To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?

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Declaration

Declaration: I, Daiane Leal Gomes, declare that this research is my original work and that it has never been presented to any institution or university for the award of Degree or Diploma. In addition, I have referenced correctly all literature and sources used in this work and this work is fully compliant with the Dublin Business School’s academic honesty policy.

Signed: Daiane Leal Gomes

Date: 21/08/2015
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Four years ago if I was told that today I would be finishing my Masters course I would not believe it. I arrived in Ireland with no English, but full of dreams. Living abroad was my plan since I was very young and I always wanted to see beyond my boundaries. However, it went far better than I expected or I could ever dream of.

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“If you believe in yourself and have dedication and pride - and never quit, you'll be a winner. The price of victory is high but so are the rewards”.

Paul Bryant
Abstract

Living in the internet age, any personal information we reveal and every action we take online is being recorded, processed, and analysed to generate enormous quantities of data. Any information, including our ages, interests, favourite music and movies, contacts, location history, online searches, email, and telephone communications are being exploited in order to improve marketing efforts by large corporations. They are being logged by Data Collectors from our phones, apps, web services, operating systems, and web sites that we use. The data is then used by both the organisations that collect it and also sold on the open market by Data Brokers. The quantity of data collected, processed and analysed has given rise to the name for this practice: big data.

Big data, and its application to the marketing world, Data-Driven Marketing, has revolutionised advertising and customer acquisition. The ability to interrogate big data sets to identify audiences, perform predictive market research, and target specific demographics, groups, or individuals allows businesses to optimise the use of their marketing budgets. From improving the conversion rate of advertising to informing and validating corporate strategy, decisions are increasingly being based on big data insight. Although consumers do benefit from some aspects of big data, such as the provision of free, advertising-supported services (such as Google, Facebook, Twitter, et cetera) and personalisation of services (such as predictive text input, suggested searches, anticipated navigation directions), it comes at the cost of decreasing privacy and increasing corporate surveillance.

As public awareness of the collection and use of their data for marketing purposes rises, big data is becoming a hot topic. There is now an interest in data protection, the right to privacy, and the ethicality of collection practices. Consumers no longer have control of their personal information, and they may not be aware of that their data is being collected and processed for marketing purposes.

This research aims to answer the following question “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?”. In order to achieve this objective, a survey was conducted in Dún Laoghaire-Rathdown area, an affluent part of Dublin. From the responses collected, it is possible to answer the research question and test the hypothesis above. This paper also will present the limitations of the research and highlight the results with conclusions drawn at the end.
1. Introduction

“Individuals should be in a position to control how data relating to them is used”

1988 Data Protection Act - Data Protection Commissioner

The explosive growth of internet use of the past two decades has created a new way for marketers and advertisers to collect data about consumers. Companies have begun to gather and analyse large amounts of information from internal and external sources (Richards and King, 2014). This has provided new capabilities and opportunities for efficient targeted marketing (Fulgoni, 2013). The increasing use of smartphones and mobile internet-connected devices means that consumers have constant access to online services. These services, such as social media and location-aware utilities, generate huge volumes of personally-identifiable demographic and behavioural information (Nunan and Di Domenico, 2013). This information can be collected and processed for marketing purposes due to the falling cost of computer processing and data storage (Post and Edmiston, 2014).

The data collected from customers, once it has been processed and analysed has been called big data (Moorthy et al. 2013; George et al. 2014; Richards and King 2014). Big data is the newest buzzword which is used to describe a huge volume of structured and unstructured data (Joshi, 2015). Although, Joshi (2015) explained that big data has been here for a long time, the difference now is that it is applicable to enterprises helping them to improve operations and make quick, and more intelligent decisions. The many insights derived from data can be used for good or for ill, but these insights are costing an individual their autonomy (Jerome, 2014).

Moreover, with the rise in big data, the data-driven marketing economy has emerged. The data brokers, businesses that buy, process, and sell big data (Terry, 2015) generate revenue by searching through government records, purchasing histories, social media posts and so on, building extensive data profiles and selling to retailers and advertisers (Richards and King, 2014). To do this, data brokers compile profiles of individuals containing demographic, behavioural, interest, and location information. Another way to collect users’ information is through the block of data placed on a user’s computer by a web server, the so-called “Cookies”. The cookies provide to the website owner a profile of an individual user’s browsing habits, and if possible it is done without their knowledge or consent (Data
Protection Commissioner, no date1). Even if permission has been given, consumers may not understand or be capable of understanding the extent of the data collected and its use in advertising (Nunan and Di Domenico, 2013). The fact that individuals have little idea about what data is being collected from them became a threat as they have no control over their information shared. According to Richards and King (2014) many of the most revealing personal data such as location history, social network connections, search history, purchase history and so on are already possessed by companies and governments. Therefore, if the individual does not know what use companies are making of their information, they are unable to delete, alter, or move anything revealed before (Tsesis, 2014).

On the other hand, consumers do benefit from some aspects of big data, such as the provision of free, advertising-supported services (such as Google, Facebook, Twitter, et cetera) and personalisation of services (such as predictive text input, suggested searches, anticipated navigation directions). Thus, the same data that is used to provide better services to customers and drive businesses is decreasing privacy and increasing corporate surveillance. Moreover, regulations about data privacy are not globally uniform, while Europe has established more strict regulations to safeguard personal information against corporate abuses and creating a great concern about consumer control over their data, the United States concentrates its efforts against surveillance (Thesis, 2014). The Data Protection Commissioner (no date1) requires that when personal details are provided to an organisation they have the obligation to keep the details private and safe. They also have responsibilities in how they handle this data.

1.1. Research Objectives

This study aims to measure consumer sentiment towards the control they have of their private data. The purpose of this study will be to answer the following question:

To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?
Sub-questions also will be answered in order to focus the study:

- **Are consumers aware of the extent of the information collected from them in their day-to-day activities?**

- **Are consumers aware of their statutory rights when it comes to data protection and privacy?**
- **Are consumers aware of how this data is processed and shared by advertising companies for marketing purposes?**

This dissertation attempts to answer these questions by surveying consumer attitudes and behaviour. It tries to determine whether the average consumer is aware of the data collection and targeted marketing practices of the advertising industry; what their sentiment is towards those practices; whether they are aware of how they can learn about the use of data collected from them, and whether they can have informed knowledge about it.

In order to achieve the study objectives, a survey was conducted by means of a face-to-face questionnaire, containing 28 questions, divided in 5 sections: demographics; information sharing; online activity; data protection; and key questions. The analysis of consumer awareness in relation to their data privacy was limited only to Ireland, more specifically in South County Dublin, an affluent area with a large number of consumers. This allowed an in-depth study of the subject from the point-of-view of a technologically-engaged population. According to the information on the Central Statistics Office (2014) in 2014 the percentage of people in Ireland that used the internet in the last three months of the survey was 80%; 4% have not used it in the last 3 months; and only 16% have never used the internet before. The number of internet subscribers in Ireland is expected to increase from 1.2 million in 2013 to 47.4% in the time period of 2014 to 2030, and Ireland has a growing smartphone penetration with 4.8 million subscribers in 2013, which has been driving a steady increase in social networking and consumption of digital media (Euromonitor, 2014).

The study also presents some hypotheses:

- **Highly educated people are more selective on the amount of information they are sharing online.**
• Younger people are more aware of their information being used for marketing purposes.

• Wealthier people are more aware of their data protection rights.

In the study the hypotheses were tested through correlations between two variables:

• Education Level with participant’s willingness in information sharing.

• Age group with awareness of data collection practices.

• Income with awareness of data protection rights.

1.2. Dissertation Structure

The seven chapters of this dissertation are designed to not only achieve the study aims, but also to provide an understanding of how the research was conducted and planned. This first chapter is an introduction of the dissertation theme and its purposes.

Chapter 2 – Literature review – The literature review is broken down into 5 topics: Big Data; Data-driven Marketing; Big Data, Marketing & Ethics; Data protection; and Consumer awareness. The literature review topics were chosen carefully in order to help the author identify gaps in the study and complete these with work from other researchers.

Chapter 3 – Research Methodology – The research methodology and methods were carried out based on the “research onion” by (Saunders et al. 2012, p. 128): research philosophies; research approaches; research strategies; data collection instruments, data analysis and time horizon. The data collection methods were specified with an explanation of how it applied to this study. Also highlighted were the implications and the research ethics.

Chapter 4 – Data Analysis/Findings – This chapter presented the data analysis and findings of the data collected through the survey. The hypotheses were also tested.

Chapter 5 – Discussion – In this chapter the results of the findings were interpreted and the research question and sub-questions were answered. Also, a discussion was made of the
hypotheses correlated in the previous chapter. At the end the limitations of the study were presented.

Chapter 6 – Conclusions/Recommendations – This section presents the overall conclusion of the study, along with recommendations for next steps to continue the research.

Chapter 7 – Reflections – This chapter is a critical self-assessment section, with reflections on the dissertation process and in the Master’s program. It highlights the author’s learnings, limitations, challenges, and career plans.

1.3. Study Contribution

This research gave the author a desire to expose to those the underlying marketing mechanisms to users that receive a letter, SMS or email about a product that they have showed interest in the past or that fits their lifestyle. They might ask how companies know so much about them and have access to their personal information. They cannot imagine that their daily basic activities such as talking to friends through social media, checking their email, making phone calls, using GPS, subscribing to retail loyalty cards, making an online search, et cetera are generating an enormous amount of information about them. This allows them to be targeted by marketing campaigns. This issue is not a new subject and it is regularly discussed in the Irish newspapers with articles about data protection, Big Data and giant technology companies in trouble because of data breaches. However, in this dissertation the focus will be specifically on the consumer. From analysing their feelings and awareness, new solutions might be brought forward to the marketers to do the digital marketing in a more ethical manner. Also, it is important to update previous research allowing new alternatives to be considered.
2. Literature Review

A review of literature will be able to identify the theories and previous research that have influences on the choice of the research topic and methodology (Ridley, 2008, p.3), the review will also help the researcher to have a better understanding about the chosen topic; discern what has been done and what needs to be done in this study; and gain new perspectives (Hart, 1998, p.27).

The literature review topics were chosen carefully in order to help the author identify and fulfil gaps in the study from other researchers,. A topic related to data-driven marketing is a new area which will be reviewed in order to understand how the data collection practices became a business.

A further point regarding data protection will be necessary to comprehend why consumers should be concerned about their private data. The focus of this research is on Irish consumers and their right of privacy. An overview of Irish regulations for data protection will be also studied.

Hence, big data and its ethics will be reviewed and analysed and how it is being used for marketing purposes. However, to complement the research it will be important to review what previous researchers have found regarding consumers awareness of their personal information being collected with or without their consent. This general analysis will help to understand consumer behaviour towards privacy concerns. Also, the study focuses on how marketers are using this tool to maximize the return on investment.
2.1 Data-driven Marketing

Data-Driven Marketing is a relatively new term, but has become to marketers and brands a new component for their advertisement campaigns and strategy. In traditional marketing and also with direct marketing it is possible to build a relationship with consumers through email, mobile marketing, customer loyalty schemes, apps, social media and so forth. However, response tracking and segmentation are important elements for marketing but Data is the “golden word” (IDMA, no date). Some of the reasons that data is valuable to brands is the fact that it can be relied on to provide high quality products and services, in addition the consumers’ willingness to share data will progressively shape brand perceptions and brand loyalty (Microsoft, 2015a). Moreover, the data allows marketing companies to know as much about groups and individuals as possible, to correlate the data in order to directly sort people into niches to market them (Vaidhyanathan and Bulock, 2014). The correlation analysis of big data allows the data itself to tell what the questions and hypotheses are, yet the implication of correlation challenges marketers to look at data differently and more broadly (Post and Edmiston, 2014). Within data-driven marketing strategies, more business decisions are being made based on data, rather than on previous experiences and marketing hunches (Moorthy et al. 2015).

It is possible to analyse Data-Driven Marketing in Ireland through a study about ‘Data-Driven Marketing and Advertising practices’ conducted by GlobalDMA (2014) in association with The Interactive Direct Marketing Association (IDMA) which leads the practices for Data-Driven communication. The survey had 31 respondents and some of the findings were:

- Irish Data-Driven Marketing and Advertising (DDMA) practitioners increased their investment on digital media execution, analytics, and data management in the past year and plan to continue grow their spending on creative and content.
- In a question related to the importance of data to the Irish respondents marketing and advertising efforts, they said that data is becoming “substantially more important to their efforts”.
- Irish respondents were extremely confident on the role of data as driver of their respective activities. They are motivated by a desire to be more customer-centric or communicate with customers in more relevant ways.
The survey also demonstrated that some issues inhibiting DDMA advancement in their market are poor understanding of practices and the benefits.

Irish respondents reported that they are generally less affected by oppressive regulation than most of their global peers. On the other hand, 16.7 percent of Irish respondents said that regulatory barriers limit their DDMA efforts.

Furthermore, the data collections can be obtained from data brokers that have a special role on the online system and are invisible to users (Martin, 2015). These data-processing companies collect, aggregate, analyse, repackage and sell information about individuals from online and offline sources such as loyalty programs, email, personal websites, social media, search terms, purchase history and so on (Anthes, 2014). The data collected may be sold to researchers, government agencies, survey firms and so on. Marketing companies can also hire the brokers to place an advertisement on a website when a user returns to browse or shop online (Martin, 2015). In Anthes (2014) article ‘Data Brokers are watching you’ The Federal Trade Commission (FTC) made a statement in the U.S. “They (data brokers) know where you live, what you buy, your income, your ethnicity, how old your kids are, your health conditions, and your interests and hobbies.” In the U.S. the FTC went in defence of consumers calling for a legislation that would give them access to data brokerage practices and more control over their own information, the suggestion was that consumers could have access to a centralized portal created by brokers where they could see all their personal information and opt out of having it be used. In defence of Anthes (2014) article the Direct Marketing Association made a statement when asked if the actions of data brokers raise legitimate privacy concerns, “No. Marketing data used responsibly for marketing purposes is a consumer benefit, providing much of the value in our data-driven lifestyle”.


2.2. Big Data

“We’re entering a world where data will be the cheapest commodity around, simply because the society has created systems that automatically track transactions of all sorts. For example, internet search engines build data sets with every entry. Twitter generates tweet data continuously, traffic cameras digitally count cars, scanners record purchases, RFIDs signal the presence of packages and equipment, and internet sites capture and store mouse clicks. Collectively, the society is assembling data on massive amounts of its behaviours...”

(Robert Groves, 2011 cited in Gabel and Tokarski, 2014)

Consequently, the data that is being collected and used for many businesses and to drive marketing has been called “big data” by technologists, researchers, the media and politicians (Nunan and Di Domenico, 2013). Yet, big data and analytics are becoming fundamental tools to support strategic, managerial and operational decision-making in order to strengthen business and customer relationships (Davis, 2014).

To better understand big data, it is important to clarify what it stands for. In George et al. (2014) definition “Big data is generated from an increasing plurality of sources, including Internet clicks, mobile transactions, user-generated content, and social media as well as purposefully generated content through sensor networks or business transactions such as sales queries and purchase transactions.” Nunan and Di Domenico (2013) simplify big data as a large volume of data being created. For Jerome (2014), big data represents an increase in the volume, variety, and velocity of data that can be analysed. However, to analyse and deal with big data it is essential techniques that include database management, particularly data warehousing, data mining, dashboards and associated technologies (Davis, 2014).

Examples of the use of big data come from online giants such as Facebook, Amazon, Google, eBay, and so forth that are relying on big data in their business models. They are collecting and analysing the data of all activity generated by individuals’ phone calls, movement of the smartphones, and online activity (Booch, 2014). Moreover, the loyalty programs famously used by retailers to reward customers with points, prizes or cash have been a powerful tool for marketers to increase their capacity to capture, store and manage data and information on
customer behaviours (Schultz, 2014). Customers might see loyalty programs as a high benefit to them. However, many customers do not realize what giving up even a small piece of personal information can actually reveal about them and in many cases their information is not secure enough (Blackmon, 2015).

### 2.3 Big Data, Marketing & Ethics

*Big data* has been revealed to be efficient in different types of businesses in order to drive decision-making but it is specially playing an important role for marketers. Therefore, the use of big data is being criticized as a breach of privacy and its ethical practices. Marketers are using the data combinations for new predictions and generalizations, and even for targeting individuals for products they did not know they needed (Martin, 2015). According to Newman (2014) the use of profiling generated by data collection also facilitates advertisers to charge a variety of prices to different customers for the same goods or services, based on the reality that people have different ranges of prices they are willing to pay. Economists call this practice “price discrimination” that allows companies to increase profits. Newman (2014) argued that the “price discrimination” also apply to web coupons offered to some customers but not others based on their behaviour and demographic data. Nevertheless, the use of data for marketing strategies is a smart decision, but marketers are often overwhelmed with the data opportunities available to them (Post and Edmiston, 2014). Therefore, sometimes wrong interpretation of data can lead marketers to take wrong conclusions because of interpretive bias, cultural variations, segment size and another pitfalls that come across by the excessive trust on numbers or exclusion of other relevant information (Marsh and Bloom, 2013).

The data collection practices can be divided into two types: a) Informed consent where the individual has the choice to accept the collection, handling, and processing of data, b) “while anonymization promises to render privacy concerns irrelevant by decoupling data from identifiable subjects” (Barocas and Nissenbaum, 2014).

“Cookies” are one example of anonymization, another tool that has been used by marketers in order to generate massive amounts of data. On the Data Protection Commissioner website (no date1) cookies are defined by a “block of data that a web server places on a user’s PC”. According to Moorthy et al. (2015) cookies are small pieces of code inserted into browsers by ad servers as a way to identify computers and target advertising. Through cookies, websites
such as search engines, online retail stores and social networks can track what the user is viewing, for how long and can also connect the browsing history to previous search history and algorithmically develop a profile for marketing purposes (Tsesis, 2014). The usage of cookies on the computer may be accepted by the user or installed by default from the Internet browsers, but the user might not be aware of its activities (Moorthy et al., 2015). However, the user can erase the cookies from its browsers otherwise they would remain in the machine indefinitely; also they have the option to reject or block cookies but many websites refuse to provide services without accepting the cookies (Tsesis, 2014).

In summary, big data has been playing an important role to drive businesses, it has effectively improved national security, reduced credit risk, improved medical research, and made marketing more effective (Martin, 2015). However, the point here is how the data is being managed by data-processing companies and businesses that rely on big data for data-driven decision-making. Therefore, big data itself is not the “bad guy” but it has implications related to consumer data protection; right of privacy; and basic ethics. The fact that big data is being collected innocuously from individuals’ online activity, phone calls and movement of their smartphones without their knowledge and consent makes the moral and ethics of data collection and marketer’s practices questionable (Booch, 2014). On the other hand, Richards and King (2014) argue that everyone wants to share information with companies to provide better services with big data, although this requires thinking more broadly about big data and “ethics, norms, and legal protections to prevent important societal values like privacy, confidentiality, transparency, and identity from becoming subordinate to the new capabilities of big data”. Nunan and Domenico (2013) also agree that with big data the relationship that individuals have with data collected about them changes significantly.
2.4. Data protection

“data protection...suffers from an unenviable reputation, perhaps not wholly merited, but nevertheless important to understand...To say that it is little known or understood by the public, regarded as a regulatory inconvenience in the business world, and viewed as marginal and technical among legal practitioners (including by our higher courts), might be regarded as a little unfair by the more well-informed, but is perhaps not so far from the truth”


There is no doubt that not just businesses can benefit from the personal information that they have collected from us but we can also have advantages in sharing some of our data, for example, the Irish State wants to process citizens data to become more efficient and effective; the Gardaí process personal data to investigate crime and prosecute offenders; airlines process data to market and sell flights and so on (Kelleher, 2015). However, the sharing of large amounts of data and use of personal information is breaking down some of society’s most common concepts of privacy (Blume 2015). The Irish Data Protection Commissioner website (no date1) states that “Data protection is about your fundamental right to privacy”. Even though data protection law compared to other legal fields is still relatively new, conservatism and caution prevail in this area as it confronts the necessity to fundamental changes (Blume, 2015).

Data protection and concerns about privacy is a global matter but can present different regulations in different regions. Kugler (2015) highlights that “the EU is concerned with anyone that collects and tracks data, while in the United States the larger concern is government surveillance”. Kugler also pointed out that these different regulations about data protection can be a challenge especially for international companies. A good example are the giants Google and Facebook that follow American regulations and come into conflict in jurisdictions where privacy restrictions are tighter. The fact that the U.S. is highly concerned about government surveillance leaves users powerless to prevent dissemination of their private information they once shared online; the consent-based privacy regime allows merchants, databanks, and other electronic aggregators to decide on the data’s future uses (Tsesis, 2014). At the same time, since 2009 the Federal Trade Commission began exploring
data-privacy by holding a series of forums and by collecting written comments. They have recommended to the U.S. Congress to pass legislation that limits the data brokers’ practices and their clients (‘Internet Law: Regulatory And Litigation Matters’, 2014). The FTC is a two-party federal agency that aims to protect consumers and promote competition; they conduct investigations; sue companies and people that violate the law; develop rules; and educate consumers and businesses about their rights and responsibilities (Federal Trade Commission, no date). In Ireland the Data Protection Commissioner is responsible for protecting the rights of individuals according to the Acts 1988 and 2003, and enforcing these obligations on data controllers.

A good example of different approaches regarding data privacy concerns is through the use of “cookies”. In the U.S browsers allow the user to enable a “Do Not Track option”, and in the EU since 2012, websites have been required by law to have an “informed consent” by the user before setting a cookie into their browser (Kugler, 2015). The primary result of this is informally called the “cookie law” which has caused cookie warnings which are now ubiquitous on websites in the EU. On the subject of anonymization as previously reviewed, the EU’s independent privacy advisory panel recently offered guidance about anonymization techniques where individuals can no longer be identifiable, the data must be made anonymous, in this case European data protection law no longer applies (Voss, 2014). In addition, Barocas and Nissenbaum (2014) argue that consent, along with anonymity, does not have a part to play in privacy protection. Even though the role of consent in relation to the collection and use of personal data is important, their limitations mean that they can only effectively work inside a regulatory framework which protects the right to privacy at fundamental level.

Hence, in Kelleher (2015) ‘Privacy and data protection law in Ireland’ study, explained that the right to privacy is embedded in the Irish Constitution and also is a right that Irish people could take very seriously. Furthermore, “Individuals who feel their rights are being infringed can complain to the Commissioner, who will investigate the matter, and take whatever steps may be necessary to resolve it” (Data Protection Commissioner, no date1). In order to inform individuals of their rights and responsibilities the Data Protection Commission’s website offers guidance, which are in summary:
- Individuals have the right to data protection when the details are held on a computer; on paper or on forms that are part of a filing system; photographs or video recordings of image or voice.

- The rights apply when a person or organisation takes and records personal details. The data controllers must get and use the information fairly; keep it for only one or more clearly stated and lawful purpose; keep the information safe; make sure that the information is factually correct, complete and up-to-date; make sure that there is enough information – but not too much - and that it is relevant; keep the information for no longer than is needed for the reason stated; and supply a copy of the individual data if personally requested.

- Individuals can request data controllers not to use their personal details for purposes other than their main purpose – for example for marketing.

- For direct marketing purposes organisations must get individuals’ permission before they contact through phone call, mobile text messages or email. If the person does not want to receive direct marketing they should request an ‘opt-out’ register on the National Directory Database (NDD).

In addition, for a fair data collection it will be necessary to know the identity of the data controller; the purpose or purposes for which the data is intended to be processed and any other information that is necessary to enable the particular processing to be fair. Further information will be required if the data controller is located outside of the European Economic Area (Carey and Carey, 2009, p.59). To avoid pitfalls marketers should consider regulations on data protection at a National, European and International level.

2.5. Consumer awareness

Few studies have been conducted regarding consumer awareness of the collection, analysis and possible sharing with third parties of their private information. According to Gilbert (2015) advertisers, marketers, and other companies that benefit from advertising revenues state that most people would give away their personal details in exchange for anything, even a t-shirt. However, he affirms that the idea that individuals have no interest in privacy is
changing. Corrigan et al. (2014) also agrees that with technology, consumers can now interact more with companies, they want a vast option of choices of services and goods. He also pointed out that because of the advances in technology the concerns about privacy and security have increased. Yet, in the Irish scenario the Data Protection Commissioner (2014) stated in its annual report that in 2014 they received 960 complaints versus 910 complaints in 2013, most of them were related to access requests which reflects public awareness regarding the right of access to data held about them, and the second series of complaints were attributed to electronic direct marketing (See figure 1).

Figure 1. Breakdown of complaints by data protection issue 2014

<table>
<thead>
<tr>
<th>complaint</th>
<th>Percentages</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Rights</td>
<td>54.3%</td>
<td>521</td>
</tr>
<tr>
<td>Electronic Direct Marketing</td>
<td>18.3%</td>
<td>176</td>
</tr>
<tr>
<td>Disclosure</td>
<td>7.2%</td>
<td>69</td>
</tr>
<tr>
<td>Unfair Processing of Data</td>
<td>5.0%</td>
<td>48</td>
</tr>
<tr>
<td>Internet Search Result Delisting</td>
<td>3.3%</td>
<td>32</td>
</tr>
<tr>
<td>Use of CCTV Footage</td>
<td>3.0%</td>
<td>28</td>
</tr>
<tr>
<td>Excessive Data Requested</td>
<td>3.0%</td>
<td>28</td>
</tr>
<tr>
<td>Unfair Retention of Data</td>
<td>1.6%</td>
<td>15</td>
</tr>
<tr>
<td>Accuracy</td>
<td>1.1%</td>
<td>11</td>
</tr>
<tr>
<td>Failure to secure data</td>
<td>1.0%</td>
<td>10</td>
</tr>
<tr>
<td>Postal Direct Marketing</td>
<td>0.9%</td>
<td>9</td>
</tr>
<tr>
<td>Right of Rectification</td>
<td>0.5%</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>0.8%</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>960</strong></td>
</tr>
</tbody>
</table>

At a European level, the European Commission (2015) conducted a survey in 2015, the Eurobarometer, in order to enable European citizens and businesses to benefit from the digital economy. The survey was conducted face-to-face with 27,980 respondents in the 28 Member States of the European Union. It was designed to support the finalisation of the data protection reform with the view of EU citizens about their data protection. The main findings regarding to consumer awareness and concern about their data showed that 69% of people want their approval required in all cases before their data is collected and processed. The participants also stated that the responsibilities for how their data is being managed are shared between online companies (67%), individuals themselves (66%), and public authorities (55%). Moreover according to the survey, seven out of ten people are concerned about their information being used for a different purpose from the one it was collected for, and the majority of people are uncomfortable about online marketing companies using information about their online activities to tailor advertisements. Therefore, the Eurobarometer has shown a high awareness and concerns of the EU citizen about data protection. In contrast, this study will only demonstrate the Irish consumer perspective and sentiment about their private data.

On a global scale, research conducted in 2013 by Microsoft (2015b) about ‘Digital Trends’ found that 30% of consumers said they were aware of companies benefiting from their personal data and they knew how to extract value in return. In 2015, 32% of the participants confirmed this statement. The same research showed that 39% of global consumers are happy for brands to collect and analyse data to optimize shopping or services, participants said that they do not mind to share their information as long they will benefit from it in terms of time-saving for example. The research was fielded in diverse countries, in 2014, with 13,200 online respondents between 16 to 54 years old and it was conducted with qualitative and quantitative methods. Another study also provided by Microsoft (2015a) ‘The Consumer Data Value Exchange’ shows that 49% of consumers interviewed are aware that their data is being collected but they do not know how to create value from their information. The study was conducted with 72 qualitative interviews and 23,752 online participants.
2.6 Literature Conclusion

The literature review presented was based on studies from journal articles. The themes selected have an important influence on this dissertation in terms of research philosophy and research strategy. Moreover, it was important to understand the role of big data and how it is affecting the customers' personal privacy or even bringing some benefits to them. An overview on ethical issues, privacy law and how the data collected is being held and used by firms explains the impact of using this private data could/would cause for the consumer. From the literature that was reviewed, it was found that the Data Protection Commissioner Website works for the right of privacy; many Irish people might not be aware of its existence.

Additionally, the literature review covered surveys conducted by the European Commission, and by Microsoft. Those surveys allowed to observe in a European and global perspective how consumers are concerned about their information sharing and their data protection. Both surveys had similarities with this study, however their focus were wider, whilst in this dissertation the focus is on Ireland. In 2013 the Data Protection Commissioner also conducted a survey in Ireland about data protection awareness, which will support this study in order to make comparisons and analyse the current scenario.

This dissertation aims to test the Irish consumer’s awareness about their personal information being collected, processed and possibly being distributed unknowingly. It also tests whether or not they agree with these practices, and if being targeted by digital marketing campaigns affected their lives. It may also discover a more ethical way that marketers can utilise data on their side without affecting individuals’ right to privacy.
3. Methodology

The research methods and methodology of this study will measure consumer awareness and sentiment on the amount of and type of personal data that is being collected from consumers and being used by companies to target them for marketing efforts. Therefore, in order to answer the research question “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?”, the primary research will be carried out based on the five layers of Saunders et al. (2012, p. 128) “research onion” (See figure 2): research philosophies; research approaches; research strategies; data collection instruments, data analysis and time horizon. In this section, the methodology of data collection will be specified, with an explanation of how the research methods will apply in this study. Furthermore, the implications and the research ethics will be also evaluated.

Figure 2: Research Onion.

Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2009.
3.1. Research Design

The research design is the general plan of how the research will be carried out to answer the research question. Saunders et al. (2012, p. 159) suggests that the research design should contain clear objectives from the research question, details of the data collection, and the limitations and inevitable ethical issues. In addition, Hart (2006, p.334) states that designing the research means paying careful attention to integrating a number of elements into the research.

3.1.1. Research Philosophy

The research philosophy adopted is sure to be influenced by the researcher’s view of the relationship between knowledge and the process by which it is developed (Saunders et al., 2009, p. 108). In the case of data privacy concerns, the author can be influenced by the biases and their personal circumstances. Johnson and Clark (2006, cited in Saunders et al., 2009, p. 108) argue that it is important to defend the philosophical choices in relation to the alternatives that could have been adopted. There are four research philosophies suggested in the 'onion': Positivism, Realism, Interpretivism, and Pragmatism. They provide a view on which way the knowledge is developed and judged as being acceptable (Saunders et al., 2003, p. 83).

**Interpretivism** aims to capture the rich complexity and uniqueness of social situations (Saunders et al., 2009, p.116). Therefore, the researcher cannot get an objective view because they are part of what they are studying (Walliman, 2011, p. 74).

**Realism** is based on the belief that a reality exists that is independent of human thoughts and beliefs (Saunders et al. 2003, p. 83).

**Pragmatism** is an approach which is attractive to researchers as it avoids engaging in debates about concepts such as truth and reality, focusing on what is valuable to them and use the results that can bring positive consequences to their value system (Tashakkori and Teddlie,1998 cited in Saunders et al., 2009, p. 109).

**Positivism** looks at society as the focus for research, and through understanding its internal laws and relevant facts seeks to understand how and why individuals behave as they do.
A combination of Positivism and Pragmatism are the research philosophies that best apply in this dissertation. Through Positivism, the researcher is able to come to understand consumers' feelings and behaviour towards private information supplied; its uses in marketing; and its possible disclosure, by analysing the data collected. The Positivism approach builds hypotheses from existing theory. In this study the hypotheses will be tested and confirmed, which may lead to further development of new theory.

In addition, Pragmatism also applies to this study due to the fact that the research question is an important determinant of the research philosophy. It also suits the authors' aims to do a practical approach involving collecting and interpreting data.

### 3.1.2. Research Approach

There are two approaches suggested by Saunders et al. (2012, p. 143) that can be adopted for data analysis: the Deductive approach to test hypothesis and Inductive approach to build a theory.

The research approach that better suits this dissertation is **Deductive** as the main expression of the positivist approach to research is to test a hypothesis (Riley et al., 2004, p.10). According to Saunders et al. (2012, p. 144-145) the Deductive approach starts with a theory, developed from literature review and a research strategy to test the theory and hypothesis. However, the research seeks to explain the casual relationship between concepts and variables. The deductive approach also can be attached to research philosophies and is much more aligned to positivism (Saunders et al., 2009, p. 124).

Combined with the research strategy the deductive approach will test the hypotheses below. Moreover, the hypotheses will provide the study focus and can enable the researcher to add to the formulation of theory, and also conclude what is true or what is false (Riley et al., 2004,
highly educated people (those with postgraduate degrees) are more selective on the amount of information they are sharing online.

- Younger people (those under 35 years old) are more aware of their information being used for marketing purposes.
- Wealthier people (those with an annual income higher than €50,000) are more aware of their data protection rights.

3.1.3. Research Strategy

Saunders et al. (2012, p. 173) states that the research strategy is not just influenced by the research question, but also by the research philosophy; research approach and purpose; concerns with the author’s existing knowledge and experience; amount of time and data available; and the access to potential participants. The strategies that can be undertaken by the researcher are: Experiment; Survey; Archival Research; Case study; Ethnography; Action Research; and Grounded Theory.

The sections above covered the author's research philosophy and research approach choices that aim to answer the research question and test the hypotheses about consumers' awareness and their private information. In order to achieve these research objectives, the author had to collect data from a sample to generate findings, showing to what extent people think or behave in certain way. Therefore, the survey method is the research method that best applies in this study. This method was chosen because it allows the author to collect quantitative data from a representative sample that can be analysed using descriptive and inferential statistics (Saunders et al., 2009, p.144). The survey is also independent and reduces the author’s dependence on other sources for information (Saunders et al., 2003, p.92). The survey was designed to find out how consumers think and what they know about their data protection and their privacy, and their behaviour towards information sharing.

3.1.4. Research Choice

The research strategies can be chosen between quantitative (numerical) and qualitative (non-
numerical) data collection techniques. Suggested by Saunders et al. (2012, p.164-166) there are three analytical procedures that can be undertaken:

**Mono-method** – can be adopted by either the quantitative or qualitative data collection technique.

**Multi-method** – is more commonly adopted by business and management research, providing a richer approach to data collection, analysis and interpretations. This method can be used with more than one data collection technique, but restricted within either a quantitative or qualitative design (Tashakkori and Teddlie 2010, cited in Saunders et al. 2012, p.165).

**Mixed-methods** – it may use quantitative and qualitative research equally. One methodology will be supporting the other. The weight and priority may vary depending on the research project.

Considering the research question, and the survey as research strategy, the research choice for data collection for the dissertation is the **mono-method** using quantitative data to test the theory and hypothesis. The data collection was conducted by questionnaire allowing for better comparison during the data analysis. Further details on the data collection section are below.

### 3.1.5. Sampling - Selecting Respondents

According to Saunders et al. (2012, p.264) the sampling is used when it is not possible or necessary to collect data from the entire population. There are two types of sampling techniques: Probability and Non-probability sampling (See figure 3).

**Probability** - the researchers will make deductions about the relationship between sample statistics and population parameters, allowing the researcher to draw generalizations about the population from the representative sample (Riley et al., 2004, pp. 76-134). According to Saunders et al. (2009, p.203) “with probability samples the chance, or probability, of each case being selected from the population is known”.

**Non-probability** – is the most practical technique but will not allow the extent of the problem to be determined (Saunders et al., 2012, p.281). With non-probability the chance of selection for each element in a population is unknown (Riley et al., 2004, p.76).
This study is best suited to probability sampling as it makes it possible to answer the research questions and achieve the objectives that have statistical characteristics (Saunders et al., 2009, p.203). However, probability sampling would require that the author obtain a list of the target population, and it would not be possible for this study to acquire a complete list of the residents of the Dún Laoghaire-Rathdown area. As it is impossible to get such a list, non-probability sampling is the technique applied in this study.

Non-probability sampling can be taken by three methods: convenience where the sample is taken from whoever is available; snowball, where small groups are the focus (Riley et al., 2004, p. 87); and the quota technique, normally used for large populations, as it is less costly, and can be set up very quickly (Saunders et al., 2012, p.285).

However, the non-probabilistic method engaged the research through the quota sampling technique, where the population targeted were chosen for certain known characteristics interpreted in terms of their proportionality (Riley et al., 2004, p. 85). In this study the target sample were selected because of their characteristics of high income (> 50,000) and high
education level (postgraduate degree). According to Riley et al. (2004, p. 155) the quota sampling can present a disadvantage during the survey process, as certain groups of people do not frequent the streets or shopping areas at particular time of the day.

In order to answer the research question “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?” the sample size was expected to be 300 questionnaire answers from consumers concerned about their privacy, especially internet users. Although the data collected ended up numbering only 160 responses, this was sufficient to enable the author to proceed with the study. The questionnaire was handled face-to-face, this technique gave the researcher more control and strengthened open-ended questions by allowing longer answers and asking supplementary questions (Riley et al., 2004, p. 96). In the limitation section the methods used will be clarified by the author to overcome some of the difficulties in the survey process.

**Target Population**

In order to narrow down the research the survey was taken in South County Dublin, in the area of Dún Laoghaire-Rathdown (See figure 4). The area was chosen because it is a large suburb on the affluent south side of the city. In order to establish a parameter in this study, wealthier people are considered with an annual household income higher than €50,000. To select the right participants, the first question on the survey was if the participant was living in South Dublin.

Eg.

1. **Are you living in South Dublin?**
   *Mark only one option*

   ☐ Yes
   ☐ No
Figure 4: Census 2011

<table>
<thead>
<tr>
<th>Population in Dún Laoghaire-Rathdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office (2011)

3.2. Data Collection Instruments

In order to collect the amount of data that will answer the research question and achieve the dissertation goals, a face-to-face questionnaire was conducted where each person was asked to respond to the same set of questions in a predetermined order (deVaus 2002, cited in Saunders et al. 2012, p.416). However, the questionnaire presented some advantages and disadvantages but was ultimately the most widely used data collection within the survey strategy (Saunders et al., 2012, p.417).

The conduction of the questionnaire started at the end of June and finished on the first week of July. In the meantime, the author was working part-time and conducted the survey on Fridays and at weekends. The survey was distributed in Blackrock Market and in Dún Laoghaire at the Peoples’ Park weekend market. Those places were chosen because they are affluent areas with a large volume of consumers which would fit the profile selected to this study. The participants were chosen in different genders and age groups. When they were approached, a brief explanation of the study and about the survey was given and the participants were asked if they were willing to answer the questionnaire. Administering the questionnaire face-to-face was slightly time consuming, but it gave the author the advantage of administering it collectively.

The questionnaire (See appendix B) was structured with 28 close-ended questions. 9 questions had an open alternative where the participant had an option to provide examples or
give a different answer. The questionnaire was divided into 5 sections: Section A – Demographics, Section B – Information Sharing, Section C – Online activity, Section D – Data protection, and Section E - final questions. These sections were classified as demographics, facts, opinion, and key questions. The questionnaire design was simple, clear and the average time taken to answer it was 5 minutes.

3.3. Data Analysis Procedures

The raw form of quantitative data needed to be processed to turn it into information (Saunders et al., 2012, p.472). The data collected from the questionnaire was entered as variables into a statistical programme SPSS. To be acceptable for the software analysis, the data had to be entered in a table format, called a data matrix, separating each row and column into a variable for obtaining data results (Saunders et al., 2012, p.478).

Before the data was inserted into the SPSS variables codes were set up. For example age group: 18-24 code 0, 25-34 code 1, 35-44 code 2, 45-64 code 3, 65-74 code 4, 75 years or older code 5.

The variables were classified on the basis of their level of measurement into nominal and ordinal. According to Burns and Burns (2008, pp.97-98) nominal measurements are used to divide data into separate and distinct categories, for example, appropriate for age or household income categories, while ordinal measurements can rank observations into categories with a meaningful order, ex. satisfaction rate.

In the last stage, all the data entered into SPSS was analysed with output tables and graphics produced in order to draw conclusions and findings.

3.4. Time Horizon

Planning the research is another fundamental task required, in particular the timeline. Time horizons are part of the research design and according to Saunders et al. (2009, p.155) it is independent from the research strategy taken. Time horizons can be divided in cross-section
studies where the data is gathered just once or longitudinal studies which allows the data to be gathered several times (Burns and Burns, 2008, p. 84).

Therefore, cross-sectional studies were the method best suited for this dissertation based on the fact that the data collection methods was through surveys and over a short period of time.

<table>
<thead>
<tr>
<th>Data Collection timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>27/06/15 – Started handle face-to-face questionnaire</td>
</tr>
<tr>
<td>05/07/15 – Finished all the questionnaires</td>
</tr>
</tbody>
</table>

3.5. Research Ethics

The research ethics issues “refers to the appropriateness of your behaviour in relation to the rights of those who become the subject of your work, or are affected by it” (Saunders et al., 2003, p.129). Furthermore, research in the business area generally involves people, therefore, ethical issues and dilemmas are inevitable (Burns and Burns, 2008, p. 43).

Addressing the issue of people's privacy and their concerns can be a sensitive theme to discuss. Therefore, the author was careful when surveying the participants. As stated by Burns and Burns (2008, p. 35) the participants’ rights are: the right to voluntary participation, the right of safety and freedom from harm, the right to be informed, the right to privacy and confidentiality. Considering these rights the approach and presentation played a key part in collecting the data. It was essential and important to clarify to the participants what the research was about and how the information provided by them would be kept confidential and only used for research purposes, the practice applied by the author while conducting the survey is the concept of informed consent (Burns and Burns, 2008, p. 35). The first page of the questionnaire (See appendix A) contained information about the study, the author, and its supervisor, the participant had a line to sign their consent and they also had the freedom whether to proceed to answer the questionnaire or not.
Ethics issues also apply to the data analysis, as it is important that the results are valid and sound; have integrity and are stemming from the researchers own integrity (Farrimond, 2013, p.69). The data analysed was reported accurately. Every answer was transferred to the SPSS software the way it was answered on the questionnaire with no interference from the author. The 160 questionnaires answered will be retained for at least one year for transparency reasons and for future re-analysis if necessary.

3.6. Limitations of Methodology

Throughout the dissertation some limitations can occur, making the research a little bit harder or requiring some changes to be made.

Time was one of the limitations regarding the questionnaire distribution, it was done just at weekends. 300 answers were expected, an ambitious number, but because the author just had 2 months to complete the entire dissertation and was working at the same time it resulted in only 160 questionnaires being completed. Another limitation that was not expected by the author when collecting the 300 answers was the fact that in Ireland it is not permitted to conduct surveys in particular premises, such as shopping centres without permission or insurance. The original plan was to collect the data in Blackrock Frascati shopping centre; Dundrum Town Centre; and Dún Laoghaire shopping centre. These locales were chosen because of the large volume of consumers with expected high income. Although, when the author went for the first time to the Frascati Shopping Centre they were told the limitations of conducting a survey inside a particular premises. To continue carrying out the survey inside the deadline and with the same target population, the author realized that the survey had to be carried out on the streets and public markets, which was impossible when the weather was bad, as not many people were around to survey.

Another implication of the methodology was regarding the possible difficulty of bias in the survey, which could probably affect the conclusion of the study. Some participants refused to answer the questionnaire justifying that they never used the internet, although some people said that they cared about their privacy even though not using the internet. To avoid any bias it was explained to the participant that their opinion would count as valid information to the
study. It also explained that as the author wanted to know about consumer awareness and sentiment about their data being used for marketing purposes, they would include consumers that are not often active online.

3.7. Methodology Conclusion

The methodology chapter covered the methods through which the primary research was carried out. The research methods enabled the author to frame and narrow down the study in order to answer the research question “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?” Thus, the choice of positivism and pragmatism as research philosophies enabled the author to understand consumer feelings in a practical manner.

To test the hypotheses that arose during the study it was necessary to apply a deductive approach. In order to do so the deductive approach was combined with the survey research strategy. The survey was conducted by means of a face-to-face questionnaire, with quota sampling. The target population was in the south Dublin in Dún Laoghaire-Rathdown area, because it is an affluent area with a large volume of consumers who had an annual household income higher than €50,000 and held a postgraduate degree. The total answers gathered was 160, which is a good number of respondents, enough to achieve the study goals.

The quantitative method in the research evolves validity and reliability to test a theory comparing the predictions with measurements of the data collected. Validity accurately measures the concept and reliability, in the sense that they are consistent from one measurement to the next (Riley et al., 2004, p. 17). This comparison between the predictions and the theory was undertaken using statistical analysis such as correlation (Saunders et al., 2009, p.459).

The questionnaire was designed in a simple fashion and made stress-free for the participant. It contained 28 questions divided in 5 sections. Before the actual survey started, a pilot of questionnaires was handed out. From the answers gathered from the pilot, the author and the supervisor reorganized the questions in order to avoid bias. This was necessary because some questions might influence people’s answers in other questions. This process took the author and the supervisor about an hour to discuss, reorganize, and analyse the relevance of the questions in order to avoid errors in the final result.
To respect participants’ rights, an informed consent was requested and an explanation about the study was also given. Indeed some of the participants work in sensitive jobs and they were concerned if their names or the information they gave would be made public. The author explained that all personal data would remain strictly confidential.

Nevertheless, some limiting factors such as time and permission required to undertake the survey in private places, resulted with less numbers of participants than expected being obtained, which was disappointing. However it was still possible to get a good analysis. In the next chapters, data analysis results and findings will be shown.
4. Data Analysis/ Findings

This chapter will present and illustrate the findings from the 160 collected questionnaires. The information collected from the questionnaires is called raw data or simply data (Kumar, 2005, p.220). In order to draw final conclusions and achieve the dissertation aims the raw data has to go through an editing process (See figure 5).

![Figure 5: Steps in data processing](source: Adapted from Kumar (2005, p.221)]

The objective of the survey taken was to answer the research question, sub-questions and to test hypotheses arose in this study.

Research question:

- To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?

Sub-questions:

- Are consumers aware of the extent of the information collected from them in their day-to-day activities?
• Are consumers aware of their statutory rights when it comes to data protection and privacy?
• Are consumers aware of how this data is processed and shared by advertising companies for marketing purposes?

Hypotheses:

• Highly educated people are more selective about the amount of information they are sharing online.
• Younger people are more aware of their information being used for marketing purposes.
• Wealthier people are more aware of their data protection rights.

In order to achieve the survey objectives a questionnaire was administered face-to-face, where a sample of 160 respondents aged 18+ responded. This survey was designed to be representative of Irish consumers living in South County Dublin. An overview of each question asked in the questionnaire will be given with quantitative results. Further on in the next chapter, a discussion of the findings will be presented and the hypotheses will be tested.

4.1. Participants demographic characteristics

By collecting the demographic information from respondents, the author may test the study's hypotheses. In order to select the target population, before answering the survey, participants were asked if they were living in South Dublin. 100% of respondents are currently living in the South Dublin area.

<table>
<thead>
<tr>
<th>Q1. Are you living in South Dublin?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Valid Yes</td>
</tr>
<tr>
<td>Q2. Gender</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q3. Household Income</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; €24,999</td>
<td>35</td>
<td>22.2%</td>
</tr>
<tr>
<td>€25,000 - €49,999</td>
<td>52</td>
<td>32.9%</td>
</tr>
<tr>
<td>€50,000 - €99,999</td>
<td>49</td>
<td>31.0%</td>
</tr>
<tr>
<td>&gt; €100,000</td>
<td>22</td>
<td>13.9%</td>
</tr>
<tr>
<td>Total</td>
<td>158</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q4. Education Level</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaving Cert</td>
<td>39</td>
<td>25.2%</td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>53</td>
<td>34.2%</td>
</tr>
<tr>
<td>Postgraduate Degree</td>
<td>63</td>
<td>40.6%</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q5. Age group</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>14</td>
<td>8.8%</td>
</tr>
<tr>
<td>25-34</td>
<td>48</td>
<td>30.2%</td>
</tr>
<tr>
<td>35-44</td>
<td>44</td>
<td>27.7%</td>
</tr>
<tr>
<td>45-64</td>
<td>45</td>
<td>28.3%</td>
</tr>
<tr>
<td>65-74</td>
<td>5</td>
<td>3.1%</td>
</tr>
<tr>
<td>&gt; 75</td>
<td>3</td>
<td>1.9%</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>100.0%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The results show that 58.1% of participants were female and the other 41.9% were male, the majority responding were in the age group of between 25 to 65 years old. The Dún Laoghaire-Rathdown region was chosen as a research target because it is a reasonably affluent area. The fact that the area has some poorer parts with unemployment and also a working class component, was to be seen in the outcome which had a mix of participants,
with annual household incomes ranging from < €24,999 to over > €100,000. The results showed that 22.2% of participants had a household income less than €24,999 per year; 32% more than €25,000 per year; 31% among €50,000 to €99,999; and 13.9% more than €100,000. The results also showed a high level of education in the area with 40.6% participants having a postgraduate degree; 34.2% with an undergraduate degree; and 25.2% with Leaving Certificate. Only 5 people did not answer the education level question.

### 4.2. Information sharing

The information sharing is a factual category which aimed to find out the amount and kind of data shared online by the participants. The participant could choose more than one alternative. The questions were close-ended but the respondent also had an open alternative at the end of each question where it was possible to give examples or different alternatives.

<table>
<thead>
<tr>
<th>Table 2. Information Sharing</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6. What do you mostly use internet for?</td>
<td>Search Engine</td>
<td>116</td>
</tr>
<tr>
<td>Online Shopping</td>
<td>60</td>
<td>37.5%</td>
</tr>
<tr>
<td>Social Networking</td>
<td>76</td>
<td>47.5%</td>
</tr>
<tr>
<td>Online News</td>
<td>69</td>
<td>43.1%</td>
</tr>
<tr>
<td>Email</td>
<td>113</td>
<td>70.6%</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q7. What kind of personal information do you share on social media?</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full name</td>
<td>97</td>
<td>60.6%</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>60</td>
<td>37.5%</td>
</tr>
<tr>
<td>Location History</td>
<td>40</td>
<td>25%</td>
</tr>
<tr>
<td>Photos</td>
<td>77</td>
<td>48.1%</td>
</tr>
<tr>
<td>Credits card number</td>
<td>9</td>
<td>5.6%</td>
</tr>
<tr>
<td>Address</td>
<td>13</td>
<td>8.1%</td>
</tr>
<tr>
<td>Telephone number</td>
<td>13</td>
<td>8.1%</td>
</tr>
<tr>
<td>I don’t use social Media</td>
<td>38</td>
<td>23.8%</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q8. What kind of personal information do you share with the websites you use?</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full name</td>
<td>120</td>
<td>75%</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>86</td>
<td>53.8%</td>
</tr>
<tr>
<td>Location History</td>
<td>38</td>
<td>23.8%</td>
</tr>
<tr>
<td>Photos</td>
<td>34</td>
<td>21.3%</td>
</tr>
<tr>
<td>Credits card number</td>
<td>67</td>
<td>41.9%</td>
</tr>
</tbody>
</table>
In relation to internet use, 72.5% of participants make use of search engines such as Google and Yahoo!. This is the most common behaviour seen in respondents. The next most common behaviour is sending and receiving email, which is undertaken by 70.6% of respondents. 9 participants stated that they also use the internet for online banking, online games, Spotify and YouTube. Moreover, 47.5% of participants used social networking regularly. With 60.6% of answers the full name was the personal information mostly shared in social media, followed by photos with 48.1%. 5 participants also suggested that they share their personal email and used social media only for professional profiles. 23.8% of respondents do not use social media. Credit card number is the personal information less shared on social media with only 5.6%, in contrast, 41.9% participants shared credit card numbers with websites they use, exampled by them, airlines webpages, PayPal or if shopping online. Along with credit cards, they are sharing their full name (75%), date of birth (53.8%), address (36.9%) and telephone number (35.6%).

4.3. Online Activity

The online activity section aimed to find out how many consumers were agreeable to share their personal information with brands and marketing companies in exchange for rewards or personalised services. The questions about their willingness to share information were designed before the questions about awareness in order to avoid influences on their answers in the following section of the questionnaire.

<table>
<thead>
<tr>
<th>Table 3. Online activity - sharing</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9. Do you share your private information online with brands that have a good reputation?</td>
<td>Yes</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Not Sure</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Depends of the Brand</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Brand examples</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>2</td>
</tr>
<tr>
<td>Q10. Are you satisfied to share your sensitive data in order to</td>
<td>Yes</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>91</td>
</tr>
<tr>
<td>Q11. Would you consent to share your personal information with marketing companies in exchange for rewards?</td>
<td>Yes</td>
<td>27</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Not sure</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Depends of the reward</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Depends of the company</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Examples</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q12. From question 11 would you change your mind if you knew that the company could be sharing your personal information with third parties?</th>
<th>Yes</th>
<th>69</th>
<th>44.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>75</td>
<td>48.1%</td>
</tr>
<tr>
<td></td>
<td>Not sure</td>
<td>9</td>
<td>5.8%</td>
</tr>
<tr>
<td></td>
<td>Depends of the reward</td>
<td>3</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

From the sample, 73 (46.2%) of respondents stated that they do not share their private information with Brands even with a good reputation. 24 (15.2%) people out of 158 answered that they would share depending on the Brand, and 17 people gave few examples of Brands they trust with their data (See Figure 6). 2 people did not answer the question. In the next question sharing sensitive data, 58% of respondents would not share sensitive data in order to receive personalised services or advertisements. Similarly, 54% of respondents would not consent to share their private information with marketing companies in exchange for rewards, and 19.6% would share their data depending on the reward offered. Interesting enough, when asked if they would change their mind on sharing their personal information if they knew that the company share their data with third parties, 44.2% said yes and 48.1% said no, a really close result.
Participants in the sample had shown high awareness about their information being processed and shared by data brokers, 59.1% said they were aware; 32.1% are not aware; and 8.8% not sure. In the next question, 70% said they were also aware that their data could be used for marketing purposes. The only aspect that respondents did not show higher awareness of was related to the extent of personal information being collected from their day-to-day online activities. 41.3% respondents said they were not aware, against 33.8% said they were aware, and 25% are not sure.
Still related to the online activity section, 62.5% do not know what big data is, and 55.3% do not know what the Cookie law is. In this case the terms could just be new to them, although, 28.8% of respondents know what big data is, likewise 32.1% know about the “Cookie Law”. However, only 28.0% stopped using a website that requested permission to allow Cookies in the browser; 15.9% said sometimes they stopped and 56.1% said that Cookies did not stop them using a website. Hence, the table below demonstrates how much consumers are interested in their rights. The results showed that only 22% read terms and conditions before signing online for anything; 39% said they never read the terms and conditions; and another 39% said they read them sometimes.

<table>
<thead>
<tr>
<th>Table 5. Online activity – Big data and Cookies</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q16. Do you know what Big data is?</td>
<td>Yes</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Not Sure</td>
<td>14</td>
</tr>
</tbody>
</table>

| Q17. Do you know about the “Cookie Law”?      | Yes       | 51            | 32.1%        |
|                                               | No        | 88            | 55.3%        |
|                                               | Not sure  | 20            | 12.6%        |
|                                               | Missing   | 1             |              |

| Q18. Have you stopped using a website that requested your permission to allow Cookies in your Browser? | Yes | 44 | 28.0% |
|                                                                 | No  | 88 | 56.1% |
|                                                                 | Sometimes | 25 | 15.9% |

<table>
<thead>
<tr>
<th>Table 6. Online activity – Terms and Conditions</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q19. Do you read terms and conditions before signing online for anything?</td>
<td>Yes</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>1</td>
</tr>
</tbody>
</table>

The graph below (See figure 7) shows that 72% internet users that read terms and conditions want to understand what they are agreeing with, and 22% care about their rights.
On the other hand, 48% of internet users do not read terms and conditions because they find the detail too long, and another 15% think they are too boring to read (See figure 8).
4.4. Data Protection

The data protection section wanted to determine if consumers were aware about their online data protection rights, also if they knew where to claim against infringements of their rights.

<table>
<thead>
<tr>
<th>Table 7. Data Protection</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q22. Are you aware of your right to privacy and your data protection online?</td>
<td>Yes</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Not Sure</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>1</td>
</tr>
</tbody>
</table>

| Q23. Do you know about the Data Protection Commission? | Yes | 77 | 48.1% |
| | No | 62 | 38.8% |
| | Not sure | 21 | 13.1% |

| Q24. Do you think the EU protection law helps control your personal data? | Yes | 29 | 18.2% |
| | No | 36 | 22.6% |
| | Not sure | 94 | 59.1% |
| | Missing | 1 | |

| Q25. Are you aware of the new Electronic Privacy Regulations? | Yes | 19 | 8.1% |
| | No | 128 | 80.0% |
| | Not sure | 19 | 11.9% |

| Q26. Do you feel confident that the new Electronic Privacy Regulation will help protect your private information? | Confident | 10 | 6.3% |
| | Very Confident | 2 | 1.3% |
| | Not Confident | 32 | 20.0% |
| | Not sure | 116 | 72.5% |

The results demonstrated that 44.7% of internet users were aware of their right to privacy and data protection online, whilst 30.2% said they are not aware. When they were asked if they knew about the Data Protection Commission, the results were not much different from the previous question, 48.1% said yes and 38.8% said no. Interestingly, 59.1% of participants were not sure if the EU Protection Law helps control their personal data. Moreover, with the fact that 80.0% did not know what the Electronic Privacy regulations are, 72.5% answered that they were not sure if the Electronic Privacy regulations can help protect their private information online.
4.5. Consumer sentiment about personal data

The last two questions on the questionnaires aimed to determine consumer feelings about the control they have on the amount and type of personal data being shared online. The results of these questions will allow the researcher to answer the research question.

The outcomes presented similar results as represented in the graphs below. Only 12.5% of consumers feel confident that they can control the amount of their personal data being shared; 63.8% feel not confident (See Figure 9). Regarding the type of data being shared, 13.1% consumers feel confident and 65% are not confident (See Figure 10).

Figure 9. Confidence about the amount of personal data being shared - Q27.
4.6. Hypothesis

In theory “the hypothesis is any statement about the qualities or behaviour of a phenomenon that is advanced for testing” (Riley et al. 2004, p.11). Therefore, the demographic aspects collected from the sample represented by age, income and education level was correlated with the amount of information they are sharing online and awareness. Saunders et al. (2009) states that the statistical significance of the relationship indicated is determined by the sample size, where it is very difficult to obtain a significant test statistic with a small sample, whilst with large samples any difference or relationship will be significant. In this study the sample size of 160 respondents is satisfactory and it will be enough to disprove the null hypothesis.
4.6.1. Hypothesis I

Highly educated people are more selective in the amount of information they are sharing online.

This hypothesis arose due to the assumption that people with a postgraduate degree would be more careful with what they are sharing online. This presumes that they have more knowledge about how having too much information about them available online could affect their lives. For example, as Blackmon (2015) pointed out that a simple personal e-mail address shared with any website could reveal a lot about the person, a goldmine for online criminals, as today so many people run their lives through their e-mail account.

<table>
<thead>
<tr>
<th>Table 8. Education Level vs. Information sharing on social media (N=160)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Leaving Cert (N=39)</td>
</tr>
<tr>
<td>Undergraduate Degree (N=53)</td>
</tr>
<tr>
<td>Postgraduate degree (N=63)</td>
</tr>
</tbody>
</table>

Therefore, crossing the information sharing on social media with education level showed that the respondents with a postgraduate degree are sharing more personal information than people with Leaving Certificate only and undergraduate degrees. Although as exceptions, more users with undergraduate degree are sharing credit card numbers on social media. On the other hand, the number of postgraduates’ degree holders not using social media is higher.

However, when asked what kind of personal information the participants are sharing with websites they are using, the outcome showed a higher rate of responses in credit card number, address and telephone number in comparison with social media sharing.

<table>
<thead>
<tr>
<th>Table 9. Education Level vs. Information sharing with websites (N=160)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Leaving Cert (N=39)</td>
</tr>
</tbody>
</table>
Hence, crossing the information sharing on websites with education level showed that users with postgraduate degree are also sharing more personal information, especially full name, date of birth and credit card number.

In conclusion, the findings do not support the hypothesis that highly educated people, with postgraduate degrees are more careful in the amount of information they are sharing online. On the other hand, the number of respondents with postgraduate degrees (63) are higher than undergraduates (53), and Leaving Certificate (39).

4.6.2. Hypothesis II

Younger people are more aware of their information being used for marketing purposes.

This prediction was made based on the fact that younger people under 35 years old are sharing more information online and despite the privacy issue, being targeted by marketing companies or brands is a factor that does not inconvenience them.

<table>
<thead>
<tr>
<th>Undergraduate Degree (N=53)</th>
<th>37</th>
<th>28</th>
<th>10</th>
<th>11</th>
<th>20</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate degree (N=63)</td>
<td>52</td>
<td>41</td>
<td>21</td>
<td>16</td>
<td>31</td>
<td>28</td>
<td>24</td>
</tr>
</tbody>
</table>

![Figure 11. Age vs data collection for marketing purposes](chart)
The graph above (See Figure 11) showed that awareness of private data being collected for marketing purposes is high in all age groups, which does not support the hypothesis which arose. This result could be led by the influence of the previous question asked to the participants, if they were aware of data brokers collecting, processing and selling their information for third parties. The graph below (See figure 12) demonstrated that people in all age groups are also highly aware of data brokers’ activities.

4.6.3. Hypothesis III

Wealthier people are more aware of their data protection rights.

This hypothesis is based on the assumption that people with higher incomes, above €50,000, have more chance to have a postgraduate degree which gives them developed critical skills. The graphic below (See figure 13) demonstrated that the number of people with postgraduate degree is higher on the income group of €50,000 to > €100,000.
In result, when the participants were asked about their awareness of their right to privacy, the majority of yes answers came from people with an annual household income above €50,000 (See figure 14).

Figure 13. Income vs Education level.

Figure 14. Income vs. awareness of data protection rights.
The findings supported the hypothesis that wealthier people with a higher degree level, are more aware of their privacy rights and their data protection online.
5. Discussion

This chapter will assess the findings from the data collected through the questionnaires distributed in South County Dublin, with a sample size of 160 respondents. Through research, literature review and critical assessment, the content validity of the questions in the survey were evaluated. The selection of a broad range of relevant questions allowed a list of essential questions to be presented which would ensure that the required information was provided by respondents to test the hypotheses. For a questionnaire to be valid it must be reliable in order to empower the researcher to answer the research questions (Saunders et al. 2009, p.373). Hence, following the interpretation of the results and the answers gathered in the study, an analysis of the limitations also will be given along with future recommendations.

5.1 Main Findings

With regards to the kind and amount of personal information that is shared online by the participants, the results from the whole sample showed that 60.6% share full name on social media; date of birth (37.5%); location history (25%); photos; (48.1%); credit card number (5.6%); address (8.1%); telephone number (8.1%). 23.8% of the participants do not use social media. Within the above results it is possible to assume that the majority of social media users care about their privacy online, sharing just names and photos. This information could also be used for professional profiles such as in LinkedIn. In contradiction with the results presented, in Diorio (2015) article 'Data Protection Laws: Quilts Versus Blankets' he cited a statement made by Facebook’s founder Mark Zuckerberg “people have really gotten comfortable not only sharing more information and different kinds, but more openly and with more people. That social norm is just something that has evolved over time.”

Furthermore, the fact that some users stated that they are sharing credit card numbers on social media could indicate two assumptions: the participants did not understand the question asked or they did not care about their security. Nevertheless, in the question asked about personal information sharing with different websites some participants who were surveyed did not understand what type of website was meant in the survey.
However, few respondents stated that they share with websites that they trusted; websites that they are shopping with; and also if they think that it is a secure one. Some examples given were: PayPal; Amazon; Marks & Spencer; Nike; and airline websites. The total results are: Full name (75%); date of birth (53.8%); location history (23.8%); photos (21.3%); credit card number (41.9%); address (36.9%); and telephone number (35.6%). In line with these results, the European Commission (2015) conducted a survey in Europe about data protection. The survey was presented in June 2015, with some similarities to this particular study. However, this research is focused just on Ireland - to be more specific South County Dublin only, whilst the Eurobarometer report was demographically represented by the 28 EU member states with 27,980 respondents. The EU survey demonstrates that the majority of Irish consumers share their information online in order to have a product they have purchased delivered; to make a payment online; to have access to a service; and to save time on the next visit to the website.

As mentioned before, in Gilbert’s (2015) article ‘The right of erasure or right to be forgotten’ he states that companies that benefit from advertising revenues say that most people will give away personal details in exchange for anything. However, in the survey findings the outcome contradicted Gilbert’s idea. The results showed that 54.4% of participants do not share private data online with marketing companies in exchange for rewards, 17.1% said they share information in exchange for rewards, and 19.6% said they would exchange private information depending on the reward offered, although no example of a reward was given. Moreover, Richards and King (2014) argued that everyone wants to share information with companies to provide better services to them. In a global survey conducted by Microsoft (2015b) it showed that 39% of consumers are happy to share their private information as long they benefit from it in terms of optimum services. Then again, the Irish participants showed a different opinion, 58% are not satisfied with sharing their sensitive information in exchange for personalised services or advertisements, but 25.5% are satisfied to share information.

Another study also provided by Microsoft (2015a) ‘The Consumer Data Value Exchange’ showed that 49% of consumers interviewed were aware that their data was being collected for marketing purposes. In the Irish scenario the results also pointed to a high level of awareness in relation to a participant’s data being collected, processed and shared by advertising companies. 70% of them said they are aware, and 23.8% of them said they are not aware of these practices. However, when asked if participants were aware of the extent of information
collected from their day-to-day online activities, the results are contradictory to the previous question; 41.3% said they are not aware, and 33.8% said they are aware. The contrary results are interesting, and might have presented a different outcome had the questions been positioned in a different order - thus reversing the percentage values to the responses. On the other hand, in agreement with awareness on the amount of information collected from day-to-day activities, Booch (2014) stated that personal information is being collected innocuously from individuals’ online activity without their knowledge and consent.

In the findings regarding public awareness of their right to privacy and data protection online, the results were balanced, 44.7% of participants said they are aware and 30.2% said they are not aware. The consumers’ awareness can also be connected with their concern about their rights. In order to find this out, the participants were asked if they read the terms and conditions before signing online for anything. As expected, the majority of answers were no (39%) because they think the terms and conditions are too long to read; too difficult; and too boring. 22% respondents said that they read the terms and conditions because they care about their rights and want to understand what they are agreeing with. This outcome shows that so few people are interested in how their private information will be utilised by websites that they are using. However, the Data Protection Commissioner (2013) demonstrated in a survey conducted by them in Ireland in 2013, that the awareness of their office by the public continues to increase, as also the number of complaints received by them. The findings confirmed that a majority of people know about the Data Protection Commissioner, 48.1% of participants said that they know, and 38.8% said they do not know. Although, when asked if they are aware of the new Electronic Privacy Regulations which relates to the processing of personal data and protection of privacy for phone, e-mail, SMS and Internet use (Data Protection Commissioner, no date2), the negative answers were incredibly high. 80% of the responses received are not aware; only 8.1% are aware; and 11.9% are not sure if they know about the Electronic Privacy Regulations. But in comparison when they were asked if they feel confident that the new Electronic Privacy Regulation will help protect their private information, only 10 (6.3%) participants said that they are confident; 2 (1.3%) said they are very confident; 32 (20%) are not confident; and 116 (72.5%) out of 160 participants said they are not sure. The “not sure” alternative on the questionnaire left a vague answer, perhaps for future research “I don’t know” would be a better alternative to provide.
The findings also made it possible to test the hypotheses in the study between socio-demographic characteristics of the respondents with their willingness for information sharing and privacy awareness. In relation to education levels and the amount of information sharing online, the findings did not support the hypothesis that people with a postgraduate degree share less information online. Perhaps this could be due to the amount of respondents with a postgraduate degree which was higher than undergraduates and Leaving Certificate levels. Also, the findings did not support the hypothesis of a relationship between age group and awareness of private data being collected for marketing purposes. The results showed high awareness in all age groups specially people above 45 years, while the outcome expected was that high awareness was in the group with an age below 35 years. In both situations perhaps a bigger sample size might have offered different results. On the other hand, the findings confirmed the hypothesis that people with an income higher than €50,000 annually are more aware of their right to privacy and their data protection online.

5.2. Research Questions

This study is focused on measuring Irish consumer’s sentiment about their control of their personal information that is being shared online, and possibly used for marketing purposes. To achieve this, the study aimed to answer the following research question and also the sub-questions: “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?”.

Before the participants were asked about their sentiment towards the control they have on the type and amount of personal data that is used for marketing purposes, the survey questioned the kind of information they are sharing online, and with what kind of company they are willing to share their information. These questions could measure the amount and type of information shared by the participants and if the more they share the less control on it they could have. The results showed that the majority of people share basic information on social media, such as full name and photos. At the same time, further personal information is being shared with websites they are browsing, such as date of birth, credit card number and address, in order to shop online or use online services. The majority of participants are not willing to share their private information with any brand that does not have a good reputation, or in exchange for rewards, or personalised services and advertisements. Even so the participants
stated that they are sharing just the necessary information in order to utilise websites and social media pages, when asked if they feel confident that they can control the type of their personal data that is being shared. The results demonstrated that 104 (65%) of participants do not feel confident that they can control the type of data being shared by them; 21 (13.1%) feel confident; 5 (3.1%) feel very confident; 30 (18.8%) are not sure.

Moreover, the respondents from the sample surveyed showed high awareness about data brokers’ practices in collecting, processing and selling data. They are also aware that their personal data is being collected, processed and shared by advertising companies for marketing purposes. On the other hand, the majority of participants are not aware of their information being collected from their day-to-day online activities. Therefore, in the survey the participants were asked if they feel confident that they can control the type of data being shared. The results showed that the majority of respondents do not feel confident, represented by 102 answers (63.8%); Only 20 (12.5%) feel confident; 4 (2.5%) very confident; 34 (21.3%) are not sure. The question was answered by all the participants surveyed.

Despite the fact that consumers are not confident about their level of control over their personal data, the majority of responses showed awareness of right of privacy and data protection. However, the majority of respondents also stated that they do not think that the EU protection law can help control their personal data. The participants indicated that they know about the Data Protection Commissioner. However, 128 (80%) of respondents do not know about the Electronic Privacy Regulations, thus, the majority 116 (72.5%) are not sure if the regulation can help protect their private information.

Sub questions:

- Are consumers aware of the extent of the information collected from them in their day-to-day activities?

  No, the findings demonstrated in chapter 4 indicate that the majority of consumers are not aware of their personal data being collected from their day-to-day activities, for example, from their smartphone’s movements and websites they use.
• Are consumers aware of their statutory rights when it comes to data protection and privacy?
Yes, in order to answer this question the surveyed participants were asked about their awareness of their online data protection rights. The results presented that the number of consumers aware of their right to privacy is higher than those that are not aware.

• Are consumers aware of how this data is processed and shared by advertising companies for the marketing purposes?
Yes, interestingly enough 70% of the participants showed awareness that their data is being collected, processed and shared for marketing purposes.

For this paper, through the sample collected, the study was satisfactory and achieved its objectives by answering the research question and the sub-questions. To this end the awareness of consumers about their privacy rights, their private information being used for third parties and the control they have on their data was measured. In conclusion, the analysis showed that consumers do not feel they can control the amount and type of their personal data that is used in marketing campaigns. However, technology is making our lives easier in many ways, but concerns regarding our privacy and rights should never stop. Studies about consumer awareness should continue, and the next chapter will reveal some recommendations for future research in this area.

5.3. Limitations
The limitations which occurred during the data collection process restricted the findings to some extent. However, it was still possible to achieve the research objectives, and these limitations can be overcome in the future.

Non-probability sampling was the methodology chosen in this study. This was due to the fact that would not be possible to know the exact characteristics of every single person living in the target area, South County Dublin. Through quota sampling the author could have a balance in in the strata group, for example, with an income < €25,000 and > €50,000. The
socio-demographic characteristics balance was necessary to test the hypothesis. However, the income aspect had a good balance of respondents. Although the education level and age group did not support the two hypotheses related to them due to the unequal number of respondents. In order to avoid this limitation, the author should in the future continue the data collection until each of the desired quotas are filled.

Another limitation found was in relation to the open options the participants had in some questions of the questionnaire. The participants had an option of “others” in the question on information sharing, where they could give more examples of what they mostly use the internet for; what kind of personal information they share on social media and what kind of personal information they share with websites they use. In the online activity section the respondents had the option to give brand examples they trust, and reward examples for which they would be happy to give their personal information. In both cases the number of answers were very low. For future research, in order to get a higher rate of responses, the author should ask the open questions instead of leaving the option free to the participant to answer.
6. Conclusions/Recommendations

The purpose of this study was to measure consumer sentiment about the extent of personal information shared online and how it is used for marketing purposes. Through an in-person survey, 28 questions were put to 160 respondents. The survey made it possible to observe that so many people did not realize how their personal information had been collected, processed, and shared with third parties. It was pleasant to hand the questionnaire to groups of people and see them discussing their privacy rights or elements of personal data that they did not think about until they saw the questions.

The main objective of the paper was achieved and the research question “To what extent do consumers feel that they can control the amount and type of their personal data that is used in marketing campaigns?” was answered through the findings that the sample provided. It demonstrated that consumers do not feel confident that they can control the amount and type of their personal data that is used in marketing campaigns. It also made it possible to answer the sub-questions that helped focus the research. The results clearly demonstrated that the majority of participants were not aware of their personal data being collected from their day-to-day online activities. On the other hand, participants showed awareness of their right to privacy, and awareness of marketing companies’ practice of collecting and processing their personal information for marketing purposes. The findings also revealed that Irish consumers are not willing to share their sensitive personal information with brands in exchange for rewards or with marketing companies in exchange for personalised service and advertisement. The majority of participants do not read terms and conditions before signing up for anything online, because they think they are too long to read, too difficult to understand and too boring.

Thus, the data collected from Irish participants in South County Dublin made it possible to test the hypotheses that arose in the study. The target area was chosen because it is an affluent area, and it was expected to get a high number of respondents with an income higher than €50,000 annually and with postgraduate degrees. As expected the strata group targeted was achieved. However, it did not prove the examined hypotheses, firstly that participants with postgraduate degree share less information online, and secondly that people less than 35 years old are more aware of their data being collected for marketing purposes than people older than 35 years old. In addition, the results confirmed that people with an income higher than
€50,000 are more aware of their right to privacy.

In general, the outcome of the study is encouraging, even though some limitations transpired during the research. The limitations that arose are possible to overcome if the study is continued in the future. Some limitations were related to the structure of the questionnaire, where some questions might have had influence on the following responses, although the questions were carefully tailored to avoid bias. Another limitation regarding the survey was related to the open-ended questions requesting some examples of items being discussed, unfortunately the response rate for this was very low. Moreover, the fact that the findings did not support the hypotheses could suggest that the sample needed to have more balance in the socio-demographic characteristics for each quota.

As a side effect, this thesis may have contributed to create awareness in the people surveyed about the importance of being concerned about their online rights. Also, it might have been informative for those that did not know about the fact that their data was being collected, processed and used for marketing purposes. The paper also informed them that they have a right to privacy and where to complain for violation of their data privacy i.e. the Data Protection Commissioner. In addition, the thesis can create awareness in those surveyed that they are generating an enormous amount of data in their day-to-day activities and of the possibility that data is being collected from them. From the study it was evident that people were willing to share some data in order to receive benefits, although, this work may demonstrate to some marketing companies that they can utilise people’s private information without being unethical, by simply always keeping the consumer informed of how their data is being used.
6.1. Recommendations

The author has some recommendations for future research based on this study. There are many questions raised in the course of the study which permit further investigation.

Although the answers given by respondents to the survey provided insight, the limited geographic catchment area meant that the sample was biased towards certain demographics. The respondents were on average from higher income households and more likely to be highly educated than the general population. A more geographically diverse sample may be more representative of the population as a whole. One possibility would be a comparison between the Northside and Southside of Dublin.

The survey also focused on general concepts such as whether the respondent had confidence that they could control the amount and type of personal data that is used for marketing campaigns and as a result there is scope for an expanded exploration of the awareness and ability of the public of how they could discover how their data is used. For example, an experiment could be run to determine whether the confidence level reported by respondents correlates with their observed abilities. The practical implementation of this experiment could be to first ask each respondent to self-assess their own ability to determine how their data collected online will be used for marketing purposes. They could then be presented with a test web site built to the current best practices, including an EU Cookie Law warning, cookie policy, privacy statement, and form asking for certain pieces of personal information. While browsing the example site, the respondent could be presented with multiple choice questions about the declared collection, processing, sharing, and retention of their data. The correctness of their responses would provide insight into their ability to find information about how their data will be used from the current required declarations made by data collectors. The results of this hypothetical experiment could also be used to determine the awareness of respondents to those statutory declarations, particularly the privacy statement.

Based on the fact that 63.8% of respondents did not feel confident that they could control the amount and type of personal data that is used in marketing campaigns, the author has the following recommendations to make to web service providers and marketers who collect
personal information online. Where information collected is essential to the provision of a product or service, it should be made primarily clear the reason for and extent of the data collection. It is also important to make clear to the end-user for how long their data will be kept, and to whom it will be shared. Although this information must be available in an organisation’s privacy statement, the findings of this survey show that while privacy statements are ubiquitous, there is likely little awareness of their utility. The author recommends that a clear, non-technical statement of the reason for data collection, including the above considerations, is presented to the user before consent is requested.
7. Reflections

“All good things come to those who wait...but only what's left behind by those who seize their opportunities.”

Abraham Lincoln (1809-65)

Opportunity and learning are two of the words most present in my life in these last 10 months. When I decided to undertake an MBA course, I could not have imagined the extent of the opportunities and learning that would come with it. The MBA gave me the chance not only to learn beyond the lectures, but also to acquire research skills and the ability to become more knowledgeable through my own efforts. I developed new skills, expanded my network, learned how to better understand other cultures through studying in an international school, and I had the opportunity to do undertake two internships, as a Business Development with a rental accommodation company and as Marketing Executive with a mobile marketing company. Most of all, I learned that I could overcome my own limitations through perseverance and hard work.

7.1. The MBA

As a result of my desire to improve my life and career, I chose to undertake a Master’s in Business Administration, which I believe will improve my personal and professional prospects. I would like to get a good job in the marketing industry, and develop a successful career. I hope that the skills and abilities that I learned in the Dublin Business School will help me achieve this goal.

7.2. The Dissertation

Since the beginning of the Master's course we were told to start thinking about our dissertation. The Research Methodology class clarified for us the process that we would need to follow to complete the dissertation. For the first semester it required a research proposal of the dissertation topic. I started to think what I would be most interested in studying, in researching, and how I also would contribute to society. I began to pay more attention at every lecture to try gather anything that could become a dissertation topic.
One day in a Personal and Professional Development class, we were talking about ethics. It caused a great discussion involving the whole class. From the enthusiasm in the class, I decided that I would like to do something related to ethics. As my MBA stream is in the Marketing area, I wanted to do a topic related to ethics in marketing.

The use of social media and online services is increasing every day, and it is becoming a necessity in our lives. However, in the use of these services, we also have to provide some amount of personal data. Thus, the amount of data that we are sharing can bring benefits and consequences. I wondered how marketing companies knew so much about consumers, how they could target us directly with products that we had shown interest in before. I had also read every day in newspapers about Big Data, data collection practices, and data protection issues. Thus I thought this was a good topic for me. I wanted to discover people’s opinions and their sentiment about the use of their data. I was curious to see how aware people were that their personal data was being used by marketing companies and perhaps shared with third parties. It took me a while to narrow down the topic as it is a huge area. I finally decided to focus on Irish consumer sentiment towards data privacy and, from their point of view, evaluate how marketers could collect personal information in a more ethical manner.

Furthermore, to complete my dissertation, I had to learn many new skills and learning processes, which I will talk about in the following sections.

7.3. Learning Process

According to Cottrell (2013, p.67), learning is more than intelligence or study skills. It is a multi-faceted process involving lots of factors. Devine (1987, cited in Burns and Sinfield, 2009, p.50) listed the process of learning as:

- Gathering new ideas and information
- Recording them
- Organising them
- Making sense of them
- Remembering them
- Using them.
During the MBA course, we had lectures on Personal and Professional Development, and as part of the course core, we had to develop an E-Portfolio. It consisted of a study log, updated personal development, and self-assessment. Through the records of what I was learning in class and my personal development, I could follow situations that had changed as result of my study. Mainly I learned to pay more attention to detail, be firm with others when necessary, and be more organized in my tasks and assignments by keeping a diary. I also became more interested in reading about business and keeping myself informed of current events.

The learning process was fundamental to achieving my objectives in the MBA. However, it also allowed me to develop skills that were necessary to progress in my dissertation, and in my professional and personal life.

### 7.4. Skills Development

During the MBA, many skills were required to complete the assignments requested. These skills were: research; reading; writing; time-management; critical analysis; leadership; and so on. These skills were developed and improved during the course and played a key role in this producing this dissertation.

For this dissertation, much secondary research was required to represent the current literature on the matter. Apart from the research skills, it was also necessary to critically analyse and evaluate secondary work and compare it to my own work. With the large amount of data available it was extremely important to analyse and prioritise what was relevant to my study.

To achieve the dissertation aims, it required quantitative primary data collection. The survey conducted through an in-person questionnaire required an in-depth knowledge of sampling and survey research methods. This task developed my critical thinking skills, as I had to analyse the data collected to draw conclusions. To approach the participants it was necessary to utilise my interpersonal skills. I had to be cheerful, clear on what I was asking for, and acquire their consent.
Communication and language skills

Language was one of my main concerns when I began the MBA, as English is not my first language. Once the course started and I found that most of my classmates were also not native English speakers, I felt more comfortable speaking in front of the class and asking questions in lectures. The written part was a small issue for me in the early assignments, as at that time, I had a poorer vocabulary. However, since then, my English has improved significantly in many aspects, as I can see when I go back to read my first submissions.

I am also feeling more confident in general, and in my communications. I experienced this during my two internships, where I had direct contact with stakeholders and engaged in business conversations as a natural English speaker.

Overall, during this dissertation, I observed a huge improvement across my entire skill set, particularly my research and communication skills. This experience will contribute to my professional career in marketing.

7.5. Personal limitations

During the dissertation, I worked at an internship for three months, Monday to Thursday. The new job also required dedication and time, for which it competed with my dissertation. In order to obtain good results and proper research, I dedicated time in the evenings, days off and most weekends.

Time Management

Time management had always been an issue for me. In the past, I had underestimated how long I would need to complete tasks. When coming close to deadlines, I became overstressed. However, in this study I have improved my time management. As I had to divide my time and dedication between the Marketing Executive Internship and my own research, I kept a timetable (See table 10) of the time I spent on each task and what was still to be done. This allowed me to manage my research with less stress.
7.6. Conclusion

As I hope to develop my professional career, undertaking an MBA was one of the best decisions I could have made. The new skills and knowledge I acquired during the course will benefit my personal and professional life. I could see the difference that the course had made in my life when I began the Marketing Executive internship. I have a background in journalism, but I did not have experience working in marketing. The company that I worked for was a mobile marketing firm working in emerging markets. I was concerned at first because of my lack of experience. However, once I began to notice that everything I had learned during the course, even from the Financial Analysis class, applied to my role, I became more confident. For example, I could understand the business vocabulary, knew what a PESTEL analysis was, and could conduct market research and competitor analysis. All of this I learned in the classroom. The internship put my interpersonal skills, critical thinking,
leadership, and communication skills into practice. Most importantly, my self-confidence increased.

In the future, I hope to work in a notable company that offers good working conditions and career progression. I am aware of the fact that I have little experience in the field, and it won’t be easy. However, I am confident that the MBA from Dublin Business School will open lots of doors for me and help me stand out from the crowd.

Following the MBA, I am thinking and feeling differently. I have matured, and am now more confident giving my opinion and forming my own views. I am more communicative and better informed. Personally, I would highly recommend the MBA course, as it is an incredible experience with many challenges, but all worthwhile in the end.
References

A


B


C


D


Data protection Commissioner (no date2) ‘Law on Data Protection’. Available at: https://www.dataprotection.ie/docs/LAW-ON-DATA-PROTECTION/795.htm (Accessed 12 August 2015).


IDMA (no date) ‘Who we are’. Available at: http://idma.ie/who-we-are/ (Accessed 18 July 2015).


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Appendix A: Participants’ Inform Consent

Consumer awareness of Data Protection

Dear Participant,

My name is Daiane Leal Gomes. I am an MBA student at Dublin Business School. I am doing research as part of my dissertation which aims to test consumer awareness in Ireland about their data protection online and if being targeted with or without consent by digital marketing campaigns affected their online behaviour.

The study normally takes 5 min. with 28 questions to be answered. You may decide to stop being a part of the research study at any time without explanation required from you. You have the right to ask that any data you have supplied to that point be withdrawn / destroyed.

You have the right to omit or refuse to answer or respond to any question that is asked of you.
You have the right to have your questions about the procedures answered. Please feel free to ask me any questions before the study begins.

I am grateful to you for taking the time to answer this questionnaire. For further enquires contact me at: daiane@lealgomes.com

The data I collect does not contain any personal information about you except demographic factors. Your information will remain confidential and only be used for academic purposes.

I and my supervisor Brid Lane will be glad to answer your questions about this study at any time. You may contact my supervisor at: brid.lane@dbs.ie – DBS phone number: (01) 417 7500.

Consent:__________________________
Appendix B: Questionnaire

Section A – Demographics

2. Are you living in South Dublin?
   
   Mark only one option
   
   ☐ Yes
   ☐ No

2. Which of the following describes how you think of yourself?
   
   Mark only one option
   
   ☐ Female
   ☐ Male

3. What category best describes your annual household income?
   
   Mark only one option
   
   ☐ Less than €24,999
   ☐ €25,000 to €49,999
   ☐ €50,000 to €99,999
   ☐ €100,000 or more

4. What is the highest degree or level of education you have completed?
   
   Mark only one option
   
   ☐ Leaving Certificate
   ☐ Undergraduate degree
   ☐ Postgraduate degree

5. In which category is your age?
   
   Mark only one option
   
   ☐ 18-24 years
   ☐ 25-34 years
   ☐ 35-44 years
   ☐ 45-64 years
☐ 65-74 years
☐ 75 years or older

Section B – Information Sharing

6. What do you mostly use internet for?
   Check all that apply
   □ Search Engine (Google, Yahoo!, Bing...)
   □ Online Shopping
   □ Social Networking
   □ Online News
   □ Email
   □ Others ________________________________

7. What kind of personal information do you share on social media?
   Check all that apply
   □ Full name
   □ Date of Birth
   □ Location History
   □ Photos
   □ Credits Card number
   □ Address
   □ Telephone Number
   □ I don’t use social media
   □ Others ________________________________

8. What kind of personal information do you share with the websites you use? (Digital Footprint)
   Check all that apply
   □ Full name
   □ Date of Birth
   □ Location History
Section C – Online activity

9. Do you share your private information online with brands that have a good reputation?
   Mark only one option
   □ Yes
   □ No
   □ Not sure
   □ Depends of the brand
   Brand examples____________________________________________

10. Are you satisfied to share your sensitive data in order to get a personalised service or advertisement?
    Mark only one option
    □ Yes
    □ No
    □ Not sure

11. Would you consent to share your personal information with marketing companies in exchange for rewards?
    Mark only one option
    □ Yes
    □ No
    □ Not sure
    □ Depends of the reward
    □ Depends on the company
    Example: ________________________________
12. From question 11 would you change your mind if you knew that the company could be sharing your personal information with third parties?

*Mark only one option*

- [ ] Yes
- [ ] No
- [ ] Not sure
- [ ] Depends of the reward

Example: ________________________________

13. Are you aware that data brokers collect, process and sell your information for third parties?

*Mark only one option*

- [ ] Yes
- [ ] No
- [ ] Not sure

14. Are you aware that your data is being collected, processed and shared by advertising companies for marketing purposes?

*Mark only one option*

- [ ] Yes
- [ ] No
- [ ] Not sure

15. Are you aware of the extent of information collected from you in your day-to-day online activities?

*Mark only one option*

- [ ] Yes
- [ ] No
- [ ] Not sure

16. Do you know what Big Data is?

*Mark only one option*

- [ ] Yes
- [ ] No
- [ ] Not sure
17. Do you know about the “Cookie Law”?
   *Mark only one option*
   - [ ] Yes
   - [ ] No
   - [ ] Not sure

18. Have you stopped using a website that requested your permission to allow Cookies in your Browser?
   *Mark only one option*
   - [ ] Yes
   - [ ] No
   - [ ] Sometimes

19. Do you read Terms and Conditions before signing online for anything?
   *Mark only one option*
   - [ ] Yes
   - [ ] No
   - [ ] Sometimes

20. If your answer for the question 19 was YES, why?
   *Mark only one option*
   - [ ] I care about my rights
   - [ ] I want to understand what I am agreeing with
   - [ ] I think it is interesting
   - [ ] Other ________________________________

21. If your answer for the question 19 was NO, why not?
   *Mark only one option*
   - [ ] It is too long
   - [ ] Boring to read
   - [ ] Difficult to understand
   - [ ] It won't change my decision
   - [ ] I don't think it is important
   - [ ] Other ________________________________
Section D – Data protection

22. Are you aware of your right to privacy and your data protection online?
   *Mark only one option*
   - Yes
   - No
   - Not sure

23. Do you know about the Data Protection Commission? [www.dataprotection.ie](http://www.dataprotection.ie)
   *Mark only one option*
   - Yes
   - No
   - Not sure

24. Do you think the EU protection law helps control your personal data?
   *Mark only one option*
   - Yes
   - No
   - Not sure

25. Are you aware of the new Electronic Privacy Regulations?
   *Mark only one option*
   - Yes
   - No
   - Not sure

26. Do you feel confident that the new Electronic Privacy Regulation will help protect your private information?
   *Mark only one option*
   - Confident
   - Very Confident
   - Not Confident
   - Not sure
Final Questions

27. Do you feel confident that you can control the amount personal data being shared?

*Mark only one option*

☐ Confident
☐ Very Confident
☐ Not Confident
☐ Not sure

28. Do you feel confident that you can control the type of personal data being shared?

*Mark only one option*

☐ Confident
☐ Very Confident
☐ Not Confident
☐ Not sure

Thanks for your time!