter, in order to strengthen the positive features of its global brand.

Email newsletters is an important part of digital marketing. Brand Lancôme of L'Oréal uses this strategy to keep on with its customers and more to reinforce their customer brand loyalty. "Airbnb is a company that fully embraced this Digital Marketing channel by allowing all users to share their travel experiences on all platforms and social media".

2.5 DIGITAL MARKETING AND RELATED FACTORS

Customer loyalty is a notion that has beneficiated from broad currency and utilisation within the consumer behaviour field for many years. Dick and Basu observed customer loyalty as the relationship strength between the relative attitude over an entity (brand, service, store, or vendor) and repeat patronage of an individual[104].

Loyalty is an optimistic belief, caused over the course of numerous interactions, in the utility that a company and its products or services offer, which conducts to carry on interactions and buys over time[105]. Due to the importance of customer loyalty, Bagdoniene & Jakštaite by citing numerous studies revealed that customer loyalty is the marketing efforts the most valuable result, in consequence, the emergence of customer loyalty became a relevant emphasise on marketing strategy[106]. Although, the word loyalty means an indication that the customer who always become the customer, and always got the strength and optimistic perception to the company, each customer got different fundamentals to the loyalty, but on their objectivity that it depends. Then customer loyalty is demonstrated by recommending other customers and keeping continuously the product

[103] (Sumair 2015b)
[104] (Dick & Basu 1994)
[105] (Oracle Corporation 2005)
[106] (Bagdoniene & Jakštaité 2017)

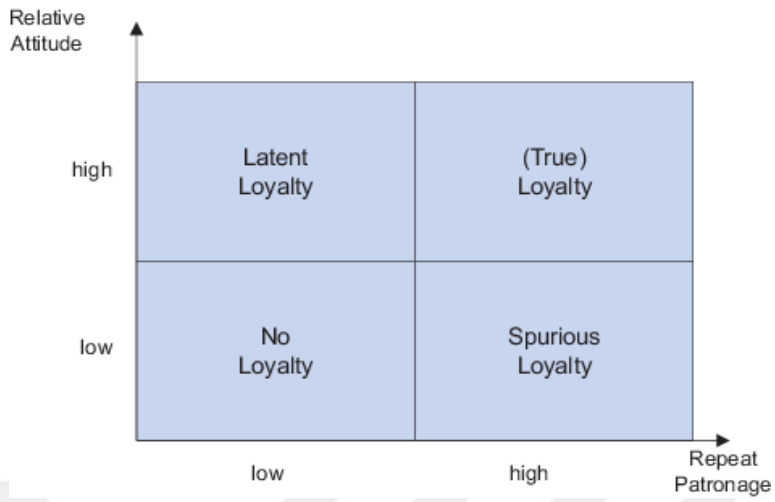
consumption[107]. He also added that this customer loyalty is the loyalty of somebody to the product, for things and as well as for services. The customer loyalty is a reaction and continuously the following of customer satisfaction after the ease of use and services that are provided by the company, all in keeping to become the company's customer.

Dharmanlingam et al agreed that it is more important to focus on existing customer before obtaining new ones, they explained the benefits of customer loyalty in three ways[108]:

- Loyal customer service cost is less than new ones.
- For a set of products, loyal customers are ready to pay higher costs.
- Loyal customer will play the role of word-of-mouth marketing agent for a company.

[107] (Suprihanti 2011).
[108] (Dharmalingam et al 2011).

Figure 2: Dynamic Model of Customer Loyalty



Source: Dick, A.S. and Basu, K "Customer Loyalty: Toward an integrated Conceptual Framework," *Journal of the Academy of Marketing Science*, Vol. 22, no. 2, 1994, p. 101.

Figure 2 above presents the degree of different loyalties, true loyalty tends to get high degree to repeat patronage with a high relative attitude, although latent loyalty may obtain high degree of relative attitude but to repeat patronage is low while spurious loyalty tends also to have a high degree of repeat patronage but with a low relative attitude, and the fourth type of loyalty has low degree in relative attitude and repeat patronage which is no loyalty.

For the **customer satisfaction**, according to Parker & Mathew, two principal explanations of satisfaction exist in the literature, satisfaction as procedure and satisfaction as a result[109]. The first notions of satisfaction research have commonly interpreted satisfaction as a judgement after a specific purchase decision about products or services[110]. Customers have a contact desire between their judgements object. In the more recent, an emphasised attention has been restarted on the nature of "Satisfaction /Emotion", accomplishment and condition[111].

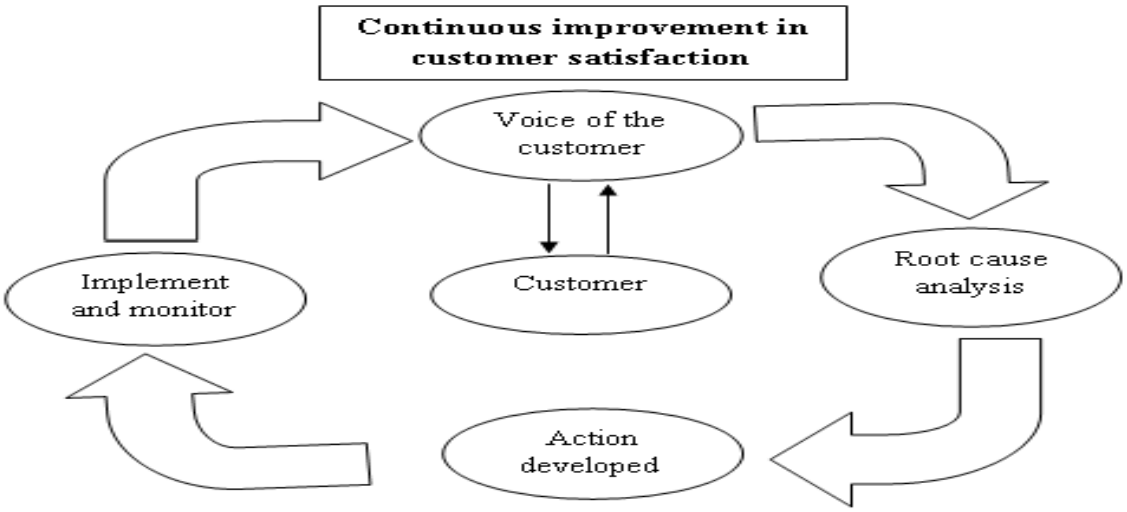
[109] (Parker & Mathew 2001)
[110] (Oliver, 1980; Churchill and Suprenant, 1992; Bearden and Teel, 1983; Oliver and De Sarbo, 1988)
[111] (Parker & Mathew 2011).

Thus, recent literature supports this viewpoint in two methods. First, despite the fact that traditional models completely agreed that customer satisfaction is basically the result of cognitive processes, new ideal evolutions propose that emotional processes may also associate essentially to the definition and customer satisfaction prediction[112]. Secondly, for Wilton & Nicosia in their viewpoint satisfaction should be considered as a discernment based on accumulative experience made about defined product or service rather than transaction-specified phenomenon[113]. This satisfaction discernment is connected to all experiences made with a definite transaction about its given products, the sales procedure, and the post-sale service.

The satisfied reaction post purchase depends also on the performance of offer relatively with expectation of customer. This satisfaction of customers is formed generally from experience of precedent buying, friends' and colleagues' advice, and information, promises of marketers and competitors[114]. Moreover, M. Zairi enhanced figure 3 Which demonstrates for the company to get ameliorating customer satisfaction continuously an essential cycle which begins with "listening to voice of customers then analysing their comments, developing actions and at the end of implementing"[115]. Figure 3 illustrates this cycle.

[112] (Fornell & Wernerfelt,1987; Westbrook, 1987; Westbrook & Oliver, 1991)
[113] (Wilton & Nicosia 1986).
[114] (Kotler 2009)
[115] (M. Zairi 2000)

Figure 3: Customer Satisfaction Continuous Improvement



Source: Zairi, 2000

To get a direct satisfaction first of all, the "Good working condition" is necessary to bring "Satisfied employees" which conducts to "Loyal employees" and in preparing all this, "Good production" could be followed, that is influenced on "Customer satisfaction" and transform them of being loyal and "high profit" is concerning "Customer retention" as mentioned previously[116].

[116] (R. Mostaghel 2006)

Figure 4: The Circle of Satisfaction

Source: Mostaghel, 2005

Intention to recommend: the word of mouth has played great importance role of intention to recommend in order to forecast the performance of brand[117]. Moreover, Keiningham et al & Pingitore et al agreed that intention to recommend is more reliable than customer satisfaction to predict the performance of brand[118]. Although there are two types of word of mouth, one online and another traditionally one to express the positive or negative feelings to others over brands or products.

However, Katz & Lazarsfeld in their book "Personal Influence" claiming that friendly personal advice affects much more than mass media advertising, and that these recommendations from customers are relevant and influence more than official advertisements[119]. It is obvious that the first researchers understood the potential of personal contacts and confirmed huge benefits that it brought to marketing. And they discovered that personal contacts are the most powerful tool to influence people opinion and behaviour[120]. In fact, there is no doubt about what the word of mouth could change over customers neither for the early researchers nor the modern researchers, word of

[117] (Keinimgham et al, (2007b); M. Rejo (2006); Reichhed, 2003)
[118] (Keiningham et al, (2007a); Pingitore et al, 2007)
[119] (Katz & Lazarsfeld, 1995; 176-179)
[120] (Brooks 1957, 155)

mouth could be transformed into advice to decrease the standard of doubt of the purchase decisions[121]. Nevertheless, it has useful and powerful impact upon new customer purchase too[122]. And it also influences the awareness of consumer wants, perceptions, viewpoints, intention comportment and attested behavioural[123].

Online word of mouth received lots of terms by researchers, Duan et al, named this as "electronic word of mouth", although also called by the name "İnternet word of mouth" by Hennig-Thurau et al as "word of mouse"[124].

Online word of mouth can be understood as the effective or negative declaration of future, actual, or ancient customers concerning a brand or product which is accessible to a large number of people and organisations through the internet[125].

Customer purchase intention can be understood as the implied guarantee to one's self to purchase the product one more time whenever he/she moves to the market[126]. It has a considerable importance by the way companies are willing to higher the sale of particular product in reason to maximize their profit.

Purchase intention is among the most discussed concepts in the marketing literature, marketing scholars have interest on purchase intentions including its relation and buying behaviour. Many studies discussed positively the correlation between "purchase intentions" and "purchase behaviour"[127]. Moreover, purchase intentions are Important to the marketing managers, they took in consideration to predict sales of new and existing products or services[128].

The data of purchase intentions can support well managers in decision making in relation with frequently demanded product, "market segmentation" and "promotional strategies". Studies have announced an incidental effect of "values" by Pitts and Woodside, and participation by Swinyard, and an undeviating effect of "consumer

[121] (Helm 2000, 159)
[122] (Trusov et al 2009, 98)
[123] (Lam et al, 2005, 9)
[124] (H-Thurau et al, 2004: 39)
[125] (H-Thurau et al, 2004: 39)
[126] (Fandos & Flavian, (2006); Halim & Hameed 2005)
[127] (Morwitz & Schmihlein, (1992); Morwitz et al, 1996)
[128] (R. Goyal 2014)

satisfaction" by Reichheld & Teal, Zeithaml et al, McQuitty et al about purchase intentions[129].

For Fishbein & Ajzen, customer purchase intention is constructed through the attitude of customer, evaluation and external elements[130]. Purchase intention permit measuring purchase product possibility of customer, and a higher purchase intention leads customers and trigger their willingness to purchase a product[131]. However, customer purchase intention shows that consumers will accompany their experience, what they like and external environment to gather information, assess options, and to finally purchase decision[132].

Moreover, Tsai said; from the customer perception that purchase intention occurs on profit and values purchases[133]. He also added that it is relevant key to forecast customer purchase behaviour.

According to He & Hu, purchase intention is estimated with the proportions of intending to purchase, value of purchase, and to suggest others to buy[134]. Although it is crucial to discuss the relationship between service quality and purchase intention of Starbucks, because service quality is an important factor to influence customer decision. As said Brady, Cronin & Brand, the existence of linkage between two factors behavioural intention and service quality[135].

Carrillat, Jaramillo & Mulki, and Cronin & Taylor, and Fornell, all believed that a providing better service store conducts positively the behavioural intention and then to increase customer intention to buy and to visit the store frequently[136].

Although most researchers agreed that service quality can surely impact purchase intention of customers, while minority of researchers claimed the contrast that there is an indirect relationship between purchase intention and service quality[137].

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[129] (Pitts & Woodside 1984, Swinyard 1993, Reichheld & Teal, (1996); Zeithaml et al 1996, McQuitty et al 2000)
[130] (Fishbein & Ajzen 1975)
[131] (Dodds, et al 1991, Schiffman & Kanuk 2000)
[132] Zeithaml, (1988); Dodds et al, (1991), Schiffman & Kanuk, (2000), Yang, (2009)
[133] (Y. Tsai 2011)
[134] (He & Hu 2008)
[135] (Brady, Cronin & Brand (2001)
[136] (Carrillat, Jaramillo & Mulki 2009, Cronin & Taylor 1992, Fornell 1992)
[137] (C. Yee, K. Mun, L. Lee, L. Ling 2014)

Customer trust is the conviction that customers got in the responsibility and capacity of service suppliers[138]. For Chang, customer trust includes "affective" and "cognitive" trust[139]. For cognitive trust customers are assured that the service supplier has capacity and responsible for keeping promises, but for affective trust customers believe that in interval of maximising the profits by service suppliers they also are concerned about what is important for customers[140].

However, customer trust affects consumer commitment progress to the product supplier for the reason of the pragmatic experiences that they had with the product or service[141]. This shows that retailers have to ensure that the service meets satisfy customers to make sure commitment by customers. Although, Boshoff and du Plessis declare that customer trust is a crucial factor to build relationship[142]. As customers are exposed to the service supplier it sometimes includes risk to take[143]. So, in order to beneficiate customer trust, the retailing manufacture should be loyal and acquiring capacity in service providing.

Some studies propose that trust is an arbitrate variable inside a model that surrounds many components relationship of "customer-brand", or this phenomenon is considered as effects chain result that involves multiple forms of evaluation executed by consumers and their dedication, or even their reliability[144].

[138] (Boshoff & du Plessis, 2009)
[139] (Chang 2012)
[140] (M. Sandada 2014)
[141] (Olaru, Purchase & Peterson 2008)
[142] (Boshoff and du Plessis 2009)
[143] (Hong and Cho 2011)
[144] (N. Nguyen, A. Leclerc, G. Le Blanc 2013)

CHAPTER III: CONSUMER BEHAVIOURS AND DIGITAL LITERACY OF CONSUMERS

3.1: CONSUMER BEHAVIOUR: EFFECTS OF DIGITAL MARKETING

Digital marketing has impacted consumer behaviour up to a huge extent. The introduction of digitalization in social life transformed it and still keeping up transforming that influenced consumer behaviour and their expectations, it is not easy at all to understand this new behaviour from the consumers[145]. *"Digital technology is changing consumers. Earlier consumers who used to seek out family and friends for word-of-mouth product recommendations now read online reviews, compare features, compare prices on web sites and discuss options via social-networking sites"*[146].

Nevertheless, brands have to be conscious of that and adapt their strategies to consumers. To add, "digital consumer" has all the power to discompose the actual competition like new entrants in any industry field, this behaviour change can intimidate brands and push them to the challenges, as well as it can offer opportunities at the same time with risks, such as when brand has chance to tempt customers then those customers make the comparison of products or services among different brands. However, the elements of consumer behaviour are following:

Customer forbearance: It is easier for customers via social media to complain about brand's unsatisfactory service. The phenomenon is so hard for companies to fulfil customers' expectations; what customers always appreciate is when the service is easier, if it is not the case they might complain through social media and to inform others about the bad quality of service, for this reason, brands must be aware of consumers intolerance over them, and they should react appropriately to keep their "Customer base".

[145] (D. Owolabi 2018)
[146] (A. Charan & R. Dahiya 2015)

Customer conversation: Customers conversation on social media make them of having ability to bring positive or negative things to the company. Spoken communication is always a major factor to the brand especially “brand awareness”, therefore precisely friends and family, but today this is confirmed through social media, the brand status can be raised or destroyed in a wink due to consumers’ communication between them.

Loyalty: Customer loyalty is very important for the development of a brand; they exchange value against money. On the other hand, they will not accept any cheapest product or service, the same things for a too expensive product or a poor service quality. Brands have to understand that customers possess different loyalty degree and keep it for the betterment.

Promotion: After the appearance of digitalization that, customers realized they do not need much "traditional information channels", and more focusing on now on digital channels, as a result, they found it more efficient than the traditional ones, this consumer response affected completely brands to bounce into digital, because their objective is customers and fulfilling their needs, then they tried to enter in communication with customers to understand their behaviours, serving their feedback to improve customer experience. Though the combination of traditional marketing and advanced digital marketing is not an easy task, brands must keep successful customer communication and encouragement with their client base.

Information: Consumers benefited from getting knowledge about products or services, by the rising of digital and to add chat, it is greater; easier for customers to reach information in opinion, just in seconds quickly by offering them sufficient details to form "informed purchase decisions".

Multi-channel communications: According to this element, brands do not select communication models as the best channel by customers, because consumers choose in function of which channels are used by influencers, usually like, friends, family, but companies must decide channels as main focus which fit well the type of interchange they want, otherwise this interaction will not signify anything for consumers even not profitable.

Therefore, consumers and clients that brand meets them online or in-store are alike people, and for whom make a phone call or order, there is nothing to be concerned about them; they are people after all. These consumers communicate with each other in

relation with technology which enabled an easy and faster communication over long distance and multiple phones, but in the 3D sphere, it is considered as dangerous and is necessary to be mastered as possible. However, consumers hot tendency not to care about what marketers do to describe their action, in contrast, they do care about experience, and which marketing can be put in place accessible to them; in order to support making further informed decisions for enhancing this experience, as customer behaviour is changing due to the prevalent and digital technology nature. That is why marketers also need to do everything in their possibility to understand their behaviours. As Dave Friedman, "president of the central region for avenue A/Razorfish" said that most of 21st consumers are sedulously individualising their digital experiences and sampling recess content and video that cause improving frequency[147]. Therefore, anonymity is one of the pure online characteristics that affect deeply consumer behaviour; it allows them to get away from the social media chains circle that fastens them in the factual world. Online, they require a perfect customer experience and immediate fulfilment, and delivery must be on time routinely. In consequence, these consumers can vanish quickly as they came rapidly to the company; if the company does not engage well to satisfy them, they may let a maximum of their friends know about this bad engagement.

3.2 KEY CHARACTERISTICS OF DIGITAL CONSUMERS

In a dynamical domain and progressing fast, it is consistently dangerous to gather and make suppositions over people. It is evident that plenty of research has been done and still keeping up to be performed on what are digital consumer behaviour characteristics. However, in order for marketers to fully understand the market; the only manner to manage veritable research in specific target category, a large accord has developed about the key features which shape to online consumers are following[148]:

[147] (D. Kaya & C. Jones 2009a)
[148] (D. Kaya & C. Jones 2009b)

- Digital consumers are more comfortable with the medium: “Many online consumers have been using the internet for several years at this stage – and, while the user demographic is still skewed in favour of younger people, even older users are becoming increasingly web savvy”.

Despite, elders are learning increasingly and becoming tech-savvy. J. Nielsen, in an interview of BBC, where he gave an example on online consumers as piano players in controlling perfectly the piano after knowing instrument[149]. He added that individuals play slowly and prudently at the beginning, and until they get used coherently. People are using medium "efficiently and effectively" so much comfortable, it means no wasting time anymore, they want the content to be delivered as asked and on time.

- For this characteristic, consumers want all of it and immediately: No doubt in today’s digital world information is circling rapidly to wide spread just in minutes, though consumers used to get information on request from several sources[150]. At the same time and their moment is precious item, they like to receive information in shape so that it can be scammed for significance before wasting time to inspect the detail. Therefore, this willingness for "scan-ability" and immediate satisfactory must be considered by marketers while struggling with their digital offerings.
- Consumers are controlled: Web 2.0 sphere permitted to control users than it was before and brands should not allow themselves failing to seize mere reality which will also lead target group failing to hold with brands even stronger, marketers must adapt their marketing to be “user-authentication”, eligible, and offering a true proposal value to customers to collect effective results[151].
- Flexibility of consumers: the internet instance and lucidity do not just remove the brand notion or salesperson loyalty. In contrast, they destroy it, constructing the trustiness of brand remains yet an important factor of online marketing, but nowadays consumers are strong they are king and possess the power to make comparison and to distinct concurrent brands exactly at their accessibility. The

[149] (J. Nielsen 2006c)
[150] (D. Kaya & C. Jones 2009c)
[151] (D. Kaya & C. Jones 2009e)

question to be asked is ‘how does the proposal value of brand build up in opposition to competition throughout the county and over the world?

According to P. Laja, the definition of this value proposition is a comprehensible declaration who provides three things[152]. 1.Pertinency: Explanation of solving customer problems and ameliorate their position by brand. 2. Measured value: Providing particular benefits. 3. Distinction: Show to the absolute customer the reason of buying from the brand and not from the concurrent.

3.3 DEFINITION OF DIGITAL LITERACY

After seeing what digital caused in the previous chapter to consumers and organizations; briefly, it allowed an effected engagement of customers over companies to be ensured, a strong relationship "producer-distributor-consumer” and alike, despite the development it brought, but consumers have been impacted with lack of interconnectivity. Now this chapter discusses consumers' ability to adapt to technologies, understanding and using information effectively to facilitate their lives especially when encountering the company online, so-called digital literacy.

Digital literacy is understood as 21st-century skills all associated with individuals to succeed and fitting to use of technology with a big deployment of mobile devices, computer etc. full accessibility to the internet. People are able to communicate and inform themselves as well in real-time specifically for consumers when it comes to make online transactions, sharing information with any kind of technology device comfortably.

Moreover, for “American Library Association, digital literacy is the capacity of using information and communication technologies to obtain, assessing, generate, and make circling information, in demand of both understanding and practical skills[153]. This definition of“ALA" describes what digital literacy means for consumers to communicate, and to be informed of the update of brand’s digital strategy, remembering of brand among competitors and to pay attention to its advertisement about products or services, through the capacity of using technology on one hand, on the other hand, being able to make transactions without anybody efforts.

[152] (P. Laja 2019)
[153] (American Library Association (ALA), 2013)

Therefore, in order to be digitally literate, it is necessary to get access to a huge range of practices and "cultural resources" that allow people to use digital tools[154]. It is the capacity to build and share concept in several modes and formats; to generate and collaborate for effective communication way, and also understanding the perfect moment of digital technologies to help these processes[155].

Moreover, according to Martin, Digital Literacy is the individual's awareness, attitude and capacity to utilise digital tools perfectly and facilities for set of following process like, how to identify, accessibility, control, combine, assessment, analyse and connect resources, reset new knowledge, creation of media expressions[156]. To communicate with others, in the circumstance of particular life situations, to construct social action; and to throw back on this process.

By mastering the three dimensions of digital literacy, which are technical, cognitive, socio-emotional, can create positive relations to trust, being loyal with coffee brand like Starbucks, its application mobile, Starbucks card, and all its online activities. The technical dimension allows customers to learn, connect and use devices. The cognitive one refers the ability of thinking critical way in the search; the capacity to evaluate and choose perfect software to learn with or to do a particular task. Socio-emotional dimension means of being digitally literate, using responsibly the internet to communicate and socialise[157].

3.4 CONCEPTS OF DIGITAL LITERACY

Digital literacy has known two big concepts that this section gives some details about it. To start, R. Lanham attested that (Literacy) could not be limited at just reading and writing ability but further; the meaning of ability to understand information, he also argued in order to be digitally literate requires first to be able to interpret compound images and sounds to analyse precisions of words[158].

[154] (Hague & Payton 2010, P.2)
[155] (W. Ng 2012a)
[156] (Martin 2005, P.135)
[157] (W. Ng 2012b)
[158] (Lanham, R. 1995)

Then P. Glister, according to him digital literacy is the comprehensive ability and the use of information in various forms from a large different of sources when it is demonstrated by computers, and particularly by the medium of internet[159].

Furthermore, in the same book as claimed by Glister for all mankind to be digitally literate and properly (learning & teaching), after all; everyone start as a student learner before one day become an entrepreneur or to make online transactions, where he marked point the way of using the web perfectly and the way to be critical, and he also added that all human being should learn this skill[160]. For Glister, as human beings are dependent on this phenomenon, therefore people must adapt their skills to the new methods because the use of internet describes the learning capacity of individuals. In contrast to the first concept of Lanham, Glister based upon "Mastering Ideas" understanding Information and use it, another concept appeared which is "Standardized Operationalization" to operationalize what is implicated in being "Digital literate" in other words, revealing, performances of expertise.

This concept is attributed to "(GDLC) Global, Digital, Literacy, Council", its one main objective is to evaluate and innovate the digital literacy attainments focused upon input from international concern experts. The current GDLC standards are ascribed to the internet and "Computing Core Certification (IC^3)" where tests are administrated by "certiport (certiport.com)" which envelops computing fundamentals, "key applications" and living online. Both two concepts are crucial for individuals to boost their digital technology skills by mastering information or devices.

3.5 8 ESSENTIAL ELEMENTS OF DIGITAL LITERACY

Individuals must develop their digital literacy especially in digital environment, otherwise you may feel left behind others, on the other words, company will not make profit that leads to declining, consumers may not be aware of companies' announcements within environment completely digitally, to do so; it is high-priority to improve skills, "attitudes and aptitudes" in the eight dimensions that will be detailed one after another.

[159] (Gilster, P. 1997:6)
[160] (Gilster, P. 1997:8)

However, these 8 essential elements of digital literacies attributed to D. Belshaw as he claimed in large technics the difficulty that literacies in plurality were not took account by the digital literacy models, the main focus was only on single (digital literacy) and later this was criticised of being excessively indefinite[161]. He also added that, *"If a definition or model is too detailed then it begs the question around, who are doing prescribing what privileges their perspective?! On the other hand, if definitions or models do not provide enough detail, then it is extremely difficult to put them to work"*. They are called digital literacies, his model separates digital literacy into literacies that are relevant for everyone even librarians, it offers a "holistic" approach to digital literacy and to know how to use technology which is one of 8 elements (constructive).

Additionally, this model is illustrative and not viewpoint to render it a perfect learning system for developing the fluidity of digital literacy of beginners in digitalization and optimistic digital learners.

The 8 essential elements are the following**:**

- Cultural
- Cognitive
- Constructive
- Communicative
- Confident
- Creative
- Critical
- Civic

Cultural: how to behave, as heaviest users of technology are young people (teenagers), they grow up with it, in their homes or their lives, however, digitization has indeed been introduced for world development, happiness for everyone and permitted boundaryless among counties, ethnicity, language learning, but the way generation Y behaving is definitely contradictory, no private life, exceeding online gaming, they do not differentiate much between personal and professional utilize, fortunately, there is a

[161] (D. Belshaw 2014; P.43)

generation X to be responsible for this reaction, this age group's main focus uses of technology are of creating online communities and shaping their own identities.

Cognitive: how to do, another relevant essential element of digital literacies is the cognitive element, as in today's world most of the organizations are getting digital presence, to serve modern consumers' needs, this is why organizations are learning and language processing for helping people and interactions of devices more naturally and effectively. Besides, as the amount of "Data humans create" continues to grow, the cognitive element can help businesses to process, analyse, understanding and storing the data through intelligent appliances, and making a better decision, as an example; the Netflix utilises programs and machine learning to trigger suggestions for viewers.

Constructive: how to use, the third one is constructive that for D. Belshaw, involves using digital tools properly to enable constructive social action "reused and remixed", and putting together other people's work in interesting ways within the digital world. As claimed by Doug the constructive element is the manner of being able to propagate the work of other people properly with lower effort, it also means the new forms of patent like creative commons which permit people to share online their content to describe the circumstances under which it may be usable[162].

He also compared the digital world to the physical one where for him it takes time and effort to copy in physical world or analogue way while it is quickly easy virtually and effortless in digital world.

Communicative: how to communicate, digital literacy always contains communicating for a particular purpose, knowing this purpose of numerous online tools and differentiating points, one example of online tools is "Olark" a small "pop-up" positioned at the bottom of website that allows companies to chat with their customers, even if the user is not available it will keep being operational, it can also be a way to differentiate "service level" that company provides. The purpose here is the connectivity company-customers as customers want to be with the company which provides them excellent customer service.

However, in order to communicate properly and utilising a specific digital technology includes first knowing, understanding and applying some rules and expectations[163]. This

[162] (D. Belshaw 2014; P.49)
[163] (D. Belshaw 2014; P.50)

communicative element of digital literacies includes as well communication norms as its name suggests, the term means a norm controlling communication applications built upon shared assumptions.

Confident: how to belong, the fifth essential element of digital literacies is confident, as reported by Doug, this element includes understanding and exploiting in the manner that differentiate digital world from physical one or analogue[164]. It comprises connecting the points; this element requires of being a part of an online community in which people could post on it, receiving responses from others where they may feel belonging to the community confidently. Although some parents prevent their children (teenagers) not using social media, somewhere they are right to protect them what is their duty, but we must be careful because the digital world can be a frightening area for those unutilized to it.

Creative: how to make, creative element of digital literacies, an element that refers to create new things that, in turn will add value and focusing more on the value created in the given context than the "act" of creating something new. However, the creative element of digital literacies refers of creating new things in new methods in some way to add value. It is about serving by digital technologies and techniques to invent or reach things that were impossible before or at least it was inaccessible to most of individuals[165].

Furthermore, Doug confirms that creativity rises by making something new in digital domains and precise value in particular context, according to him to improve this creative element of digital literacies includes couple of elements, and both of them follow from the "SMAR" illustration. Firstly, learning activities that exist should be seriously restructured to consider the possibilities of digital technology. Secondly, the capacity of individuals of being creative necessitates a privilege level and dynamic change between instructor and trainee[166].

Critical: how to evaluate, another essential element of digital literacies is critical, about evaluating the "power structures" and assumptions behind beliefs, attitudes, values, "social relationships" the way people communicate in the online digital world is really different from offline world, because reading and writing in online world includes

[164] (D. Belshaw 2014; P.52)
[165] (D. Belshaw 2014; P.53)
[166] (D. Belshaw 2014; P.54)

“encoding and decoding texts”, while in offline world “books, manuscripts and documents” compose these texts.

However, with hyperlinks, readers can be able to control the structure of what they need and allow documents to be "non-linear". The hyperlinked documents take alike conception from the online world. An example was given by Doug in the book, which includes hyperlinked annotation to allow people to follow while reading upon a connected device to the internet[167]. This element for individuals how to search effectively and being able to differentiate credible sources from what is less credible.

In addition, "Multimedia devices videos, audio" all can be texts, to go far as learners in this critical element, Doug argued that in order to advance deeply in the critical element of digital literacies includes thinking ability towards literacy practices. It is reflecting on what has influenced you, and how your actions affect others; on the other words, the way people organize texts themselves, also the techniques by which they decipher other texts, this is important in both side offline and online. But texts are more available in the digital world[168].

J. Hinrichsen & A. Coombs at the University of Greenwich present a 5 resources model for expressing the range and proportions of digital literacies. The resources associated to practice and are indicative of repertory, there is a ubiquitous interrelation between them, the table below explains these 5 resources of critical element of digital literacies:

5 resources of the critical element of digital literacies

Table 1: 5 resources of the critical element

Decoding	This source focuses on “structures and conventions of digital, media", responsiveness to media-methods within digital artefacts and being confident of using the operational compositions.
Meaning Making	It is a reflexive procedure that focuses on reader content, "style" prior experience, knowledge, responses, and purpose of the text; it implies both understanding and explanation.

[167] (D. Belshaw 2014; P.55)
[168] (D. Belshaw 2014; P.56)

Using	It focuses on developing an ability to deploy digital tools appropriately and effectively to gather information for a given purpose. Also solving practical problems dynamically and flexibly as they increase by using a range of methods and approaches individually or being a part of the community.
Analysing	Developing the ability to judge and concluding digital tools, and the ability to apply critical, "aesthetic and ethical perspectives" to the production and consumption of digital material.
Persona	In the digital context, to develop a sense of an individual's roles and the ability to work with others in a variety of modes.

Civic: How to participate, civic is the last element as the spreading of digital environment nowadays, people are living in to “self-organize”, preparing themselves and others for fully participate in society, this civic element involves of getting knowledge and to be able to utilise digital environment to “self-organize”, being member of a community stronger than themselves. It involves understanding the digital rights and responsibilities of others.

CHAPTER IV: RESEARCH METHODOLOGY

In this chapter, the study detailed the importance of the research following this paragraph, and 5 hypotheses proposed for this study are explained, methodology contains also the way data is collected, from the sample within a population, and analysis type that has been used for the research after collecting data also explained, items were also measured to determine reliability of scales.

4.1. THE PURPOSE OF THE RESEARCH:

The purpose of this study is to detect relationship between customer loyalty, satisfaction, intention to recommend, purchase intention, and customer trust of using mobile apps, with digital literacy of customer knowing how to solve internet problems, perfect use of technology devices, information and communication skills.

As the integration of technology in the world-life, people quickly adapted to this phenomenon in order to facilitate running their business to make the life easier, and today's world most people are digitally literate especially students who the majority of them are millennials and alpha generations who are known for their extra use of technology, due to the wide spread of technological devices, computer, smartphones and so on, plus the accessibility of the internet.

The accessibility of electronic devices and internet closes well customers to the brands and allows them to be loyal and provide willingness to repeat the purchase, even if sometimes also it permits consumers to make comparison among a lot of brands to affect negatively the purchase intention.

H. Spires, C. Paul & S. Kerkhoff discussed the impact of digital literacy of students but on their education, they did not talk about digital literacy student as consumer which is also an important factor to be discussed to understand young people behaviour in digital environment[169]. That is why this study is so important there are few studies that discussed on the topic. Variables are supported and defined by the literature review in the previous chapter.

[169] H. Spires, C. Medlock Paul, and S. Kerkhoff (2017).

Glister claimed that people are dependent to the digital literacy, and he recommended people to learn it, in order to use internet perfectly, and to be critical[170]. Because for him, using internet skills may describe the learning capacity of people.

According to ABS-CBN News, in the survey of PUBLICUS Asia İnc, surveyed 1,200 people (millennials) and 81.6% of them confirmed of playing online games, while the rest 18.4% claimed otherwise, and a third of those who answered affirmative said of playing every day[171].

Instrumentation

The research contains factors that are related to consumer digital literacy, all of these variables were determined based upon study topic. An ordered questionnaire was developed to assess obtained variables as an output of literature review according to the rules of measurement. At the beginning of the questionnaire, some statements were formed to determine the demographic characteristics of the participants. Concepts and definitions related to the study of all variables are analysed. On the other hand, the obtained scale items of variables from literature were determined. Research instrument contains 5 constructs and sub-items of each construct additionally to a demographic characteristics part.

Consumer loyalty of using mobile apps construct included 7 items adapted from Donio, Massari & Passiante[172]. Consumer satisfaction contains 5 items and were evaluated with the scale adapted from Xu, Peak and Prybutok[173]. And 4 items were found from the previous studies Xu, Peak and Prybutok about consumer intention to recommend factor to use mobile apps. Consumer purchase intention is another factor that included 3 items adapted from Kim, Gupta and Koh[174]. The construct of consumer trust contains 5 items and were adapted from Chandra, Srivastava & Theng[175]. Consumer digital literacy construct that has relation with all of these factors included 10 items and were adapted from[176]. Nevertheless, the original language of the scales was in English. All constructs

[170] (Gilster, P. 1997:6)
[171] (ABS-CBN News 2019)
[172] (Donio, Massari & Passiante 2006)
[173] (Xu, Peak & Prybutok 2015)
[174] (Kim, S. Gupta & J. Koh 2011)
[175] (S. Chandra, S. Srivastava & Y. Theng 2010)
[176] (W. Ng 2012c)

of the study were measured on five-point Likert type scales (From 1= Strongly disagree to 5= Strongly agree)

Table 2: Measurement of items

Variables	Numbers	Questionnaires	Sources
Customer loyalty	1	As a customer of coffee brands, I am willing to put in extra effort to use mobile applications	Donio, Massari, and Passiante, (2006)
	2	As long as the product is similar I could just as well be buying from a different firm/ brand	
	3	I am proud to tell others that I buy product from this firm	
	4	I would recommend this brand to others	
	5	I feel loyal to coffee brand that I prefer to buy from	
	6	Coffee brand that I prefer is the best coffee company alternative	
	7	I expect to buy from coffee brand that I prefer for a long period of time	
Customer Satisfaction	1	I am very satisfied with the overall experience of using the coffee brand application	Xu, Peak and Prybutok, (2015)
	2	I am very pleased with overall experience of using the coffee brand application	
	3	I am very contented with overall experience of using the coffee brand application	
	4	I feel very delighted with overall experience of using the coffee brand application	
	5	Overall, I am very satisfied with the coffee brand that I prefer	
Intention to recommend	1	I intend to say positive things about the application	Xu, Peak and Prybutok, (2015)
	2	I would say good things about application	
	3	I would recommend the application to other people	
	4	I intend to encourage other people to use the application	
Customer purchase intention	1	The probability that I would consider buying coffee from the brand is high	Kim, Gupta and Koh, (2011)
	2	My willingness to buy from the coffee brand is high	
	3	The likelihood of my purchasing from the coffee brand is high	
Customer trust	1	I trust mobile application of coffee brands to be reliable	Chandra, Srivastava, and Theng, (2010)
	2	I trust mobile application of coffee brands to be secure	
	3	I believe mobile applications of coffee brands are trustworthy	
	4	I trust mobile applications of coffee brands	
	5	Even if the mobile applications are not monitored, I would trust them to do the job correctly	
	1	I know how to solve my own technical problems	
	2	I can learn new technologies easily	
	3	I keep up with important new technologies	
	4	I know about a lot of different technologies	
	5	I have good Information Communication Technology (ICT) skills	
	6	I have the technical skills I need to use ICT for learning and to use mobile applications that demonstrate my understanding of what I have learnt	

Digital literacy	7	I am confident with my search and evaluate skills in regards to obtaining information in web	Ng. (2012)
	8	I am familiar with issues related to web-based activities e.g. cyber safety, search issues, plagiarism	
	9	ICT enables me to collaborate better with my peers on project work and other learning activities	
	10	I frequently obtain help with my university work from my friends over the internet e.g. through Skype, Facebook, Blogs	

Hypothesis:

H_1, Consumer digital literacy has positive relation with loyalty of consumers to use mobile apps of coffee brand.

H_2, Consumer digital literacy has positive relation with consumer satisfaction of using mobile apps of coffee brand.

H_3, Consumer digital literacy has positive relation with consumer intention to recommend the use of coffee brand mobile apps.

H_4, Consumer digital literacy has positive relation with consumer intention to purchase coffee.

H_5, Consumer digital literacy has positive relation with consumer trust to use mobile apps of coffee brand.

4.2 DATA COLLECTION METHOD

In this research, qualitative method was conducted, and data was collected by the questionnaire in December of 2019, from students at the three campus of İstanbul Okan University located in Tuzla, Mecidiyeköy and Hasanpaşa, and the university ethics committee.

The survey questionnaire was divided into two parts. The first part, was contained the demographic characteristics of respondents to choose age, gender, marital status, education level that are proper for them, and to select their preferred coffee brand, and whether they use mobile apps of the favoured coffee firm and choosing the suit times of buying coffee. In the second part, respondents were asked to select the proper answer for them under Likert scales form from 1 as strongly disagree to 5 strongly agree in scale, about the degree of their trust, loyalty, purchase intention, intention to recommend and satisfaction towards coffee brands and their mobile apps, and also about the respondents' digital literacy level. Students were given questionnaire paper to fill in and the collected data was 255 respondents.

4.3 DATA ANALYSIS

Information collected by the questionnaire was first registered into data set and then analysed by the SPSS (Statistical Package of Social Science). Analysis of data was done by descriptive statistics to determine the different mean and standard deviation of variables, and frequency analysis also was used to understand better demographic categories of respondents in the study, some of these demographics of respondents were compared with the use of mobile apps of coffee brands, coffee brand preferences, and buying coffee occasions in cross tabulation.

Correlation analysis test was done for each of the 5 hypotheses of the study, to determine the relationship between digital literacy and other factors. All hypotheses have been analysed and results were positive relations.

Table 3: Reliability statistics

Code		Factor Loadings	Cronbach's Alpha
	1. Loyalty		**0.663**
LYT1	As a consumer of coffee brands, I am willing to put in extra effort to use mobile applications	0.538	
LYT2	As long as the product is similar, I could just as well be buying from a different firm/ brand	0.160	
LYT3	I am proud to tell others that I buy product from this firm	0.336	
LYT4	I would recommend this brand to others	0.559	
LYT5	I feel loyal to coffee brand that I prefer to buy from	0.460	
LYT6	Coffee that I prefer is the best coffee company alternative	0.445	
LYT7	I expect to buy from coffee brand that I prefer for a long period of time	0.479	
	2. Satisfaction		**0.864**
STF1	I am very satisfied with the overall experience of using the coffee brand application	0.566	
STF2	I am very pleased with the overall experience of using the coffee brand of application	0.637	
STF3	I am very contented with overall experience of using the coffee brand application	0.616	
STF4	I feel very delighted with overall experience of using the coffee brand application	0.614	
STF5	Overall, I am very satisfied with the coffee brand that I prefer	0.583	
	3. Intention to recommend		**0.861**
İtR1	I intend to say positive things about the application	0.624	
İtR2	I would say good things about the application	0.704	
İtR3	I would recommend the application to other people	0.595	
İtR4	I intend to encourage other people to use the application	0.498	
	4. Intention to purchase		**0.861**
İtP1	The probability that I would consider buying coffee from the brand is high	0.619	
İtP2	My willingness to buy from the coffee brand is high	0.607	
İtP3	The likelihood of my purchasing from the coffee brand is high	0.613	
	5. Trust		**0.879**
Trust1	I trust mobile application of coffee brands to be reliable	0.656	
Trust2	I trust mobile applications of coffee brands to be secure	0.647	

Trust3	I believe mobile applications of coffee brands are trustworthy	0.686	
Trust4	I trust mobile applications of coffee brands	0.648	
Trust5	Even if the mobile applications are not monitored, I would trust them to do the job	0.475	
	Digital literacy		**0.872**
DGL1	I know how to solve my own technical problems	0.484	
DGL2	I can learn new technologies easily	0.561	
DGL3	I keep up with important new technologies	0.621	
DGL4	I know about a lot of different Technologies	0.429	
DGL5	I have good Information Communication Technology (ICT) skills	0.344	
DGL6	I have the technical skills I need to use ICT for learning and to use mobile applications that demonstrate my understanding of what I learnt	0.575	
DGL7	I am confident with my search and evaluate skills in regards to obtaining information from the Web	0.469	
DGL8	I am familiar with issues related to web-based activities e.g. cyber safety, search issues, plagiarism	0.356	
DGL9	ICT enables me to collaborate better with my peers on project work and other learning activities	0.504	
DGL10	I frequently obtain help with my university work from my friends over the internet e.g. through Skype, Facebook, Blogs	0.218	

The scale items are personalised from various scales, and it is important before proceeding any kind of analysis to measure reliability level of the scale, among the most common used method in order to measure this reliability of scales, it is important to figure out their Cronbach's alpha values. Cronbach's alpha of each item showed in table 3. The coefficient of reliability is determined between 0 and 1, and the minimum range to be acceptable is situated as above 0.60 and 0.70. When this number is higher than 0.70 and beyond, the questionnaire scales are considered as valid[177]. As shown in the table 3, loyalty item Cronbach alpha value is 0.663. Satisfaction item Cronbach alpha value is 0.864. Recommendation item Cronbach alpha value is 0.86. Intention to purchase Cronbach alpha value is 0.861. Trust item Cronbach alpha value is 0.879. Digital literacy

[177] (Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. L. 1998)

item Cronbach alpha value is 0.872. So, all the Cronbach values of items are above the minimum valid range.

In this section, demographic characteristics of the respondents and statistical analysis of hypothesises results are given and interpreted.

Demographic characteristics of the respondents are given in Table 4.

Table 4: Demographics of the respondents

Demographics	Category	N	%
Gender	Female	81	31.8
	Male	174	68.2
Marital Status	Married	15	5.9
	Single	240	94.1
Age	17 or younger	4	1.6
	18-20	75	29.4
	21-29	160	62.7
	30-39	14	5.5
	40-49	1	0.4
	50 or older	1	0.4
Education level	Master Degree	38	14.9
	PhD	9	3.5
	Undergraduate	208	81.6

Of the respondents, 81 (31.8%) are Female while 174 (68.2%) are Male. Of the participants, 15 (5.9%) are married and 240 (94.1%) are single. However, 4 (1.6%) are 17 or younger of age; 75 (29.4%) are between the ages of 18-20; 160 (62.7%) are between the ages of 21-29; 14 (5.5%) are between the ages of 30-39; 1 (0.4%) are between the ages of 40-49; 1 (0.4%) are 50 or older of age. Of the participants, 38 (14.9%) have master degree level of education, 9 (3.5%) have PhD level of education, 208 (81.6%) have undergraduate level of education.

Table 5: Distribution of coffee brand preferences

Coffee brands preferences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Starbucks	167	65.5	65.5	65.5
	Kahve Dünyası	47	18.4	18.4	83.9
	Canteen	33	12.9	12.9	96.9
	Other	8	3.1	3.1	100.0
	Total	255	100.0	100.0	

According to the table 5, 167 (65.5%) of respondents prefer Starbucks as their principal coffee brand and it has the higher number of coffee consumer respondents, 47 (18.4%) of respondents who answered of preferring Kahve Dünyası their favoured coffee brand than any other, 33 (12.9%) of participants prefer Canteen, and only 3.2% of respondents have flexible choice for the other coffee brands.

Table 6: Distribution of using mobile apps of coffee brands

Using mobile apps

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	100	39.2	39.2	39.2
	No	155	60.8	60.8	100.0
	Total	255	100.0	100.0	

In the table 6, of participants, 155 (60.8%) confirmed of not using mobile apps of coffee brands while 100 (39%) of respondents are using that mobile apps of coffee brands.

Table 7: Respondents' distribution of buying coffee occasions

Occasions of buying coffee

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Everyday	113	44.3	44.3	44.3
	once or twice a week	108	42.4	42.4	86.7
	once a month	20	7.8	7.8	94.5
	not at all	8	3.1	3.1	97.6
	Other	6	2.4	2.4	100.0
	Total	255	100.0	100.0	

In the table 7, it is clear that everyday 113 (44.3%) of respondents buy coffee, 8 (3.1%) of participants buy coffee at any time, 20 (7.8%) of respondents buy coffee only

once a month while 108 (42.4%) of participants buy it once or twice a week which is the second biggest number of respondents to buy coffee, while 6 (2.4%) of respondents buy coffee for irregularly times.

Table 8: Cross tabulation 'Age and Use of mobile apps of coffee brands'

Age * Using mobile apps Crosstabulation

Count

		Using mobile apps		
		Yes	No	Total
Age	17 or younger	3	1	4
	18-20	27	48	75
	21-29	65	95	160
	30-39	4	10	14
	40-49	0	1	1
	50 or older	1	0	1
Total		100	155	255

It is shown in the table 8 that between the age 21-29 of respondents use much the mobile apps with 65 participants as the higher number of saying Yes despite none-users of mobile apps are 95 participants. The age between 18-20; 27 of respondents confirmed of using it against 48 respondents who responded No. 4 of participants between the age 30-39 said Yes of using it while 10 of them responded No. The age 17 or younger; in this age group for this time the number of respondents who answered Yes of using mobile apps is higher than those who answered No. According to the result of table, the age between 40-49 and 50 or older of respondents are not common users of this apps.

Table 9: Cross tabulation 'Marital status and Occasions of buying coffee'

Occasions of buying coffee * marital Crosstabulation

Count

		marital		
		married	single	Total
Occasions of buying coffee	Everyday	9	104	113
	once or twice a week	5	103	108
	once a month	1	19	20
	not at all	0	8	8
	Other	0	6	6
Total		15	240	255

In the table 9, of respondents 104 are single who buy coffee everyday while only 9 of them are married, 103 of respondents are single who buy coffees once or twice a week and 5 of them are married, all married participants responded to buy coffee, but 8 single of respondents do not answer properly times of consuming coffee, 19 single respondents buy coffee only once a month and just 1 participant married buy it once a month, of respondents 6 are single who do not have fix times of buying coffee, they might buy it at any time.

Table 10: Cross tabulation 'occasions of buying coffee and the use of coffee brand's mobile apps'

Occasions of buying coffee * Using mobile apps Crosstabulation

Count

		Using mobile apps		
		yes	no	Total
Occasions of buying coffee	Everyday	49	64	113
	once or twice a week	41	67	108
	once a month	5	15	20
	not at all	1	7	8
	Other	4	2	6
Total		100	155	255

In the Table 10, 64 of respondents who do not use mobile apps of coffee brands buy coffee frequently every day against 49 of respondents who use the mobile apps and consume coffee every day, 7 of respondents who do not use the apps responded not at all while only 1 of them who use it responded not at all, 15 of none mobile apps users confirmed to buy coffee once a month against 5 mobile apps users of respondents, the biggest number of the table 67 of respondents who do not use the apps buy coffee once or twice a week while 42 of them who use it buy also at the similar occasions, for the first of respondents the users of mobile apps exceed none users 3 against 2 who buy coffee at flexible times.

Table 11: Cross Tabulation of respondents' Gender and Brand preferences

Coffee brands preferences * Gender Crosstabulation

Count

		Gender		
		Male	female	Total
Coffee brands preferences	Starbucks	116	51	167
	Kahve Dünyası	25	22	47
	Canteen	27	6	33
	Other	6	2	8
Total		174	81	255

In the table 11, of respondents 116 male prefer Starbucks as a coffee brand while only 51 are female who accept Starbucks as preferred coffee brand, 25 of respondents are male who prefer Kahve Dünyası and 22 of them are female to prefer it; the difference between male and female number of preferring Kahve Dünyası as coffee brand is not much because the majority male of respondents prefer Starbucks, 27 male of participants prefer Canteen against 6 female, and 6 male of respondents have flexible choice for the other coffee brands against 2 female of them.

Table 12: Descriptive statistics of independent and dependent variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Digital Literacy	255	1.00	5.00	3.6729	.77277
Loyalty	252	1.57	5.00	3.4796	.66981
Satisfaction	251	1.00	5.00	3.3729	.94059
Recommendation	253	1.00	5.00	3.5484	.90790
Purchase intention	251	1.00	5.00	3.7185	.94726
Trust	253	1.00	5.00	3.4996	.95196
Valid N (listwise)	240				

Descriptive analysis shows the total sample along with the values of minimum, maximum, mean and standard deviation. The research variables are measured by the help of 5point Likert scale, in which; the coding of the options is strongly agree as '5', agree as '4', neutral as '3', disagree as '2', strongly disagree as '1'.

The high mean value for the variables signifies that the answers given for the particular variable are in the agreement, and the less mean value signifies that the provided answers are in disagreement.

As shown in the table 12 above, purchase intention contains the highest mean value of 3.7185 with std deviation of 0.94726, digital literacy has the second highest

mean value of 3.6729 with std deviation of 0.77277, recommendation intention contains the mean value of 3.5484 and 0.90790 of std deviation, trust has the mean value of 3.5 with 0.95196 of std deviation, loyalty contains the mean value of 3.4796 and std deviation of 0.66981, satisfaction has the mean value of 3.3729 with std deviation of 0.94059. So, it can be said that all the means of variables are above 3; closer to 5 than 1, which signifies that all of them are in agreement.

Table 13: Descriptive statistics of digital literacy questions

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I know how to solve my own technical problems	255	1	5	3.45	1.193
I can learn new technologies easily	255	1	5	3.89	1.161
I keep up with important new technologies	255	1	5	3.89	1.157
I know about a lot of different technologies	255	1	5	3.46	1.176
I have good information communication technology (ICT) skills	255	1	5	3.33	1.217
I have the technical skills I need to use technology for learning and to use mobile applications that demonstrate my understanding of what I have learnt	255	1	5	3.79	1.079
I am confident with my search and evaluate skills in regards to obtaining information from Web	255	1	5	3.93	1.057
I am familiar with issues related to web-based activities e.g. cyber safety, search issues, plagiarism	255	1	5	3.53	1.068
Technology enables me to collaborate better with my peers on Project work and other learning activities	255	1	5	3.71	1.063
I frequently obtain with my university work from my friends over the internet e.g. through Skype, Facebook, Blogs	255	1	5	3.75	1.147
Valid N (listwise)	255				

In the table 13, it is relevant to give some details about respondents' digital literacy level, so descriptive statistics has been used for each digital literacy questions: For the question of "I am confident with my search and evaluate skills in regards to obtaining information from Web" has the higher mean in the table with 3.93 and 1.057 of std deviation.

For the questions "I can learn new technologies easily" and "I keep up with important new technologies" both of them have the same mean 3.89 with different std deviations 1.161 and 1.157.

And then the question “I have the technical skills I need to use technology for learning and to use mobile applications that demonstrate my understanding of what I have learnt” has the mean of 3.79 with 1.079 of std deviation.

For the question “I frequently obtain with my university work from my friends over the internet e.g. through Skype, Facebook, Blogs” has the mean of 3.75 with 1.147 of std deviation.

The question of “Technology enables me to collaborate better with my peers on Project work and other learning activities” has the mean of 3.71 with 1.063 of std deviation.

For the question of “I am familiar with issues related to web-based activities e.g. cyber safety, search issues, plagiarism” obtained the mean of 3.53 and std deviation 1.068.

For the questions of “I have good information communication technology (ICT) skills” with mean of 3.33, and “I know how to solve my own technical problems” with mean of 3.45, and “I know about a lot of different technologies” with mean of 3.46, are closed to be in neutral which is (3), they are not in agreement.

4.4 RESEARCH FINDINGS

The output below contains results of correlation analysis, for the relation between consumer digital literacy and dependent variables trust, loyalty, recommendation intention, purchase intention and satisfaction, to determine whether the positive relation exist or not between customer digital literacy and other dependent variables, as hypotheses are based on it.

Table 14: Correlation analysis of digital literacy and consumer loyalty

Correlations

		Digital Literacy	Loyalty
Digital Literacy	Pearson Correlation	1	.322**
	Sig. (2-tailed)		.000
	N	255	252
Loyalty	Pearson Correlation	.322**	1
	Sig. (2-tailed)	.000	
	N	252	252

**. Correlation is significant at the 0.01 level (2-tailed).

In the table 14, the relation between consumer digital literacy and consumer loyalty is positive with the number 0.322 between 0 and 1, and the correlation is significant because significant value 0.000 is less than P value 0.01.

Table 15: Correlation analysis of digital literacy and consumer satisfaction

Correlations

		Digital Literacy	Satisfaction
Digital Literacy	Pearson Correlation	1	.301**
	Sig. (2-tailed)		.000
	N	255	251
Satisfaction	Pearson Correlation	.301**	1
	Sig. (2-tailed)	.000	
	N	251	251

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in the table 15, the relation of digital literacy and consumer satisfaction positive with 0.301, the correlation also is significant 0.000 as significant value smaller than P value 0.01.

Table 16: Correlation of digital literacy and recommendation intention

Correlations

		Digital Literacy	Recommendation
Digital Literacy	Pearson Correlation	1	.276**
	Sig. (2-tailed)		.000
	N	255	253
Recommendation	Pearson Correlation	.276**	1
	Sig. (2-tailed)	.000	
	N	253	253

**. Correlation is significant at the 0.01 level (2-tailed).

In the table 16, with number 0.276, there is positive relation between digital literacy and recommendation intention of consumers with significant correlation of 0.000 less than P value 0.01.

Table 17: Correlation of digital literacy and purchase intention

Correlations

		Digital Literacy	Purchase intention
Digital Literacy	Pearson Correlation	1	.379**
	Sig. (2-tailed)		.000
	N	255	251
Purchase intention	Pearson Correlation	.379**	1
	Sig. (2-tailed)	.000	
	N	251	251

**. Correlation is significant at the 0.01 level (2-tailed).

The table 17 details the positive relation between digital literacy and consumer purchase intention with 0.379, and 0.000 of significant correlation less than 0.01 as P value.

Table 18: Correlation of digital literacy and trust

Correlations

		Digital Literacy	Trust
Digital Literacy	Pearson Correlation	1	.318**
	Sig. (2-tailed)		.000
	N	255	253
Trust	Pearson Correlation	.318**	1
	Sig. (2-tailed)	.000	
	N	253	253

**. Correlation is significant at the 0.01 level (2-tailed).

The table 18, Shows the positive relation between digital literacy and consumer trust with the number of 0.318, and the correlation is significant with value of 0.000 < (0.01 P value).

Table 19: Results of the hypothesis in summary

Hypothesis No	Hypothesis Statement	Result
H1	Consumer digital literacy has positive relation with loyalty of customers to use mobile apps of coffee brand	**Accepted**
H2	Consumer digital literacy has positive relation with consumer satisfaction of using mobile apps of coffee brand	**Accepted**
H3	Consumer digital literacy has positive relation with consumer intention to recommend the use of coffee brand mobile apps	**Accepted**
H4	Consumer digital literacy has positive relation with consumer intention to purchase coffee	**Accepted**
H5	Consumer digital literacy has positive relation with consumer trust to use mobile apps of coffee brand	**Accepted**

It is clear in the table 19 that all tested hypothesises were accepted according to the results of correlation analysis.

Conclusion and Discussion

Digitalisation skills became very important factors since the first industrial revolution, especially in consumer roles toward brands, people are learning digitalisation by different ways they may learn by friends, by institutions as many started now to include digital literacy program in their education systems, they may also learn through internet by the help of social media. This powerful skills of having feelings to control technology, pushes consumers to make an important evaluation among goods or services. It might be related positively or negatively to consumer willingness to buy products, to be satisfied with brand and so on. So, that is why the study has been conducted to make clear this relationship, and as result this relation between consumer digital literacy and other factors was positive relationship.

According to the output of the survey, most of participants are male while female presented minimum percentage, and married participants were dominated by single, and the majority of respondents were between the age of 18 and 29, because it is expected to get young people in universities more than older people with undergraduate education level the majority of them and they are also the frequently users of the mobile apps. As brand preference by the result, Starbucks is the most frequented coffee brand by the respondents because the brand has many digital marketing strategies for its audiences, then following by Kahve Dünyası as a Turkish coffee firm, this firm also has good reputation, and then canteen at the campus. Starbucks and canteen are likely preferred by

male while Kahve Dünyası is commonly preferred by female. The users of this mobile apps, represents 39.2% of participants while others do not, it might be that the field is beverage industry, so consumers did not pay attention to what is technology innovation of the firm.

About occasions of buying coffee, it is clear that respondents distinguish from one to another; of respondents, 44.3% buy coffee every day while the rest buy flexibly, and most of them are single, this means that young people consume coffee a bit more. It obvious that single of participants consume coffee more than married respondents in each occasion of buying coffee. And the majority of apps users consume coffee daily.

Focused on the responses to the items, the reactions of participants to the mobile apps of coffee brands. About their loyalty to this later in terms of doing much effort to use mobile apps, most respondents agreed to put an extra effort for using it without any regret, also many of them were very proud to tell others that they buy from their favoured brand and doing word of mouth for brands which is one of the key successes of many companies to get more prospects in today's world the fact that consumers do marketing for brands, and they felt loyal to their coffee firms.

As a result of the research, there is positive relation between respondents' satisfaction and their digital literacy level. It means that participants are satisfied with the use of mobile apps due to their high digital literacy level. Because they know how to solve their technical problems and know about a lot of different technologies. Briefly, they got the control of technology which conducted them to be satisfied with the apps of coffee brands.

Participants' intention to recommend also has positive relation with their digital literacy. Knowing that of consumers especially young people are digitally literacy, coffee brands put in place digital marketing strategies to attract those consumers and keeping them by mobile apps strategy and so on. It has been succeeded, because the important number of participants of this research confirmed of having intention to recommend other people to use mobile apps.

Looking at the result, the positive relation that exists between digital literacy and purchase intention of consumers, it shows in fact that of having skills to control technology push them to purchase coffee by using mobile apps to discover more new things about technology, and the creativity that it provides to them. By this kind of

strategy, brands may grow up its market share as the world became digitalised for every age group no exception.

In terms of trust, many of respondents trust to this mobile apps because it allowed them to do a lot of things, including payment, ordering coffee, earning points in order for the coming days to be offered of free coffee or special gifts, they trusted also for the security that it brings, no hacking, keeps the privacy of consumers.

Concerning digital literacy, even if 60.8% of respondents did not use the mobile apps, the rest of them who use it believed and trusted in and they are satisfied with it. And to transform them into loyal customers to always purchase product and recommend it over other prospects. Based on the results of digital literacy questions, 7 out of 10 questions were closed to the agreement point (4) while only 3 out of 10 were closed to the neutral point (3) which means that respondents are at capacity to use different technologies and solving their own technical problems. Despite all of these, the majority of respondents did not use the mobile apps. It could be the fact that, the number of flexible buyers of coffee is higher than the everyday buyers, and this apps is not needed unless you want to buy coffee, so they do forget apps especially when they are pressed by the time, they come quickly to take their coffee and they are gone. Another reason might be the wrong method of advertising by coffee brands at universities. Efforts that company should put in place to avoid these problems. First of all, using e-mail marketing to personalise consumers to announce them the new coming offers, being in contact with them at no buying moment of coffee. Secondly, company might use social media like Facebook, Instagram and so on, by adding the name of university to Starbucks name like “Okan Starbucks”, so when they are surfing something related to the university they would probably have chance to discover the brand, because the targeted audiences are people who are at university specifically students.

The hypotheses discussed above in literature review had to be tested, so the correlation test was used to detected whether or not consumer digital literacy has positive relation with consumer loyalty, satisfaction, purchase intention, intention to recommend, and trust; as result, all of hypotheses have been analysed and accepted with the positive correlation number of each, and correlations were significant with the values of 0.001 < (0.01 P value).

Recommendation

Digital transformation is a phenomenon by which innovations in many sectors are progressing widely and people are fully getting confidence on those technological innovations. According to the results of research, many of respondents ignored the existence of mobile apps of discussed coffee brands. The reason could be the lack of communication of brands to its consumers. Brands may focus on social media tools by adding the name of universities to their announcements to promote products, and the communication strategy of coffee firms at universities should be different from that one exists elsewhere in city. They could use billboard in university court, garden and restaurant with information of mobile apps.

Moreover, by the YouTube video platform, coffee firms could make a pop-up advertising to their audiences while watching video on YouTube to let them know about the apps. E-mail marketing is also an important tool to be considered that influences consumers to have interest in apps and company. It could also trigger the word of mouth among consumers to use mobile apps or at least to know about its existence.

It might be a good idea for next studies to investigate in telecommunication and technology field rather than beverage industry field. Most of this type firm consumers may use company's software, apps or devices frequently.

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ACKNOWLEDGEMENT

Primarily, I would like to express my sincere gratitude to my advisor Prf. Ceyda Ovacı for her continuous support of my master study, her immense knowledge, enthusiasm, guidance helped me a lot in my research and writing thesis. I could not have imagined of having a better advisor for my thesis, it is an immense pleasure for me to meet you, thank you so much.

My sincere thanks also go to all my friends inside Turkey and outside who helped me with suggestions to achieve my thesis purposes.

Finally, my big thanks to all my family, with their advices and motivation of encouraging me every day pushed me to work hardly for this thesis, especially my mother, many thanks for your blessing, thank you for everything.

APPENDICES

Dear Participant,

This study aims to measure consumers' responses to digital transformation and brand's digital marketing strategy. As you know, Starbucks and Kahve Dünyası have mobile applications to order coffee or to make payment and collect stars to get free coffee or discount. We would like to learn your attitude towards the coffee shops' application. Please reply with your preferred coffee brand in mind.

There is no right or wrong answer to any question. Careful filling of the questionnaire is important for achieving correct results.

What is your gender?

a. Male
b. Female

Marital status

a. Married
b. Single

Which category below includes your age?

a. 17 or younger
b. 18-20
c. 21-29
d. 30-39
e. 40-49
f. 50 or older

Which one is your education level?

a. Undergraduate
b. Master degree
c. PhD degree

Which coffee brands do you prefer to buy beverages from at the campus?

a. Starbucks
b. Kahve Dünyası
c. Canteen
d. Other (Please explain): ……..

Do you use coffee brands (Starbucks/ Kahve Dünyası) mobile applications for payment or ordering)?

a. Yes
b. No

How often do you buy coffee?

a. Everyday
b. Once or twice a week
c. Once a month
d. Not at all
e. Other (Please explain): …….

Please mark the most appropriate for you from 1 to 5.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	As a consumer of coffee brands, I am willing to put in extra effort to use mobile applications.	5	4	3	2	1
2	As long as the product is similar, I could just as well be buying from a different firm/ brand.	5	4	3	2	1
3	I am proud to tell others that I buy product from this firm.	5	4	3	2	1
4	I would recommend this brand to others.	5	4	3	2	1
5	I feel loyal to coffee brand that I prefer to buy from.	5	4	3	2	1
6	Coffee brand that I prefer is the best coffee company alternative	5	4	3	2	1
7	I expect to buy from coffee brand that I prefer for a long period of time	5	4	3	2	1
8	I am very satisfied with the overall experience of using the coffee brand application.	5	4	3	2	1

9	I am very pleased with overall experience of using the coffee brand application.	5	4	3	2	1
10	I am very contented with overall experience of using the coffee brand application.	5	4	3	2	1
11	I feel very delighted with overall experience of using the coffee brand application.	5	4	3	2	1
12	Overall, I am very satisfied with the coffee brand that I prefer.	5	4	3	2	1
13	I intend to say positive things about the application	5	4	3	2	1
14	I would say good things about the application	5	4	3	2	1
15	I would recommend the application to other people	5	4	3	2	1
16	I intend to encourage other people to use the application	5	4	3	2	1
17	The probability that I would consider buying coffee from the brand is high.	5	4	3	2	1
18	My willingness to buy from the coffee brand is high	5	4	3	2	1
19	The likelihood of my purchasing from the coffee brand is high	5	4	3	2	1
20	I trust mobile application of coffee brands to be reliable.	5	4	3	2	1
21	I trust mobile applications of coffee brands to be secure	5	4	3	2	1
22	I believe mobile applications of coffee brands are trustworthy.	5	4	3	2	1
23	I trust mobile applications of coffee brands.	5	4	3	2	1
24	Even if the mobile applications are not monitored, I would trust them to do the job correctly.	5	4	3	2	1
25	I know how to solve my own technical problems	5	4	3	2	1
26	I can learn new technologies easily	5	4	3	2	1
27	I keep up with important new technologies	5	4	3	2	1
28	I know about a lot of different Technologies	5	4	3	2	1
29	I have good information Communication Technology (ICT) skills	5	4	3	2	1
30	I have the technical skills I need to use technology for learning and to use mobile applications that demonstrate my understanding of what I have learnt	5	4	3	2	1
31	I am confident with my search and evaluate skills in regards to obtaining information from the Web	5	4	3	2	1
32	I am familiar with issues related to web-based activities e.g. cyber safety, search issues, plagiarism	5	4	3	2	1

33	Technology enables me to collaborate better with my peers on Project work and other learning activities	5	4	3	2	1
34	I frequently obtain help with my university work from my friends over the internet e.g. through Skype, Facebook, Blogs	5	4	3	2	1