

Submission of Thesis and Dissertation

National College of Ireland Research Students Declaration Form (*Thesis/Author Declaration Form*)

Name: _____

Student Number: _____

Degree for which thesis is submitted: _____

Material submitted for award

- (a) I declare that the work has been composed by myself.
- (b) I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.
- (c) My thesis will be included in electronic format in the College Institutional Repository TRAP (thesis reports and projects)
- (d) ***Either*** *I declare that no material contained in the thesis has been used in any other submission for an academic award.
Or *I declare that the following material contained in the thesis formed part of a submission for the award of

(*State the award and the awarding body and list the material below*)

Signature of research student: _____

Date: _____

**An Examination of the Key Drivers that Influence a
Consumer's Willingness to Adopt Mobile Marketing in an
Irish Context**

By

Barrie Kelly

MSc in Marketing

School of Business

National College of Ireland

2013

Submitted to the National College of Ireland on September 9th, 2013

Abstract

The mobile industry over the past decade has seen exponential growth being realised and its one of the few innovative technological devices that has managed to achieve global acceptance with relative ease. The introduction of the smartphone has redefined the industry and given marketers new innovative marketing tools to target the consumer on a one to one basis.

However, the speed of the integration of new mobile marketing tools into the mobile sphere has left marketers without a true understanding of what consumers' perceptions and attitudes are to these innovations and how it affects their overall adoption of mobile marketing. The academic literature pertaining to this area is scarce and is in need of a complete rework to incorporate the impact of the smartphone. This study aims to bridge the gap between consumers' perceptions and attitudes toward mobile marketing and the impact of the smartphone. Underlying the research is a set of hypotheses developed from the current literature which will be tested through a quantitative survey instrument. The data will be analysed using non – parametric tests such as Kruskal Wallis, Mann Whitney U and Spearman's Rank Correlation.

The empirical results found that perceived value and gender were particularly significant factors that influence an Irish consumer's willingness to adopt mobile marketing.

Declaration of Authorship

I Barrie Kelly, declare that this dissertation is the end result of my own work and that due acknowledgement has been given in the bibliography and references made to all sources, be they printed, electronic or personal.

Signed.....

Barrie Kelly

Student Number: X11101164

Date: 9th September 2013

Acknowledgements

Firstly, I'd like to acknowledge and thank my family for all their love and support that they have given me over the past two years. I couldn't have done this without it.

I'd like to give huge thanks my supervisor, Michael Bane for all his guidance over the duration of this dissertation. The help and advice offered was invaluable and allowed me to complete this dissertation to the best of my ability.

Last but not least, I'd like to thanks my close friends for the support they have given me over the duration of this study. A special acknowledgement should be given to Ciaran Jennings who was there in times of need.

Table of Contents

	Page
Abstract	i
Declaration	ii
Acknowledgements	iii
Table Of Contents	iv
List of Tables	vii
List of Figures	viii
1. Introduction	1
1.1 Background of Mobile Industry.....	1
1.2 Current Academic Literature.....	4
1.3 Aim of Study.....	4
2. Literature Review	6
2.1 The Evolution of Mobile Marketing.....	6
2.2 Innovations within the Mobile Industry.....	9
2.2.1 Introduction to Mobile Innovation.....	9
2.2.2 The Birth of SMS.....	10
2.2.3 The Rise of the Smartphone	11
2.2.4 QR Codes.....	12
2.2.5 Mobile Applications.....	13
2.2.6. Mobile Wallets.....	14
2.3 Innovations in Mobile Marketing Practice.....	15
2.3.1 SMS, Location Based and Proximity Marketing.....	15
2.3.2 Mobile Advertising.....	17
2.4 The Consumer and Mobile Marketing.....	18
2.4.1 The Contemporary Consumer: Profile of Gen X and Y.....	18
2.4.2 Drivers for Adoption of Mobile Marketing.....	20
2.4.2.2 Literature related to Mobile Marketing Adoption.....	22
2.4.2.3 Innovation/Technology Adoption.....	24
2.4.2.4 Trust, Privacy and Permission Marketing.....	25
2.4.2.5 Attitudes.....	26
2.5 Conclusion from Literature Review.....	27
3. Research Methodology	29
3.1 Research Question.....	29
3.2 Research Objectives	31
3.2.1 Research Objective 1.....	31

3.2.2 Research Objective 2.....	32
3.2.3 Research Objective 3	33
3.2.4 Research Objective 4.....	35
3.3 Research Philosophy.....	36
3.4 Research Strategy.....	37
3.5 Research Approach.....	38
3.6 Questionnaire.....	40
3.7 Primary Data Collection.....	42
4. Analysis & Findings.....	44
4.1 Data Analysis Technique.....	44
4.2 Validity & Reliability.....	44
4.3 Descriptive Statistics.....	46
4.3.1 Key Demographics.....	46
4.3.1.1 Question 1 – Gender.....	46
4.3.1.2 Question 2 – Age.....	47
4.3.1.3 Question 3 – Education.....	48
4.3.1.4 Question 4 – Occupation.....	49
4.3.2 Mobile Phone Usage.....	51
4.3.2.1 Question 5 - Phone Type.....	51
4.3.2.2 Question 6 - Frequency of Mobile Change.....	52
4.3.2.3 Question 7 - Connect to Internet.....	53
4.3.2.4 Question 8 – Download from Internet.....	54
4.3.2.5 Question 9 – Text Message Sent/Receive Daily.....	55
4.3.2.6 Question 10 – Top Functions Used.....	56
4.3.2.7 Question 11 – Ads Received on a Daily Basis.....	57
4.3.2.8 Question 12 – Ads Received with an Incentive.....	58
4.3.2.9 Question 13 – Purchases on a Mobile Phone.....	59
4.3.3 Attitudes and Perceptions of Mobile Marketing.....	60
4.4 Inferential Statistics.....	65
4.4.1 Methods for Analysis of Variance.....	65
4.4.1.1 Age.....	66
4.4.1.2 Gender.....	67
4.4.1.3 Occupation.....	67
4.4.1.4 Education.....	68
4.4.2 Factor Analysis & Spearman’s Rho Rank Correlation Tests.....	68
4.4.2.1 Factor Analysis.....	68

4.4.3 Analysis of Key Constructs.....	75
4.4.3.1 The Components of the Model.....	75
4.4.3.2 Perceived Value.....	77
4.4.3.3 Shopping Styles.....	79
4.4.3.4 Trust.....	80
4.4.3.5 The Key Demographics.....	81
5. Discussion.....	83
5.1 Restatement of Aims and Objectives.....	83
5.2 Summary of Key Findings.....	85
5.3 Interpretation of Findings.....	87
5.3.1 Smartphone Adoption.....	87
5.3.2 The Personal Device.....	87
5.3.3 Value is Critical.....	88
5.3.4 No Relation to Trust.....	89
5.3.5 Shopping Styles Not Compatible.....	90
5.3.6 The Demographics.....	91
5.3.7 Comparisons to Adapted Study.....	92
6. Recommendations.....	94
7. Research Limitations and Critical Appraisal of Methodology.....	95
8. Conclusion.....	97
9. Ethical Issues.....	98
References.....	99
Bibliography.....	114
Appendices.....	115
Appendix 1 – Questionnaire.....	115
Appendix 2 – Results from Findings.....	118

List of Tables

	Page
Table 1: Ranked Means of Variables.....	62
Table 2.1 Factor Analysis.....	70
Table 2.2 Factor Analysis Rotated Component Matrix.....	70
Table 2.3 Factor 1 – Shopping Styles (Spearman’s Rho Rank Correlation).....	72
Table 2.4 Factor 2 – Perceived Value (Spearman’s Rho Rank Correlation).....	74
Table 2.5 Factor 3 – Trust (Spearman’s Rho Rank Correlation).....	75

List of Figures

	Page
Figure 1: A Timeline of the Evolution of Mobile Marketing.....	8
Figure 2: Literature Pertaining to Adoption of Mobile Marketing.....	21
Figure I: Response Summary Q1 – Gender.....	46
Figure II: Response Summary Q2 – Age.....	47
Figure III: Response Summary Q3 – Education.....	48
Figure IV: Response Summary Q4 – Occupation.....	49
Figure V: Response Summary Q5 – Phone Type.....	51
Figure VI: Response Summary Q6 – Frequency of Mobile Change.....	52
Figure VII: Response Summary Q7 – Connect to Internet.....	53
Figure VIII: Response Summary Q8 – Download from Internet.....	54
Figure IX: Response Summary Q9 – Text Messages Sent/Received Daily.....	55
Figure X: Response Summary Q10 – Top Functions Used on Phone.....	56
Figure XI: Response Summary Q11 – Ads Received on a Daily Basis.....	57
Figure XII: Response Summary Q12 – Ads Received with an Incentive.....	58
Figure XIII: Response Summary Q13 – Purchase Intent through a Mobile.....	59
Figure XIV: Scatterplots and Spearman’s Rank Correlations - Perceived Value	77
Figure XV: Scatterplots and Spearman’s Rank Correlations - Trust.....	79
Figure XVI: Scatterplots and Spearman’s Rank Correlations (Gender).....	80

1. Introduction

1.1. Background of the Mobile Industry

With the rapidly changing communications environment, companies are looking to get better value for their marketing expenditures which in turn means they are looking to reach their intended target market more efficiently (Webster, 1992). Mass markets are becoming harder to reach as they are fragmenting and becoming bespoke in their own right (Peppers *et al* (1999). Marketing communications are now looking towards mobile marketing as these targeted one to one interactions have risen in importance.

The adoption of mobile phones has been one of the most conspicuous social changes to happen over the past twenty years (Pedrozo & Wilson (2004). Ever since the 1990's the uptake of mobile phones has risen exponentially within developed economies (Bauer *et al*, 2005). In 1997, 215 million people were using mobile communication devices worldwide whereas by 2003 that figure rose to 1.16 billion. (Bauer *et al*, 2005). Today, mobile phone penetration rate is at 96% globally with over 6.8 billion mobile subscriptions signed up (ITU, 2013).

The mobile phone has become a product that every generation seems to have taken to and it has achieved global acceptance in such a short period of time (Dehkordi, Rezvani, Rahman & Fouladivanda (2012). It is clear that the mobile phone is now an engrained component of society and it gives valid reason for why marketers should focus on developing mobile marketing strategies. Also, with new mobile device innovations such as smartphones arriving over the past few years, the growth in the mobile sector should continue to rise exponentially.

The introduction of the smartphone and its integration of the internet has altered the entire media ecosystem and the way that consumers receive advertising and marketing messages (Precourt, 2009). Research firm Red C (2012) compiled a report where they announced that the number of smartphones owned globally nearly doubled from 19% in 2010 to 35% in 2011 and they expect this figure to continue to rise rapidly.

The role of smartphone adoption amongst consumers will have a huge role to play in the expansion of mobile marketing as a strategic discipline. The ability to reach consumers 'anytime' and 'anywhere' represents a huge opportunity for marketers to fully utilise the mobile channel for marketing purposes (Grant & O'Donohoe, 2007; Roach, 2009). New innovative mobile marketing tools such as QR codes, mobile wallets, location based services and rich media advertising have widened the scope to reach the consumer using these various mobile marketing tactics.

SMS advertising messages have also proved to be a popular channel for mobile marketers but as with the dynamic nature of mobile technology, new innovations in mobile advertising have caught the attention of marketers. Such an innovation is rich media content. Rich media is seen as ways to inspire interaction between customers and a company through smartphone browsing (Garrity, 2011). Going back to the considerable growth levels of smartphone penetration, it seems that rich media content is the natural step forward for mobile marketers. More and more companies are optimising their websites to incorporate the mobile platform (Stockfleith Larsen, 2012).

Marketers now need to integrate mobile marketing efforts into their marketing strategies because quite simply it makes business sense (Solomon 2011).

Smartphones have essentially brought digital marketing to the mobile platform. This has given marketers more scope to reach the consumers across different architectures since it has the internet at its disposal (Dehkordi *et al* (2012).

From a consumer perspective, the truly unique aspect of the mobile device is that it is remarkably personal (Tahtinen & Salo, 2003). Consumers use their phone for connecting with their friends and family but not only that, they consider their mobile phone an extension of themselves and a representative of their personality (Sultan & Rohm, 2006). Consumers usually have their mobile device on them everywhere they go and rarely leave home without it (Persaud & Azhar (2012). Marketers have realised that the unique marketing opportunities that mobile offers however, it is essential that they conduct their marketing communications in the most effective way so as not to 'intrude' on the consumers 'personal' mobile phone. In order for marketers to become effective in their mobile marketing communications they must recognise the key factors that influence a consumer's willingness to adopt mobile marketing. Understanding the consumer's attitudes and perceptions towards mobile marketing will be a key component of this study.

1.2 Current Academic Literature Available

In terms of marketing literature, there has been a scarce amount of research completed in the field of mobile marketing and especially any that include the impact that the smartphone has had on the mobile industry. Persaud & Azhar (2012) explore consumer perception and behaviour in regards to mobile marketing through a smartphone however, Bauer *et al* (2005), Roach (2009), Tsang *et al* (2004) largely look at consumer perception and attitudes towards mobile marketing through SMS on a traditional feature phone. Leppaniemi (2008) notes that mobile marketing is still a relatively new discipline in regards to marketing practice and as the mobile industry goes through these innovative changes it has been experiencing for the past decade, there will be a drastic need for up to date research on how to get through to the consumer. All relevant academic literature was covered in the literature review chapter.

1.3 Direction of study

This particular study will aim to examine the factors that contribute to an Irish consumer's willing to adopt mobile marketing as there is very little academia written about consumer adoption of mobile marketing in an Irish context. The mobile industry is experiencing growth year on year especially with smartphone adoption which has a positive impact on mobile marketing communications. The paper's aims to be added to the body of growing literature around the topic area of consumer adoption of mobile marketing.

This study contains an overall research question followed by four objectives that resulted in six hypotheses being formulated. The research question is:

“What key drivers that contribute to a consumer’s willingness to adopt mobile marketing are applicable in an Irish context?”

There were six elements that have arisen from the literature that can be associated with a consumer’s willingness to adopt mobile marketing. They were perceived value, shopping styles and trust along with the key demographics of age, gender and education. The hypotheses proposed for each are:

H1. Perceived Value is positively related to an Irish consumer’s willingness to adopt mobile marketing.

H2. Trust is positively related to an Irish consumer’s willingness to adopt mobile marketing

H3. Shopping styles that are compatible with mobile marketing are positively related to an Irish consumer’s willingness to adopt mobile marketing.

H4. A higher educated consumer is more likely to adopt mobile marketing

H5. Younger Irish consumers are more likely to be willing to adopt mobile marketing

H6. Gender will have no effect on an Irish consumer’s willingness to adopt mobile marketing

A pre-validated survey instrument adapted from Persaud & Azhar (2012) will be applied to this study. The research is based on 116 respondents who completed an online survey. The quantitative data will be analysed through a series of tests that include a Mann Whitney U, Kruskal Wallis and Spearman’s Rho Rank Correlation.

2. Literature Review

2.1. The Evolution of Mobile Marketing

There are many definitions of mobile marketing available but the most common opinion is conveyed by Karjaluoto & Leppaniemi (2005) who describe mobile marketing quite simply as “the use of the mobile medium as a means of marketing communication”. Leppaniemi (2008) supports this definition by further stating that mobile marketing is “using interactive wireless media to provide customers with time and location sensitive, personalised information that promotes goods, services and ideas, thereby generating value for all stakeholders. These definitions help put into perspective how impactful mobile marketing can be as the one key advantage is that mobile marketing has the ability to reach the target consumers anywhere anytime in order to promote the selling of products or services.

Mobile marketing or m-marketing as it is commonly known as is evolving at a rapid pace which is evident by the growth of internet usage globally through a smartphone which has risen from 5.42% to 10.44% in 2013 (Smart Insights, 2013). There are a vast amount of innovations being introduced quarterly and these technological developments have altered mobile marketing philosophy amongst marketing practitioners (Barwise & Farley, 2005). Leading companies around the world have been led to adopt mobile marketing strategies that allow for their advertising message to stand out amongst the compacted and cluttered market (Zhang & Mao, 2008).

In terms of the evolution of mobile marketing, it really stems from the explosion worldwide of consumers acquiring mobile handheld devices and as mobile device ownership soared so did the subscription to services offered through the mobile

platform (Shankar *et al*, 2010). These subscriptions grew worldwide at a compounded rate of 24% from 2000 to 2008 with the number of worldwide subscribers rising to near 6 billion in 2011 (International Telecommunications Union, 2012). Weatherhead (2011) outlines that the evolution of mobile marketing has continued to escalate with the mass adoption of smart phones worldwide. According to market research firm Gartner (2013) smartphone sales are expected to reach 1 billion units in 2013 compared to 675 million in 2012. Between April and June in 2013, 225 million smartphones were sold globally which for the first time ever in a quarter outsold classic phones (Gartner, 2013). In an Irish context, market research firm Red C (2012) predicted that by the end of 2012, 71% of all Irish households will own a smartphone which is a growth of 22% on 2011. These results pave the way for future growth in not only sales in the mobile sector but for innovative marketing tools to be introduced. It also creates a hugely beneficial knock on effect for marketers as the higher smartphone sales rise the more the consumer has the ability to access full web browsing capability on the go which makes mobile marketing a very attractive opportunity for marketers (Weatherhead, 2011).

Below is a timescale as adapted from Marketing Pilgrim (2012) a highly rated marketing online blog. There are also some additional stats taken from a Red C report (2012) which identifies the current mobile and social trends that are evident around the globe.

Year	Timeline
1973	Mobile phone invented by Martin Cooper although this technology would not become widely used until the early 1980's.
1993	SMS texting become available however only in limited markets such as Finland, Sweden, Japan and Norway.
1994	QR codes are invented and were first used to track the production lines at Toyota.
1996	Mobile web access is introduced through the Nokia 9000 Communicator. This is the first time a mobile device has ever been able to access the internet.
2003	Open texting allows for text messages to be sent across all carriers and the service is becoming incredibly popular.
2003	Short Codes are introduced to differentiate normal users from value added services like TV voting or buying ringtones.
2005	Major organisations around the world start to recognise that text message marketing campaigns can prove to have a fruitful return.
2007	The introduction of the iPhone along with the arrival of smartphones changed the landscape of mobile marketing as marketers now had another mobile channel to leverage. The mobile internet browser.
2007	Text messaging surges and actually surpasses voice calls in the US.
2011	The number of smartphone subscriptions owned globally rose from 19% in 2010 to 35% in 2011 and this is expected to rise further in 2012 and beyond.
2012	Mobility and ease of access prove to be the main attributes of smartphones as consumer conduct nearly 25% of their most frequent online activities on their mobile device.

Figure 1: A Timeline of the Evolution of Mobile Marketing (Source: Marketing Pilgrim (2012; <http://bit.ly/1dDKqCG>))

2.2 Innovations within the Mobile Industry

2.2.1 Introduction to Mobile Innovation

In order to complete a comprehensive review of the literature pertaining to the research question, attention needs to be drawn to an understanding of the innovations that have contributed to the successes of mobile marketing. Figures previously stated in this paper have expressed that technological advancement in the mobile marketing sector have contributed to its fast evolving nature.

Sultan & Rohm (2005) convey that mobile phones are fast becoming ubiquitous and this is evident in markets such as Ireland where there is nearly 100% market penetration for the mobile phone and 57% penetration for the smartphone (Our Mobile Planet, 2013). Marketers are now understanding that mobile commands the upmost attention as a sales and marketing tool because of its near complete penetration of the population (Barnes & Scornavacca, 2004; Barwise and Strong, 2002).

Successes in mobile innovation began with SMS or short message service as a low cost, high impact communication medium that can be received by almost all mobile phone users (Rettie & Brum, 2001). Therefore, SMS innovation remains an important aspect of this study as it is a key factor of how mobile as a marketing channel developed.

2.2.2. The Birth of SMS

SMS began with the concept of using the mobile platform as a signalling channel and was created by the Franco-German GSM corporation in 1984 (Karlsson & Lugn, 2009). The first SMS text message was sent from a computer to a mobile device on the Vodafone network in the UK back in 1992 and simply read “Merry Christmas” (Mobilepronto, 2013).

The real explosion of SMS usage came in the late 1990’s with the opening up of cross network texting. A report by Cole (2010) identifies the key elements that contributed SMS popularity which were: adoption of mobile subscriptions, the globalisation of SMS, the low cost of sending messages, and the rise in the exchange of text messages.

The total number of SMS sent globally tripled between 2007 and 2010, from an estimated 1.8 trillion to 6.1 trillion. In other words, close to 200 000 text messages are sent every second (ITU, 2010). Those figures rose to 7.8 trillion globally in 2011 and 9.6 trillion in 2012 (Portio Research, 2012). It is clear from the literature and figures reported in the above study that the growth of SMS text messaging has risen exponentially since the late 1990’s. This rise has given prominence for the ability to merge SMS text messaging with mobile commerce or as its better known ‘m-commerce’ (Xu, Teo & Wang, 2003). Xu, Teo & Wang (2003) outlines the key characteristics that recognises SMS as an m-commerce opportunity as low cost, the convenience of ‘anytime and anywhere’, the ‘personal’ characteristic and the ‘location awareness’ characteristic.

The introduction of the smart phone was a game-changer in terms of how it helped develop the mobile marketing sector and it is predicted that mobile platforms will be a catalyst for the next generation connected experience (Forrester, 2013). Persaud & Azhar (2012) establishes that mobile innovations such as QR codes, mobile applications, and mobile payment systems have shaped the mobile industry and changed how marketers now conduct their online business.

2.2.3. The Rise of the Smartphone – A Game Changer for Mobile Marketing

Precourt (2009) argues in their study that the introduction of the smartphone has changed the entire media ecosystem and the way consumers receive advertising and marketing messages. According to a study by Deloitte (2012), the idea of smartphones being restricted to purely business is now gone with evidence of the exponential growth of the consumer market and integration into society as a whole.

Hackbert (2012) states that smartphone as a percentage of mobile phones will grow from 13.9% in 2009 to 25.2% in 2014 globally. In-Stat (2010) forecasts that smartphones will grow from just below 20% of all phones sold in 2010 to 43% of all handsets sold by 2013. The global smartphone adoption is under 20% (eMarketer, 2013) however, Ireland is substantially higher at 57%. The adoption figure in Ireland is showing substantial growth as it rose from 42.7% last year (Our Mobile Planet, 2013). The industry is moving extremely fast and getting more competitive in terms of operating systems with Apple, Android, Windows Phone, Blackberry and Symbian available to the consumer (Ansinn, 2010).

Mutchler, Shim and Dustin (2011) quite simply state that “the smartphone has become a modern day Swiss Army knife, putting marketers not only in a multi-

channel environment, but a multi-purpose environment as well with that vast array of attributes now attached to a smartphone”. As stated by Persuad & Azhar (2010), the smartphone has multi-functionality which allows the consumer to access the internet, play games, play music, email and an array of other functions. Smartphone growth has really got the attention of marketers and most are coming around to the idea that mobile marketing is a vital component of their overall marketing strategy with it contributing to greater awareness and purchase intent (Mobile Marketing Association, 2012) The smartphone with its internet functionality has paved the way for many other mobile innovations such location based marketing, Bluetooth and mobile wallets that will be research in this paper.

2.2.4. QR Codes

Introduced in 2004 by the Japanese company Denso-Wave, the QR code is a two dimensional barcode that was initially used for tracking inventory in vehicle parts manufacturing (Rouillard, 2008). QR codes are barcodes can be read on mobile devices through a downloadable app and can read many different types of information through its 360 degree barcode (Canadi, Hopken & Fuchs, 2010).

Kourtis (2011) points out such technological innovations as QR codes are simple and cost effective engagement devices that can be used in outdoor billboards, print ads and direct mail and opt-in services. Weidauer (2011) proposes that QR codes are a legitimate mobile marketing tool and explains how customers are looking for more and more information on products pre-purchase and QR codes can supply this through connectivity on their smartphones. Nevertheless, Pitney Bowes (2012) notes that the QR code is still in its infancy with just 15% of consumers from UK, US,

France and Germany having used a QR code. The challenge for marketers is to figure out how this innovative marketing tool can be integrated into the overall marketing strategy (Pitney Bowes, 2012).

2.2.5. Mobile Applications

There is a distinct lack of academic literature regarding marketing through mobile apps with studies mainly deriving from professional publications such as Marketing Week and Marketing News. Sullivan (2010) describes apps as “software designed to run on a smartphone or other mobile device”. From an entirely business generating perspective, (Ransom, 2009) identifies that if an app is well branded and well integrated into a company’s overall mobile marketing strategy it will contribute to generating buzz for the company and can help build awareness and strengthen customer engagement.

A report by 360i (2011), a mobile marketing research firm states that mobile applications have become a stable fixture in mobile media with the ever easing ability to acquire apps from smartphone manufacturers through their mobile stores. With for example over 350,000 daily activations of mobile apps on the Android operating system alone it is not hard to see the potential for apps to be seen as a bona fide marketing channel (Xu *et al*, 2011).

2.2.6. Mobile Wallets

The development of mobile payment solutions is largely based on the proliferation of mobile telecommunications technology and the wide use of mobile phones (Mallat, 2007). Mobile wallets are outlined by Au & Kauffman (2007) as “a mobile application that can support any payment system used to initiate, authorise and confirm an exchange for financial value in return for goods and services”.

There is a viewpoint that is shared between academics and practitioners alike that the success of mobile wallets is dependent on availability, reliability and acceptance from the consumer (Amoroso, 2012; Carr, 2008; Karnouskos & Fokus, 2004). Near field communications (NFC) is described by Karpinski (2011) “as a new technology that has the ability to turn smartphones into easy to use mobile payment method”. A report by a market research firm, ATKearney (2013) recounted that 50% of smartphones will be NFC enabled by 2015 with a value of \$50 billion being supported by mobile devices by 2016. The aforementioned report states NFC wireless technology through a smartphone can replace many of the payment structures used today such as replacing paper tickets on a train, replace cash and credit cards, vouchers and coupons and traditional keys and locks for houses and hotels.

2.3 Innovations in Mobile Marketing Practice

2.3.1. SMS, Location Based Marketing and Proximity Based Marketing

According to such academics such as Persaud & Azhar (2012) and Tsang *et al* (2004), the rapid proliferation of mobile phones has created an entirely new marketing stream to leverage advertising campaigns through. Barnes and Scornavacca (2004) argues in their paper that most marketing techniques in terms of mobile marketing that are used to reach consumers through SMS are push based and pull based. MMA (2006) states that push based mobile marketing refers to any content sent to the consumer on behalf of the advertiser/marketer through a mobile phone when the consumer has either given permission or have requested it. Pull based mobile marketing is where defined as any content that marketers/advertisers send to a consumers mobile device upon request shortly thereafter on a one time basis e.g. any marketing related communications sent to the consumer without their prior knowledge (MMA, 2006).

Similarly to push and pull mobile marketing, a report by Zoller *et al* (2001) lists three strategic advertising applications that can be *permission based*, *incentive based* or *location based services* advertising. Permissions based advertising is where there is permission given by the consumer to contact them with marketing messages about specific products. Godin (2008) explains that permission marketing ensures that people receive messages that are anticipated, personal and relevant to them. By a company choosing to seek permission from the consumer using the opt-in feature, the company will be considered to be trustworthy source and will reduce the effect of irritation from unsolicited text messages (Tsang *et al*, 2004; Barwise & Strong, 2002; Godin, 1999). Incentive based advertising is where a company provides

certain financial rewards to individual consumers who agree to receive advertising promotional material (Zoller *et al*, 2001). This present study aims to convey that this application is considered to be a more feasible application for mobile marketing along with permission based advertising because wireless technology makes it easier to reach consumers on an individual level.

The other strategic advertising application outlined by Zoller *et al* (2001) is location based services (LBS) marketing. Pura (2005) reports that location based services allow for the ability to reach identify the consumer's location at a particular time and is considered to be one of the most promising technological innovations to enter the mobile sector. This marketing tool communicates to the consumer through GPS and phone ID positioning all based on real time information (Berg Insight, 2012). PWC (2012) states that the opt-in function is critical for success in location based marketing as it ensures relevance for the consumer and allows marketers to collect information such as demographic, preferences and purchase habits in order to target more efficiently.

Proximity marketing is where an advertisement or marketing message is sent to the consumer through their mobile phone by way of a wireless delivery (Ojala, Kruger, Kostakos and Valkama, 2012). There are other forms of lesser used proximity marketing such as Wi-Fi and Infrared but the most common method adopted by marketers is through Bluetooth technology due to it being enabled on smartphones which have a rising market penetration rate across populations around the globe (Ojala *et al*, 2012). Proximity marketing using Bluetooth technology has several characteristics that are quite unique to its communication method as it is able to deliver personal, interactive and context aware marketing messages to the consumer

based on their current location ensuring more bespoke targeting (Azares, 2012) e.g. mobile coupons sent to a consumer whenever they enter a shopping centre.

2.3.2. Mobile Advertising

Another technological innovation introduced over the past few years is that of rich media advertising formats to the mobile platform. Andrews *et al* (2008) clarify rich media to be "technologies that enable users to engage in interactive communication with the ability to see, hear and interact with multiple communication streams".

Adfonic (2012) informs that mobile advertising has grown massively over the past few years down to the adoption of the IOS and Android operating systems on smartphone devices. They go on further to argue that rich media advertising has the ability to track consumer interaction with their ad after they have clicked on it which allows for a more insightful look at consumer behaviour through a mobile device.

Rich mobile media formats can be seen right across the mobile interface where they are used on companies' mobile sites, pre-roll advertising on sites such as channel 4's 4OD and social media timelines such as Facebook (MMA, 2008).

Celtra (2012) gave reasons for integration of rich media which was that it aims to drive higher levels of engagement with the company through interactive creative advertising. This in turn will help deliver brand awareness and lead the consumer on to brand loyalty. Since rich media is more engaging than static advertising it should encourage sharing of branded content. There is however a distinct gap in academic literature around the topic of mobile advertising innovations such as rich media advertisements which limits the ability to approach the area from a purely academic

standpoint. Most of the academic literature available is focused towards consumer perception and attitudes towards mobile marketing and advertising.

2.4. The Consumer and Mobile Marketing

2.4.1. The Contemporary Consumer: A Profile of Generation X and Y

Mobile marketing as noted in this chapter is very closely aligned with innovation.

However, innovative marketing tools such as Bluetooth and location based services are only beneficial to marketers if who know which consumer segment to target.

According to Williams & Page (2011) not every consumer generation is the same and they must not be treated that way by marketers. Generations are split into cohorts or groups of people who live during the same period of time and experience similar events at a similar age. The two generations that will provide the most relevance to this paper are what are known as ‘Generation X’ and ‘Generation Y’.

The Generation X cohort is defined as those who were born between 1965 and 1979 (McCrindle & Wolfinger, 2011). Generation X individuals are portrayed by Littrell, Ma & Halapete (2005) as well educated, media-savvy with the computer and internet, sceptical of authority, self-reliant and pragmatic. In a marketing sense, they respond to mobile technology and are sometime referred to as the “Connected Generation”, they also enjoy the flexibility and freedom to choose which marketing promotion to respond to.

The Generation Y cohort or ‘Echo Boomers’, ‘Millennials’ as they are known, were born during the period 1980 – 1994 (Deloitte, 2012). According to Kotler & Keller (2011) the Millennials were pretty much wired from birth having been born into an era where they’ve had the ability to play video games, access the internet and

communicate with friends through their personal mobile handsets. They've been raised with a degree of affluence, are technologically astute and aware of the environment and prominent social issues (Gronbach, 2008). Gronbach (2008) also states that they have a strong sense of freedom and feel they are independent as individuals therefore they feel immune to wide-scale marketing campaigns. As reported by Deloitte (2012), the Irish Generation Y cohort are a confident empowered generation with a sense of self-worth and responsibility that has never been seen in Ireland before.

So, from a marketing perspective, there is unmistakeably a huge challenge facing marketers in their ability to successfully target Generation Y consumers. Kotler & Keller (2011) discuss the fact that as Generation Y consumers are put off from the 'hard sell', marketers have taken to different experiential approaches to reaching the consumer such as student ambassadors, creating online buzz and sponsorship of so called 'cool' events. Mobile marketing by nature is experiential and can allow for that one to one experience and that 360 degree product experience that they cannot get from traditional media (CMO, 2012). This opens up many channels for mobile marketers as Generation Y and Generation X to an extent are open to new technological innovations and are more likely to adopt than other cohorts (Williams & Page, 2010).

2.4.2 Drivers for Adoption of Mobile Marketing

2.4.2.1 Literature Related to Mobile Marketing Adoption

There is a proliferation of literature in the area of consumer adoption of mobile marketing and mobile advertising. This research paper identified the most common set of factors that contribute to mobile marketing mobile advertising adoption as outlined by previous academic research and grouped them together in terms of the construct that they belong to. This section will look at the motivating factors that contribute to mobile marketing and advertising namely innovation/technology adoption, knowledge, trust, privacy and permission, and attitudes and perceptions. Figure 2 below is a table consisting of any prevalent authors who have included one or all of the topics in their research.

Figure 2: Literature Pertaining to Adoption of Mobile Marketing

Concept	Author(s)
Innovation/Technology Adoption	<u>Rettie&Brum</u> (2001); <u>Shankar &Balasubramanian</u> (2009); <u>Gaoet al</u> (2010), <u>Bauer et al</u> (2005); <u>Leimpanemi</u> (2005); <u>Tornatzky& Klein</u> (1982); <u>Roach</u> (2009); <u>Rodgers</u> (1995); <u>Orr</u> (2003); <u>Jamieson & Bass</u> (1989); <u>Arts, Frambach&Bijmolt</u> (2011); <u>Goldsmith et al</u> (1995); <u>Ha and Stoel</u> , (2004); <u>Erogluet al</u> , 2003
Knowledge	<u>Shankar &Balasubramanian</u> (2009); <u>Leimpanemi</u> (2005); <u>Bauer et al</u> (2005); <u>Moreau et al</u> (2001); <u>Sheth</u> , (1968); <u>Jepesen</u> (2001); <u>Varnaliet al</u> (2010); <u>Moreau et al</u> (2001); <u>Barnes &Scornavacca</u> (2004); <u>Dickingeret al</u> (2004)
Trust, Privacy and Permission	<u>Al-Anask&Alwanas</u> (2010); <u>Bauer et al</u> (2005); <u>Grant &O'Donohoe</u> (2007); <u>Dickingeret al</u> (2004); <u>Al-Anask&Alwanas</u> (2010), <u>Leimpanemi</u> , (2005); <u>Sultan & Rohm</u> (2010); <u>Persaud&Anzhar</u> (2012); <u>Jayawardhenaet al</u> (2009); <u>McKnight</u> (2002); <u>Varnali&Toker</u> , 2010; <u>Jayawardhenaet al</u> (2009); <u>Merisavoet al</u> (2007); <u>Sheehan & Hoy</u> , 2000; <u>Gefenet al</u> (2003); <u>Pagani</u> , (2007); <u>Bart et al</u> , (2005); <u>Anderson &Weitz</u> (1989); <u>Kollock</u> (1999); (Tan & Sutherland, 2004)
Attitudes	<u>Graham</u> (2001); <u>Tseunget al</u> (2004); <u>Shankar, et al</u> (2010); <u>Ting et al</u> (2010), <u>Leimpanemi</u> , (2005); <u>Persaud&Anzhar</u> (2012); <u>Mehgdadi&Nusair</u> (2011); <u>Petruzzellis</u> (2007); <u>Haighirian& Inoue</u> (2007); <u>Bauer et al</u> (2005); <u>Carroll et al</u> (2007); <u>Barutcu</u> (2007); <u>Tsang et al</u> (2004); <u>Zeithaml</u> (1988); <u>Woodruff</u> (1997); <u>Chi, Chien& Tsai</u> (2010); <u>Mattson & Dubinsky</u> , 1987

2.4.2.2 Innovation/Technology Adoption

Tornatzky & Klein (1982) pioneered the field of research in innovation characteristics and adoption and the objective of their paper was to see if there was a relationship between the characteristics of an innovative product or service to innovation adoption and implementation. Their study was the foundation to studies such as Shankar & Balasubramian (2009) and Roach (2009) where they found that innovation attributes ‘compatibility’, ‘relative advantage’ and ‘complexity’ will

largely drive the individual consumer to mobile marketing adoption. They are elaborated further below:

- **Compatibility:** This describes the degree in which an innovation is perceived as compatible with the values and personal characteristics of the consumer.
- **Relative Advantage:** This refers to the degree to which an innovation is perceived as being better than the idea it supersedes i.e. DVD over VCR.
- **Complexity:** This describes the degree in which an innovation is perceived as relatively difficult to understand and use i.e. the easier the innovation is to understand the easier to adopt.

Shankar & Balasubramanian (2009) focuses on the customer decision process with mobile marketing outlines that with all innovation the relative advantage of adopting the product or service needs to be clear to the consumer.

Rodgers (1995) proposed a model that aimed to assess and predict the innovation adoption rate taking into account the consumers decision, the innovations attributes and the personal characteristics of the consumer. This model is called the 'diffusion of innovations' (DOI) model and theoretically suggests that when a new concept or innovation is perceived as new it comes to a crossroads in the decision making process of the consumer where they will either accept or reject based on a five step process which is (Orr, 2003):

- 1) **Knowledge** – person becomes aware of an innovation and has some idea of how it functions,
- 2) **Persuasion** – person forms a favourable or unfavourable attitude toward the innovation,

- 3) Decision – person engages in activities that lead to a choice to adopt or reject the innovation,
- 4) Implementation – person puts an innovation into use,
- 5) Confirmation – person evaluates the results of an innovation-decision already made.

Building on the diffusion of innovation model by Rodgers (1993), Jamieson & Bass (1989) implies that both the consumers purchase intentions and purchase behaviour are interchangeable to reflect adoption. However, Arts, Frambach & Bijmolt (2011) separates these two variables as they found that consumer's intentions to adopt innovations are often poor predictors of adoption behaviour. They conceive that innovation characteristics have a strong but slightly different effect on actual consumer adoption. Rogers (1995), Goldsmith et al (1995) and Ha and Stoel, (2004) indicate that innovative consumers are in general more educated and younger than the rest of the population, have higher incomes and are more often female than male so therefore more likely to adopt mobile marketing.

In a mobile marketing sense where there is a stream of constant innovation, the stated literature is highly relevant in terms of its characteristics.

2.4.2.3 Knowledge

Bauer *et al* (2005) argues that existing knowledge affects the cognitive processes that are associated with a consumer's decisions which implies that this knowledge is an important determinant of the customers willingness to adopt mobile marketing. This consumer's perception of a mobile innovation is more likely to be positive if they

have prior knowledge to its function and how to use it (Moreau *et al*, 2001; Sheth 1968). Mobile communications technology is the essential component of mobile marketing and the more familiar the consumer is with mobile communications in general the less barriers they have to adopting mobile services (Bauer *et al*, 2005).

Jeppesen (2001) takes a more tailored viewpoint on knowledge which relates to mobile marketing. The author states that as specialisation deepens, a person's knowledge becomes a key determinant in their production, their consumption and in their decision making process. This reflects on mobile marketing as it is still considered to be an experiential area of marketing therefore knowledge of what mobile marketing consists of and its benefits for the consumer is imperative for adoption (CMO, 2012). Barnes & Scornavacca (2004) and Dickinger *et al* (2004) imply that knowledge and acceptance of the mobile phone itself will contribute to mobile marketing success which will support the ever rising smartphone adoption rate around the globe.

2.4.2.4 Trust, Privacy and Permission

Grant & O' Donohoe (2007) state that mobile marketing is susceptible to fears of intrusion, a lack of trust and annoyance especially in the case of younger consumers where they tend to be more reluctant to accept marketing communications in general. Although as stated earlier in this research paper the benefits of mobile marketing, it appears that overcoming trust is an obstacle in the adoption of mobile services as many consumers are still hesitant about the idea of adopting mobile commerce and

sharing person information through online payment systems (Varnali & Toker, 2010).

McKnight (2002) also found that trust was a key component in the customers intention to make online purchases transaction i.e. E-Commerce. The previous author also argued that this should also be expected with mobile marketing where perceived risk and uncertainty is high, trust should influence consumers' intention to participate in mobile marketing.

However, there is a contrast in the viewpoint of the importance of trust in a consumer's acceptance of mobile marketing and advertising. A study by Merisavo *et al* (2007) found that trust was not a huge contributor to a consumer's willingness to adopt mobile advertising. Bauer *et al* (2005) doesn't include the trust component in their acceptance model and places more emphasis on factor like innovativeness and consumer attitude.

Godin & Peppers (1999) report that permission marketing is where a consumer explicitly gives a company their consent to companies to send them marketing communications and promotions in regards to products or services. The guarantee of a consumers privacy is essentially permission marketing and they would become concerned if unsolicited mail and text messages were being sent to them through their mobile device (Sheehan & Hoy, 2000). Sultan & Rohm (2008) outline that permission marketing gives the consumer a higher chance of receiving communications that are directly relevant to them and marketers can successfully target consumers as they are able to identify what products to market to them.

2.4.2.5 Attitudes

A number of research paper have been conducted where consumer attitudes are a core component of their mobile marketing acceptance model such as Bauer *et al* (2005) and Haighirian & Inoue (2007). Bauer *et al* (2005) found that perceived utility was one of the main factors influenced by consumer attitude that contributed to acceptance of mobile advertising. The aforementioned authors maintained that when a consumer feels like they can attain a perceived benefit from an advertising message, they are much more likely to accept mobile advertising communications. Carroll *et al* (2007) found that consumers are more likely to accept mobile marketing messages if there is an evident relevance to them and their needs.

Barutcu (2007) looks more at the shopping traits of the consumer and states that price conscious and more involves consumers have more positive attitudes towards mobile marketing as they see a direct value in coupons and discounts redeemed through their mobile phones. Petruzzellis (2007) illustrates that consumer consumption attitudes are context explicit personalities that link their personal values to that of their purchase behaviours. Tsang *et al* (2004) do recognise that there has been for a long time negative attitudes towards mobile advertising and conducts a model of acceptance that looks to address this. The model consist of factors such as entertainment, informativeness, irritation and credibility which are all aimed at influencing a positive consumer attitude change towards mobile advertising.

2.5 Conclusions from Literature Review

It can be seen from a review of the literature it is evident that the mobile industry is experiencing exponential growth year on year. The mobile industry is moving fast and the introduction of the smartphone has been the catalyst for the position that the mobile industry finds itself in today. Essentially the smartphone has brought the internet experience that is normally associated with PC usage into the palm of the consumer. The mobility and personalised nature of the smartphone has allowed for marketers to reach the consumer in a very targeted way using a range of innovative marketing tools.

The innovative marketing tools such as mobile wallets, location based services and mobile advertising are avenues that not all marketers are utilising at present but the potential for each is well documented and will continue to bring mobile marketing into the next decade. Mobile commerce is still considered to be in its infancy at the moment with consumers still to fully embrace mobile payment systems. This is the major challenge for marketers who need to ensure that they understand what motivates the consumer to adopt mobile marketing tools.

It has been highlighted in this review that there has been extensive research in the topic area of mobile marketing and advertising acceptance with a valid need to truly understand the consumer and how they will accept new innovations. There is however very little research completed that includes the channels that the smartphone has redefined. Mobile marketing has moved so fast over the past decade that the literature has failed to keep up. Apart from a scarce few research papers, this area remains largely untouched in terms of research. The most relevant paper appears to be Persaud & Azhar (2012) who integrate the smartphone into their acceptance study

and adapted it the Canadian market. So in conclusion, this paper will aim to look at what factors contribute to an Irish consumer's willingness to accept mobile marketing through a smartphone.

3. Research Methodology

3.1 Research Question

“What key drivers that contribute to a consumer’s willingness to adopt mobile marketing are applicable in an Irish Context?”

The overall objective of this research paper is to investigate the key attributes of consumers’ adoption of mobile marketing through a smartphone as outlined by Persaud & Azhar (2012) and apply it in an Irish Context. There are certain factors that can be attributed to a consumer’s willingness to participate in mobile marketing through a smartphone. These behavioural attributes are perceived value, trust, and shopping styles along with key demographic variables such as age, education and gender

The potential of mobile marketing for both marketers and consumers alike has risen dramatically over the past decade. It has been evident from research of the literature that innovation has been synonymous with the growth of mobile marketing and the introduction of the smartphone has redefined the whole mobile communication channel. Therefore this study also aims to assess Irish consumer adoption of innovative marketing tools such as Bluetooth and location based marketing. Mobile marketing in a traditional sense was primarily through a classic or feature phone and was limited to SMS and MMS therefore it was restricted in its reach.

Whilst numerous research studies over the past decade have been conducted to determine consumer attitudes and motivations towards mobile marketing and advertising (Heinonen & Strandik, 2003; Tsang *et al*, 2004; Leppaniemi & Karjaluoto, 2005; Al-alak & Alnawas, 2010; Grant & O’Donohoe, 2007; Merisavo

et al 2007; Bauer *et al*, 2005), innovation adoption (Bauer *et al*, 2005; Roach, 2009) and mobile marketing success factors (Huang, 2012), there has been very little research conducted in the area of consumer marketing adoption through the smartphone especially in a Irish context..

Consumer attitudes are also evolving with the introduction of new mobile marketing tools. Location based service users are expected to grow to 1.24 billion by 2015 with global market revenues for location based services hitting \$12.7 billion by 2014 (Brand Channel, 2012). Stats like these make it very simple for marketers to realise the potential in mobile marketing through a smartphone and the first step will be taken in this study to determine what behavioural attributes influence a consumer's willingness to adopt mobile marketing through a smartphone and develop hypotheses that can be then applied in an Irish context.

3.2 Research Objectives

3.2.1. Objective 1

“To examine what relationship perceived value has on an Irish consumer’s willingness to adopt mobile marketing.”

Perceived value is defined by Zeithaml (1988) as “the consumer’s overall assessment of the benefits of a product based on perceptions about what is received and what is given up”.

In mobile marketing terms, there is a proliferation of marketing tools that have been designed to offer promotional services to the consumer. The perceived value of innovative mobile marketing tools such as location based marketing is that information and promotional offers often target the consumer personally and they receive beneficial coupons and discounts along with product information sent straight to their smartphone using Bluetooth technology whilst they are either in or near that particular store. This improves the shopping efficiency for the consumer and saves them the time they would be normally be researching. There is also the subject of money which gives the consumer the added bonus of spending less money due to the coupon/discount offer that they received upon entering the store..

However, the value and utility of the information of what the consumer is receiving against what they are giving up is a constant challenge for mobile marketers. There is an element of relinquishing their personal privacy by allowing permission to send information through location based marketing and it may impact consumers’ perceptions on this form of marketing communication. Poorly targeted communications and irrelevant information that is sent to consumers will lead them to think that this form of marketing is useless, annoying and valueless. The key

component of value based marketing is that consumers must receive in-context, relevant and useful information in order for them to attached positive emotion towards the form of mobile marketing. Taking into account all presented considerations the following hypothesis is therefore proposed:

H1. Perceived Value is positively related to an Irish consumer's willingness to adopt mobile marketing.

3.2.2. Objective 2

“To examine what relationship trust has on an Irish consumer's willingness to adopt mobile marketing.”

Trust has been shown to be an antecedent of, and behavioural intent towards new technology such as innovative marketing tools associated with mobile marketing (Gefen *et al*, 2003; Pagani, 2007; Bart *et al*, 2005).

In terms of mobile marketing, trust is a key component to its success and that cannot be taken lightly. The marketers are perceived to be the trustee and the consumer the trustor. There is a fine balance to this relationship due to the relatively easy access for marketers to communicate with the consumer through their smartphones. As mentioned in the previous chapter the mobile phone in general is an incredibly personal and private device and if marketers were to over-communicate to the consumer through this channel it could expose a vulnerability and invasion of privacy to the consumer.

Consumers may be more likely to adopt mobile marketing if they are aware and trust the marketer. The potential to influence consumer perceptions and therefore adoption

of mobile marketing lays firmly in the marketers' hands and this is why permission based marketing so strongly aligned with reliability, integrity and hence, trust. Godin (2008) conveys this clearly by stating that "permission marketing is the privilege (and not a right) of delivering anticipated, personal and relevant messages to people who actually want to get them. Kollock (1999) confides that trust is the foundation of the buyer-seller relationship in terms of e-commerce. This should prove no different through mobile commerce where trust is much more difficult to build online than offline.

Generally the consumers' propensity to trust new innovations and marketing communications will determine whether they will try to avoid offers and promotions or embrace them Consumer behaviour and perception toward mobile marketing can be distinguished from the nature of their character and is a reflection of a marketer's reliability and integrity and of their willingness to adopt mobile marketing (Tan & Sutherland, 2004). Therefore, the following hypothesis is proposed:

H2. Trust is positively related to an Irish consumer's willingness to adopt mobile marketing

3.2.3. Objective 3

"To examine what relationship shopping styles has on an Irish consumer's willingness to adopt mobile marketing"

According to Sharma & Sheth (2004), technological progress in the context of marketing information and communications is encouraging the use and development of new shopping methods, leading to rapid growth in non-store shopping as individual no longer has to travel to purchase products and services. M-commerce

has benefited greatly from this with advertising tools such as rich media giving marketers a more robust way at reaching the consumer, impacting their shopping styles and behaviours.

However, the available marketing literature gives adequate empirical evidence that supports the fact that there are many variations of consumer shopping behaviours in both online and offline contexts (Mattson & Dubinsky, 1987; Eroglu *et al*, 2003).

One side of the spectrum determines that a consumer may become disorientated and unresponsive to mobile marketing messages when put in a situation or environment they find uncomfortable thereby affecting their overall purchase intention. Other consumers look for a more personalised shopping experience and seem to know exactly what they want (Megdadi & Nusair, 2011). There is an obvious differentiation between consumer that want personalised goods and those who are happy to shop for standardised products. Customisation comes with the assumption that consumers are designing their own shopping experience and may incorporate mobile marketing tools in order to optimise their shopping experiences. Also customisation of products allow consumers to purchase bespoke products allowing for greater value with a product that more closely meets their needs than a standardised product.

It's evident that there is a strong trend emerging towards customisation this type of shopping style (Andrews *et al*, 2005) although some consumers still are reluctant to adopt the innovative technology that supports this trend as they may lack awareness of the process or be uncertain of its value. Thus, the following hypothesis is therefore proposed:

H3. Shopping styles that are compatible with mobile marketing are positively related to an Irish consumer's willingness to adopt mobile marketing.

3.2.4 Objective 4

“To examine what key demographics correspond with a consumer's willingness to adopt mobile marketing”

The review of mobile marketing literature has acknowledged that the key demographic variables of age, gender and education have been a constant in research studies. Grant & O'Donohoe (2007) and Gao, Sultan & Rohm (2010) state that younger and more educated consumers are more likely to have a higher proficiency in internet navigation/usage and are more likely to adopt innovative technologies.

As mentioned previously in this research paper, the characteristics of generation X and Y consumers should have an impact on their willingness to adopt mobile marketing with an evident difference in philosophies, mannerisms and attitudes towards marketing between the cohorts. In terms of gender, the literature provides little evidence to suggest that there is a substantial difference between male and female with acceptance of innovative technologies and any internet based behaviours (Megdadi & Nusair, 2011; Persaud & Azhar, 2012). Thus, the following hypotheses are proposed:

H4. A higher educated consumer is more likely to adopt mobile marketing

H5. Younger Irish consumers are more likely to be willing to adopt mobile marketing

H6. Gender will have no effect on an Irish consumer's willingness to adopt mobile marketing

3.3 Research Philosophy

This research study is being undertaken with the research philosophy of positivism.

This will allow for the researcher to take the philosophical stance of a 'natural scientist' (Saunders, Lewis & Thornhill, 2012). Since this study will involve a quantitative method of research, the researcher will collect data around the topic of adoption of mobile marketing and will search for variances and relationships between the key dependent variables in the data and will law like, create generalisations (Gill & Johnson, 2010).

The hypotheses for this study have been compiled from previous observations and experiences that are evident around the current literature in mobile marketing. Hirschheim (1985) confides that positivism has had a rich historical tradition in society and that knowledge claims that are not embedded in positivism are considered ascientific and invalid. This study will be an empirical study so it will be based on the experiences and observations of the chosen sample group. The meta-physical or interpretivists contend that realists can only be understood through subjective interpretation which may be more suited to a grounded theoretical qualitative study. Therefore, a positivistic philosophical approach will be adopted as this study depends on a logical outcome (Friedman, 1999)

3.4. Research Strategy

Through identifying the research objectives and the proposal of hypotheses, a survey method was deemed to be the most appropriated research strategy due to the need of gathering large amounts of quantitative data. Since this study will be approached using deductive reasoning, a survey strategy will deliver the results that can be used for descriptive research. Surveys are orderly, structured tools that allow for the collection of standardised data from a sizeable population in a highly economical way, allowing easy comparison (Saunders *et al*, 2012). As executed by Persaud & Azhar (2012), Bauer *et al* (2005) and Roach (2007), the survey method will allow the researcher to examine the different variables that contribute to an Irish consumer's willingness to adopt mobile marketing through analysis of relationships and perception. This will be conducted using the SPSS analysis tool.

An empirical research design will be applied to the survey structure in order to be able to test the hypotheses that were formulated as a result of the overall research objectives. An empirical research method is a form of research analysis in which empirical observations or data are collected in order to answer particular research questions (Moody, 2002). The empirical survey design is particular useful for this study as consumer acceptance and adoption of mobile marketing is an area that has been broadly researched and there are numerous theories regarding the factors that contribute to adoption and acceptance of mobile marketing. This study will aim to adopt the theoretical model as outlined by Persaud & Azhar (2012) as this model incorporates smartphone adoption and innovations whereas previous literature is firmly based on classic/feature phones and SMS marketing (Bauer *et al*, 2005; Tsang *et al*, 2004).

The quantitative survey tool as adopted for this study from Persaud & Azhar (2012) addresses the key variables that have been evident in the literature. They are Perceived Value, Shopping Style, Trust, Age, Education and Gender. The survey encompassed the key variables through 35 different questions aimed at testing the same concepts to ensure the tests reliability and validity. Due to the time constraint in this study a cross-sectional timeframe will be adopted for the study. A cross-sectional study will allow for data to be collected by the survey tool that focuses on a population of interest at one point in time (Hall, 2010). These ‘snapshot’s’ of a particular period of time is most suited for this study as it is looking to identify the factors that contribute to Irish consumers adoption of mobile marketing at this point in time.

3.5. Research Approach

A deductive, quantitative research approach has been adopted for this study as there is a direct link to the positivism paradigm by establishing a set of hypotheses based on an existing theory (Gill & Johnson, 2010). Wilson (2010) defines a deductive approach as “being concerned with developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis”.

Blaikie (2010) has outlined six steps which outlines the ‘top down’ approach for which deductive reasoning is known as. They are:

1. Propose a tentative idea, a premise, a hypothesis or set of hypotheses to form a theory.

2. Use existing literature, or by specifying the conditions under which the theory is expected to provide results. Also deduce suitable propositions that can be measured.
3. Examine the premises and the logic of the argument and determine if the argument compares to existing theories to see if it offers and further understanding.
4. Collect appropriate data to measure the variables and analyse it
5. If the results are not supporting the proposed hypotheses, the theory is either false and must be rejected or modified and the process restarted.

A deductive research approach was undertaken instead of an inductive approach due to the premise that the key theories of the consumer's willingness to adopt mobile marketing have been recognised (Ali & Birley, 1998; Kovacs & Spens, 2005) and a set of hypotheses will deduct whether these theories will be supported within a representative Irish sample size. An inductive approach is a systematic procedure for analysing qualitative data where analysis is guided by specific objectives (Thomas, 2003). The inductive approach generally starts out with a list of observations which eventually leads to a theory. Since this is a quantitative study, deductive reasoning fits better with its overall design as there is a set theory outlined by previous academics and this study will adopt hypotheses to see if this theory applies in an Irish context.

In order to investigate this topic area further a research question with accompanying objectives were developed from the existing mobile marketing academic literature and industry developments. Hypotheses were proposed from the objectives to reflect predictions and assumptions that the researcher has made. A preliminary questionnaire was drafted and piloted with 16 individuals. They were asked to fill in

the survey and identify any issues that they may have had with the structure to ensure its validity and reliability. The final questionnaire would be sent out to 173 Irish individuals who were attained from the researcher's personal and private networks. The collected data would then be analysed using SPSS to determine if the set out objectives and hypotheses were met. Firstly it is imperative that a discussion of the research objectives is made to propose appropriate hypotheses that will reflect the consumer adoption of mobile marketing in an Irish context.

3.6. Questionnaire

The questionnaire structure (Appendix 1) as mentioned previously consisted of 35 questions aimed at measuring the key behavioural variables that factor in a consumer's willingness to adopt mobile marketing through a smartphone. The Likert scale is a non-comparative, itemised scaling technique that was used for the majority of questions in this study. Malhotra (2007) illustrated that Likert scales are competent in the measurement of customer attitudes and their benefits and are that they are easy to construct, administer and understand. Since a large proportion of this study is based on determining behavioural attitudes, the Likert scale questions will help aid the study in its objectives. A five point Likert scale has been adopted for this study ranging from strongly disagree to strongly agree. The respondents were asked to rate a statement on how favourable or unfavourable they deem necessary to reflect their attitude. For example;

Statement: *"I see a benefit in receiving marketing messages and promotions"*

Strongly Disagree (1) Disagree (2) Neutral (3) Agree (4) Strongly Agree (5)

There Likert scale questions were designed to cover the aspects of mobile marketing that this paper has covered so far. Innovative technology adoption (Location based marketing and Bluetooth), permission marketing and perception/attitudes towards mobile marketing were all addressed through this style of question to determine key factors that influence the Irish consumer. Dichotomous questions were asked where no nominal values were given to the possible answers as they are primarily used for categorical purposes i.e. Gender: Male = 1, Female = 2.

The actual questions used in the questionnaire were separated into 4 parts. The first section had questions on mobile phone usage which were used to measure a pattern in the respondents' usage. The questions included asking about the type of smartphone that the participant uses, the frequency in which they change their mobile phone and the main features of a phone that they use. The second section is based on the Likert style questions as mentioned before and is designed to measure consumer's behavioural attitudes and perceptions towards mobile marketing. These questions address a consumer's familiarity with mobile marketing, their current exposure to mobile marketing, their compatibility with mobile marketing and their perceived benefits and risks to adopting mobile marketing. The third section is about the impact that regulation has on their attitudes and perceptions of mobile marketing. Regulation has a high association with trust and privacy. Lastly, the fourth section asks consumers to provide key basic demographic information such as age, employment status and education.

3.7 Primary Data Collection

Survey respondents for this study were recruited using a combination of judgemental sampling and snowball sampling. This means that the researcher made a judgement on who should participate in the study and combined this with asking relevant groups to further distribute the survey to individuals who have a similar profile to themselves (Malhotra, 2007).

A non-probability sampling was adopted for this study as the researcher gets to choose who should participate in the study rather than relying on an external environment (Malhotra, 2007). The respondents profile was targeted towards Generation X and Y consumers as the researcher felt from a review of the literature in this paper that they would be more receptive towards mobile marketing therefore providing more insightful findings. There was however no age restriction as the study wanted to analyse the differences in behavioural attributes of Irish consumers within different generations. The primary stipulations of the study were that the respondents had to be an Irish citizen and reside in the country to reflect a true cultural perception.

A total of 16 respondents were used for the pilot study to identify any wording issues, vagueness in the questions or grammatical errors that affected the appearance of the survey. The survey design consisted of 35 questions and was administrated through a web survey that was hosted on www.surveymonkey.com. The significant difference between this study's survey tool and that of Persaud & Azhar (2012) are were the grammatical changes that were needed to reflect the Irish sample population. The Persaud & Azhar (2012) study was conducted in a Canadian context so the North American English dialect used would have hampered the reliability of

this survey when conducted in an Irish sample. These changes were made on recommendation of the pilot survey respondents.

The final questionnaire was sent out to 179 recipients by email invitation and returned with 116 respondents. The respondent rate for the survey was 65%. Sheehan (2001) states that anywhere above 60% is considered a good response to an email survey. The recipients were informed of the purpose of the study and what was required of them before completion. A data protection statement was provided outlining that all data was anonymous, secure and would not be shared with any other party. The survey was active for 6 days then data collection tool was closed.

4. Analysis and Findings

4.1. Data Analysis Technique

SPSS is to be used for the analysis of all empirical data from this study. An excel file was downloaded from the web survey tool www.surveymonkey.com and refined in the excel program so as to assign numerical values for each question. The refined excel document was then opened in SPSS to perform the necessary tests. The predominate tests that will be used are a Kruskal Wallis test and Mann Whitney U test that are designed to see if there is any substantial difference between groups on selected variables. A Kruskal Wallis test and a Mann Whitney test are used for non-parametric (ranking/ordering) data for which this study's data consists of. A series of Spearman Rho Rank Correlation tests will be carried out to investigate the relationships between the set dependent and independent variables (Sykes, 1993).

4.2. Validity and Reliability

“Validity refers to the accuracy or truthfulness of a measurement. Are we measuring what we think we are? This is a simple concept, but in reality, it is extremely difficult to determine if a measure is valid. Generally, validity is based solely on the judgment of the researcher. When an instrument is developed, each question is scrutinized and modified until the researcher is satisfied that it is an accurate measure of the desired construct, and that there is adequate coverage of each area to be investigated” (Walonick, 1997).

The external validity of this study is proved as the survey tool was pre-validated from a previous study by Persaud & Azhar (2012) and then applied to an Irish

sample. The internal validity of this study is evident from the findings in the paper by Persaud & Azhar (2012) where their overall objectives were met and their hypotheses proved in a Canadian context. The internal validity of this test has proven adequate as the survey tool and questions asked have addressed each of the researcher's objectives for this study.

An internal consistency test using the Cronbach's Alpha test was run to assess the reliability of this study using SPSS analytics software. The pilot study that was sent out to 16 recipients yielded Cronbach's Alpha results of (.816) for part 1, (.877) for part 2 and (.831). Since the reliability rate can only reach 1.0 on Cronbach's Alpha scale, the results presented prove that the survey design is highly reliable. The study by Persaud & Azhar (2012) provided Cronbach's Alpha results of 0.92 and 0.64 for their key constructs that they used. The second result was validated through Hulland (1999) in their study.

Normally a replicated survey model does not need to be retested for reliability by the researcher due to the assumption that it has passed in previous studies (Sproull, 2004). However, some of the language in the questions was changed to reflect the Irish market so the researcher deemed a test necessary.

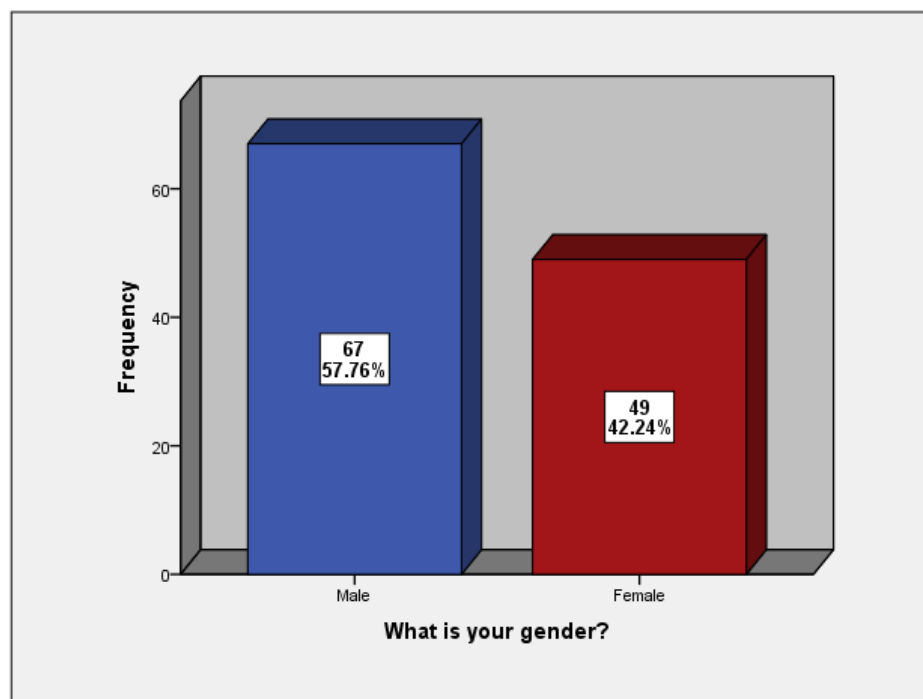
4.3. Descriptive Statistics

The descriptive statistics aim to examine the key demographic groups of the study first followed by the mobile phone usage of the respondents. Lastly, the statements addressing the perceptions and attitudes of mobile marketing will be analysed with conclusions and recommendations to follow further in the paper. As mentioned in the research paper that the survey instrument has been pre-validated as it was used before in a research study by Persaud and Azhar (2012).

4.3.1 Key Demographics

4.3.1.1. Question 1 – Gender

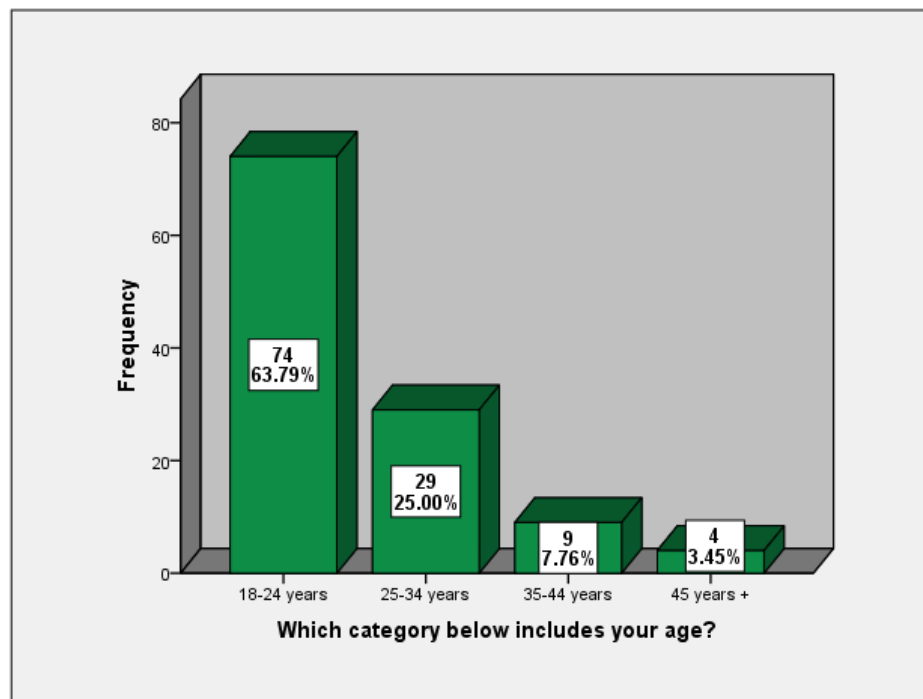
Figure I. Response Summary Question 1



As mentioned previously, the first part of the survey covers an analysis of the key demographics. The first question is a depiction of the gender make-up of the respondents who completed the survey. From the total of 116 respondents, 57.8% were male and 42.2% were female (See Figure I above). There was a relatively even split in terms of the gender split which should give the study validity in terms of defining whether there is a relationship between gender and mobile marketing adoption..

4.3.1.2 Question 2 – Age

Figure II. Response Summary Question 2

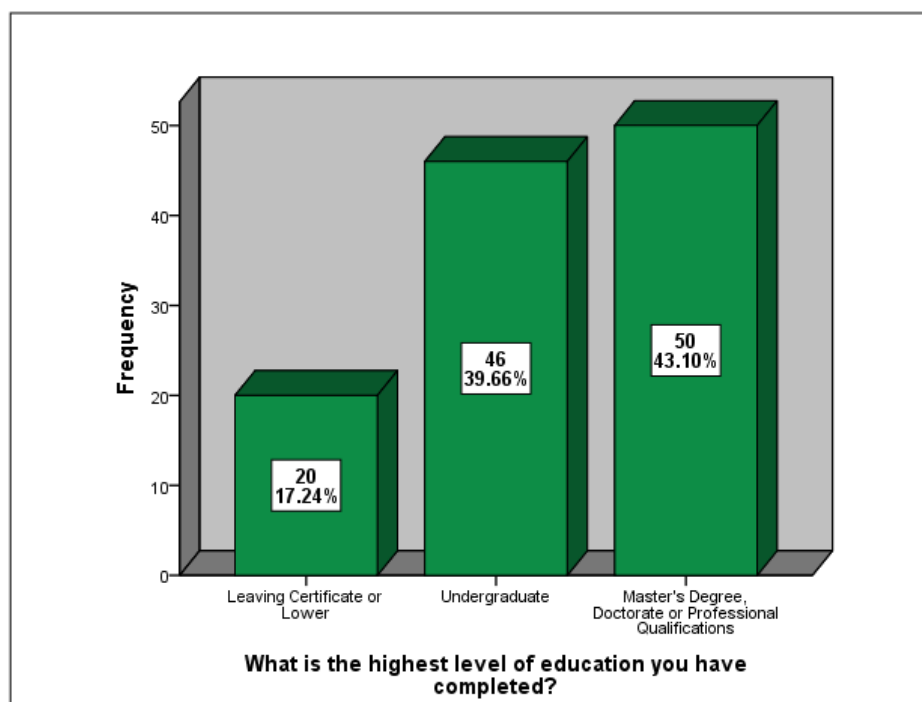


Question 2 represents the breakdown of the different age groups that participated in this study. The predominant age group was the 18 – 24 age group which was 63.79%

of the total survey respondents. The other groups included ages 25 – 34 at 25.00%, ages 35 – 44 at 7.76% and age 45 years plus at 3.45% of the sample population (See Figure II above). The 18 – 25 age group is a significant figure as it places the age group in the late period of the Generation Y cohort. This cohort which has characteristics such as tech-savviness and high communication levels could lead to the assumption that this particular sample may prove positive towards mobile marketing adoption (Y&R, 2011). As evident from the Figure II, the sample is skewed towards the 18-24 age group which is to be expected considering the sampling approach.

4.3.1.3. Question 3 – Education

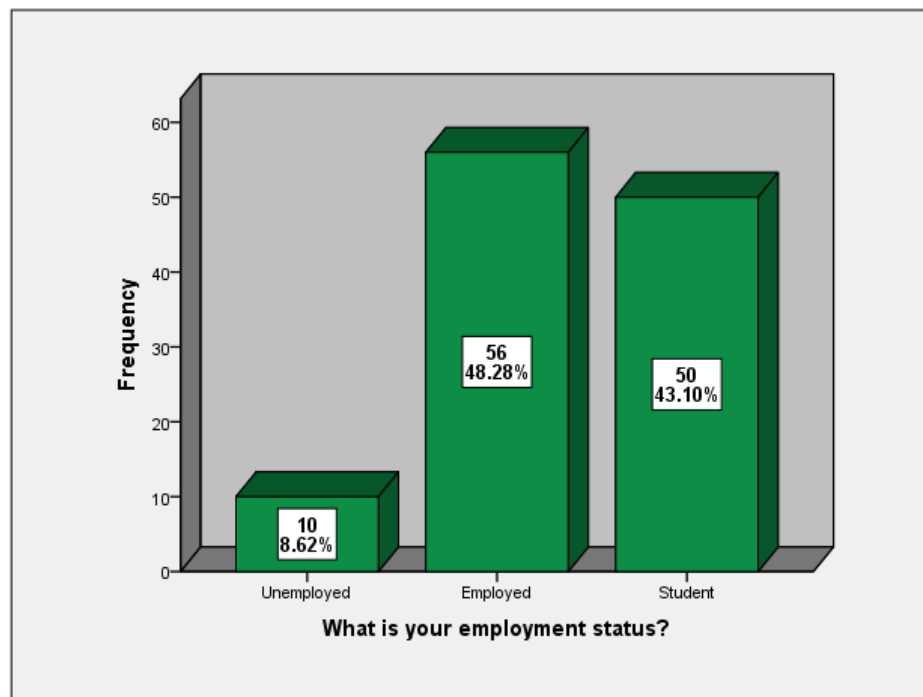
Figure III. Response Summary Question 3



The education percentage breakdown in question 3 suggests that this study is also skewed towards educated respondents. Again this can be expected with the sampling technique adopted. There is a 39.7% share of the overall respondents who have an undergraduate degree while 43.1% have a master's degree, doctorate or professional qualification (See Figure III above). Persaud & Azhar (2012) primarily focused their study on university students where they had a split of 90% who have an undergraduate degree and 10% who have a master's, doctorate or professional qualification. There is a proportion of the chosen sample who have a lower educated background so this could possibly help investigate the hypothesis that 'more educated consumers are more likely to contribute to a consumers willingness to adopt mobile marketing' as there is an education group to compare against.

4.3.1.4 Question 4 – Occupation

Figure IV. Response Summary Question 4

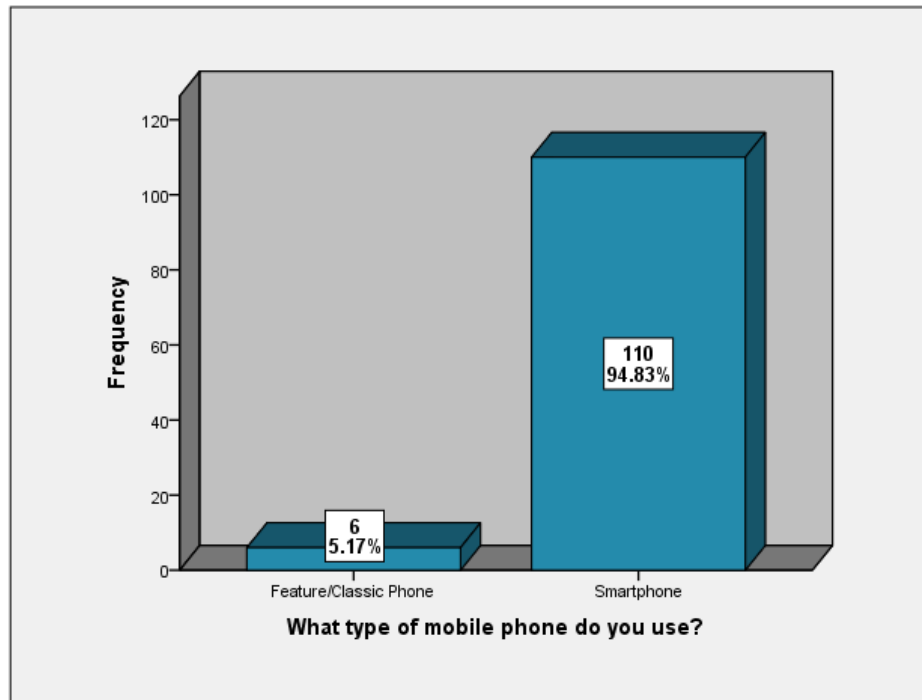


Question 4 consisted of asking the respondents for their employment status and as it can be seen above in Figure IV that the largest percentage of the sample are employed. The employed group consists of 48.28% of the overall study. The student group is close behind at 43.10%. The unemployed group is 8.62%. These figures suggest that the small majority of the sample population have a steady income with various degrees of disposable income. The students were not asked if they had a part time job and this could contribute to income levels within that group. Adoption of technological innovations such as smartphones can be expensive and disposable income plays a pivotal role in acceptance of mobile marketing as marketers want to target responsive consumers.

4.3.2. Mobile Phone Usage

4.3.2.1. Question 5 – Phone Type

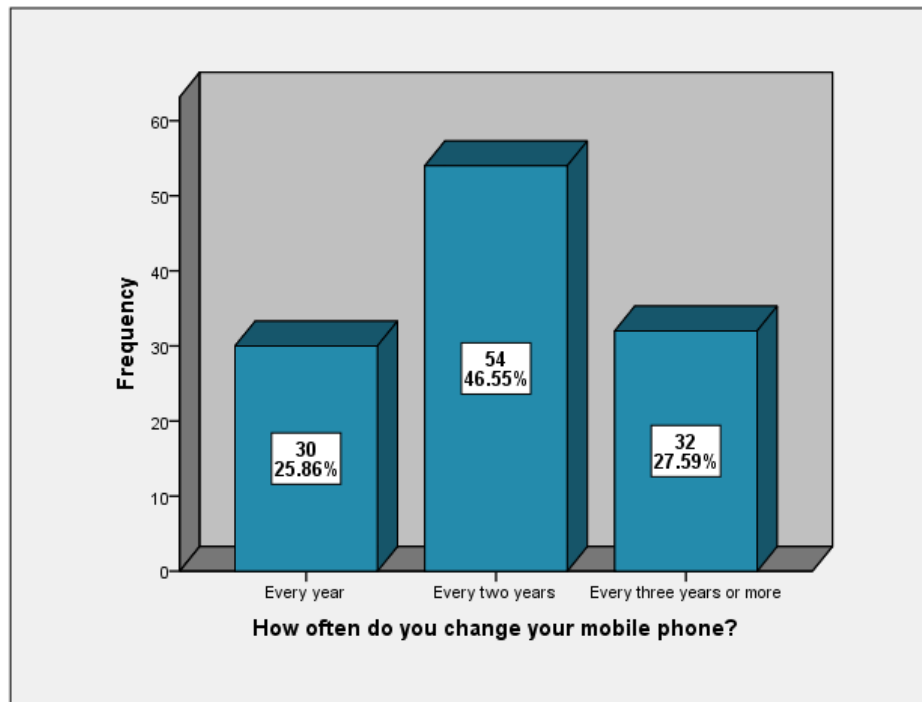
Figure V. Response Summary Question 5



Question 5 addressed what type of phone the respondent owned. There was an overwhelming sway towards smartphone ownership with 94.83% of respondents claiming to own a smartphone whereas only 5.17% claim to own a class/feature phone (See Figure V above). This smartphone ownership figure is much higher than the Irish smartphone penetration figure which is currently at 57% (Our Mobile Planet, 2013). The high smartphone penetration figure can be expected as a large proportion of the respondents are educated, employed and a member of the Generation Y cohort.

4.3.2.2. Question 6 – Frequency of Mobile Change

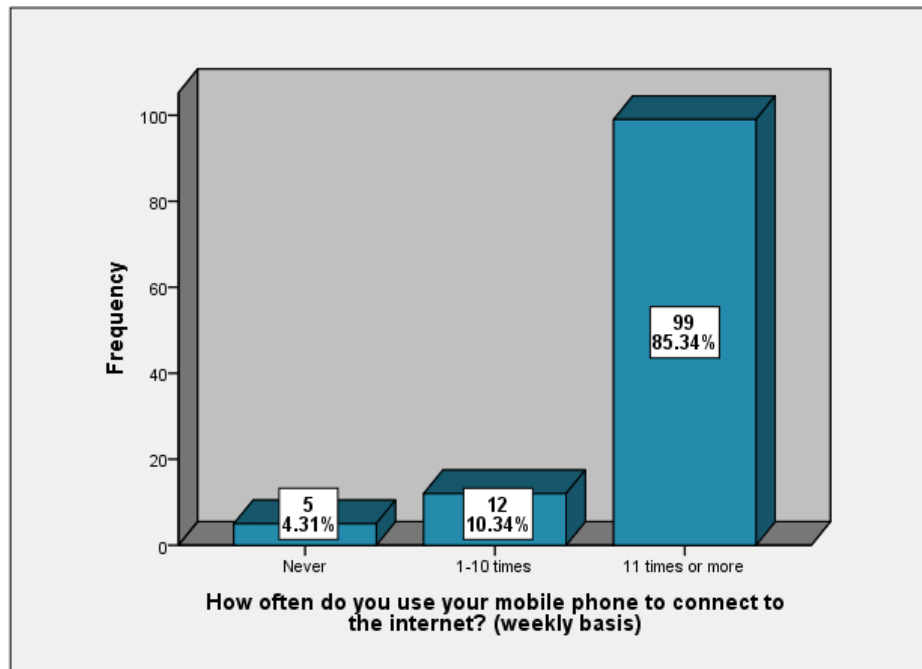
Figure VI. Response Summary Question 6



This question was introduced to determine how often the respondents changed their mobile phone. Interestingly, there was a frequency of the sample population who change their phones every year with 30 out of the 116 respondents proclaiming to do so (See Figure VI above). Their overall percentage of the sample was 25.86%. The most common answer was that the respondents changed their mobile phone every two years which had 46.55% of the overall. This would be influenced by contractual agreements that respondents have with their mobile telecommunications provider. Meteor (2013) for example, state on their website that the most common contract time period is 24 months. The least common selection was three years and more which suggests that the selected sample are quite tech-savvy and enjoy new innovative smartphones and change quite often to the newest model.

4.3.2.3. Question 7 – Connect to the Internet

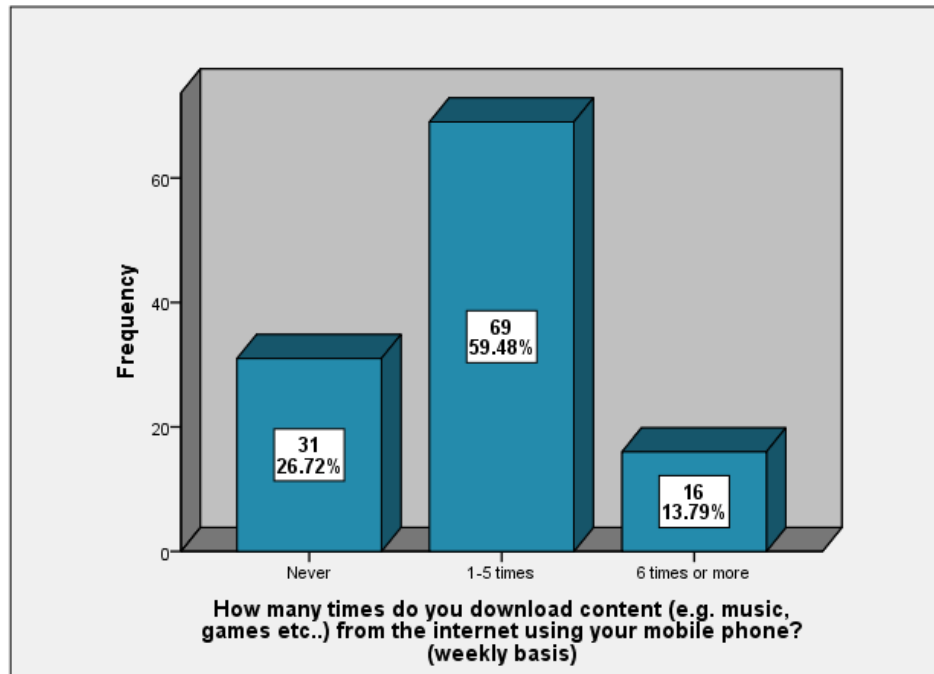
Figure VII. Response Summary Question 7



Question 7 aimed to determine what the consumer's internet usage was on a weekly basis. The chosen sample as mentioned before are quite tech savvy (Kotler & Keller, 2011) and have an engaging relationship with their mobile phones. It can be seen that 85.34% of the overall sample connect to the internet over 11 times or more a week whereas 10.34% connect 1 -10 times and 4.31% never connect to the internet through their phone (See Figure VII above). These results would suggest that the majority of respondents are aware of mobile marketing through their high usage of the internet on the mobile phones.

4.3.2.4. Question 8 – Download Content from the Internet

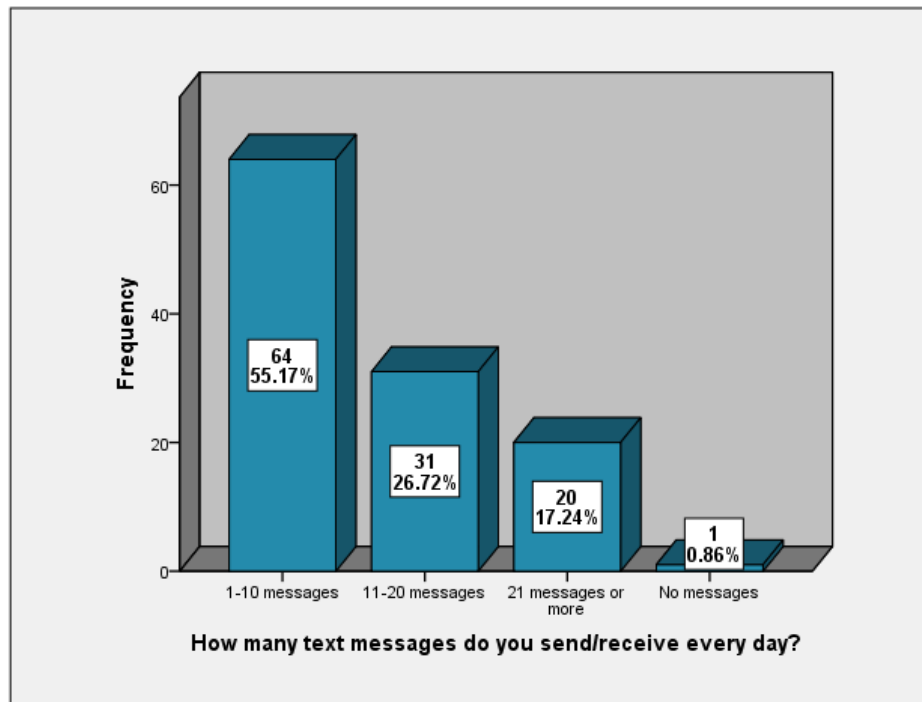
Figure VII. Response Summary Question 8



Question 8 investigates how many times the respondents download content from the internet using their mobile device. Within the design of this question, a guide to what was defined as a ‘download’ was supplied. 59.48% of the respondents answered that they download content on average 1 – 5 times a week. Quite a substantial proportion of the sample at 26.72% selected that they never download content from the internet. The other group answered that they download content from the internet over 6 times a week. These results suggest that although there is considerable internet usage among the respondents through their mobile phone (Q.7), they are not entirely using their phones for downloading content.

4.3.2.5. Question 9 – Text Messages Sent/Received Daily

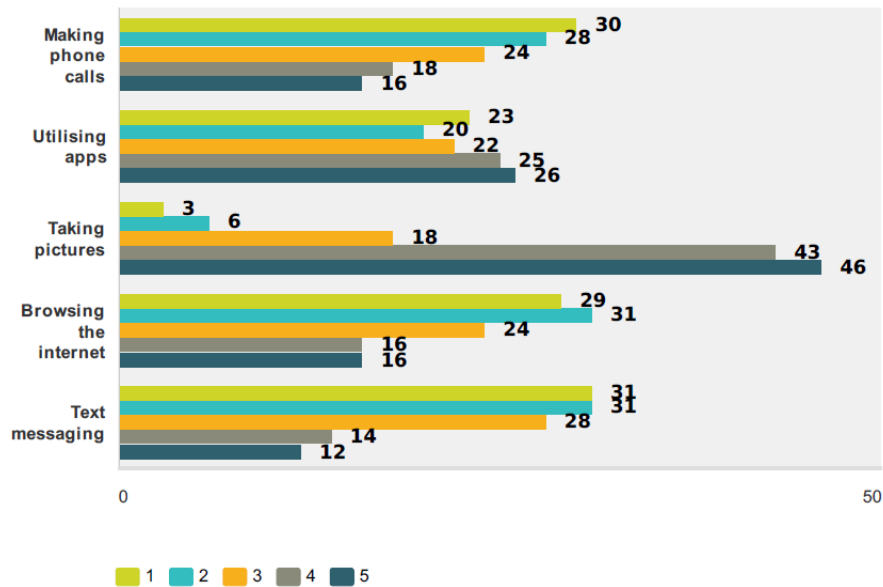
Figure IX. Response Summary Question 9



Question 9 addresses how many text messages the respondents both send and receive on a daily basis. The results show that 1 -10 messages has a substantial share of the sample with 55.17%. There was 26.72% of the sample who sent 11-20 messages a day and 17.24% who sent 21 messages or more. There was only 1 from the 116 respondents who sent no text messages. These results suggest that respondents don't send text messages in an abundance and use their phones in other ways as a communication tool. Another logical explanation for the sample only sending 1 – 10 messages a day is that 91.38% of the sample are employed and students combined (Q.4) therefore they may not have an opportunity to text during the day as they are in work or in class.

4.3.2.6. Question 10 – Top Functions Used Most Frequently on a Mobile Phone

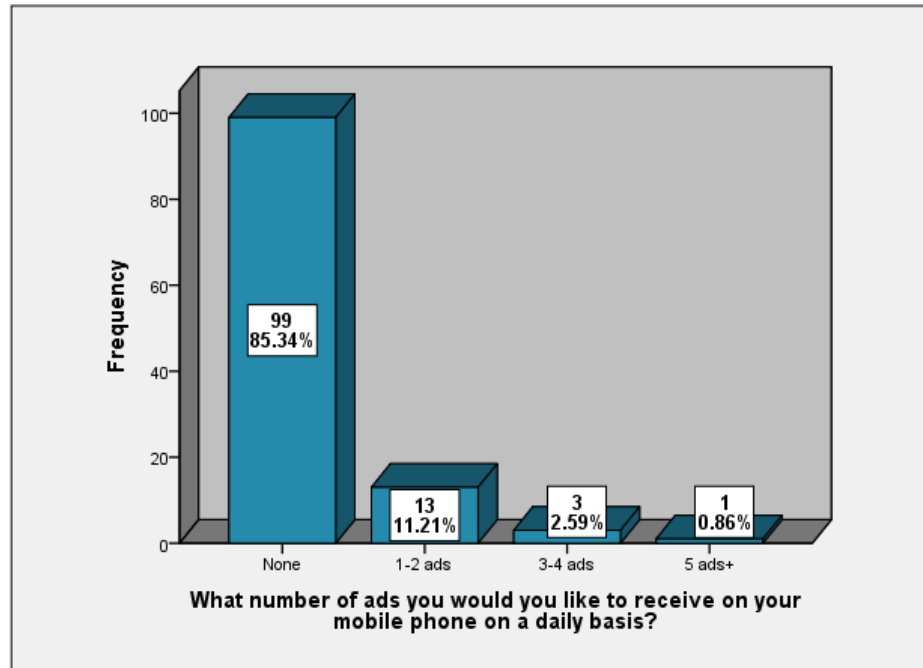
Figure X .Response Summary Question 10



Question 10 was designed to ascertain what functions of a mobile phone the participants used most frequently. The questions were based on a ranking system where 1 being the most used function and 5 being the least used function. As it can be seen from the chart above the most common function used on a phone is text messaging with a frequency of 31 for rank 1 and a frequency of 31 for rank 2. It is curious that browsing the internet actually has a higher frequency on rank 2 than phone calls and this bodes well for potential reach for marketers. Taking pictures has an overwhelmingly lower rank as it takes up the two bottom categories with a frequency of 43 for rank 4 and 46 for rank 5.

4.3.2.7. Question 11 – Ads Received on a Daily Basis

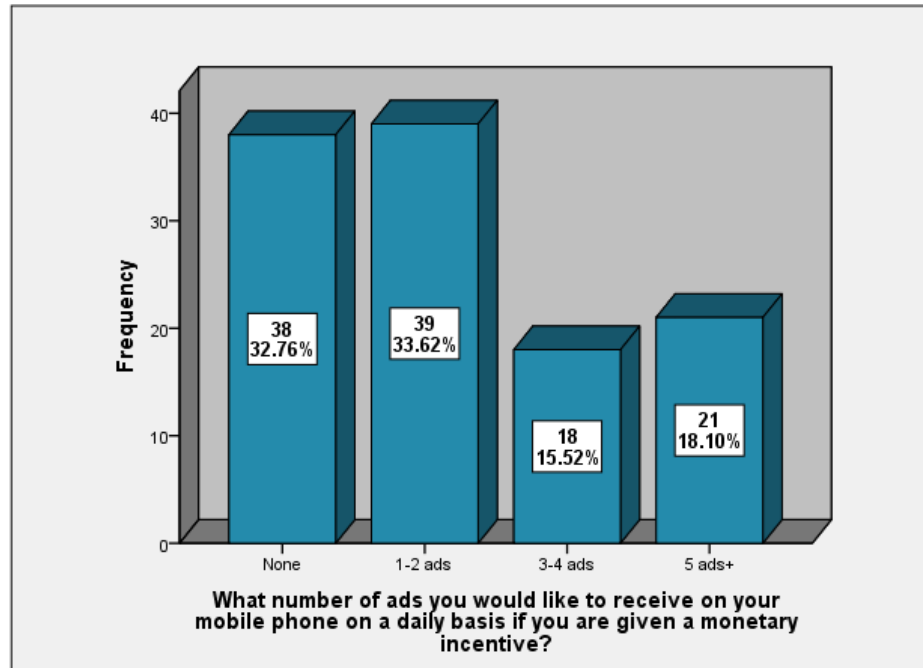
Figure XI. Response Summary Question 11



Question 11 looks at how many ads the respondents would like to receive on their mobile phones on a daily basis. There is an overwhelming negative response to this question with 85.34% of respondents wishing to receive no advertising messages at all on a day to day basis. A total of 17 respondents have stated that they would receive advertising messages. The next question should help to provide a deeper insight into consumer adoption of advertising messages as it addresses advertising with monetary incentives.

4.3.2.8. Question 12 – Ads Received with an Incentive on a Daily Basis

Figure XII. Response Summary Question 12



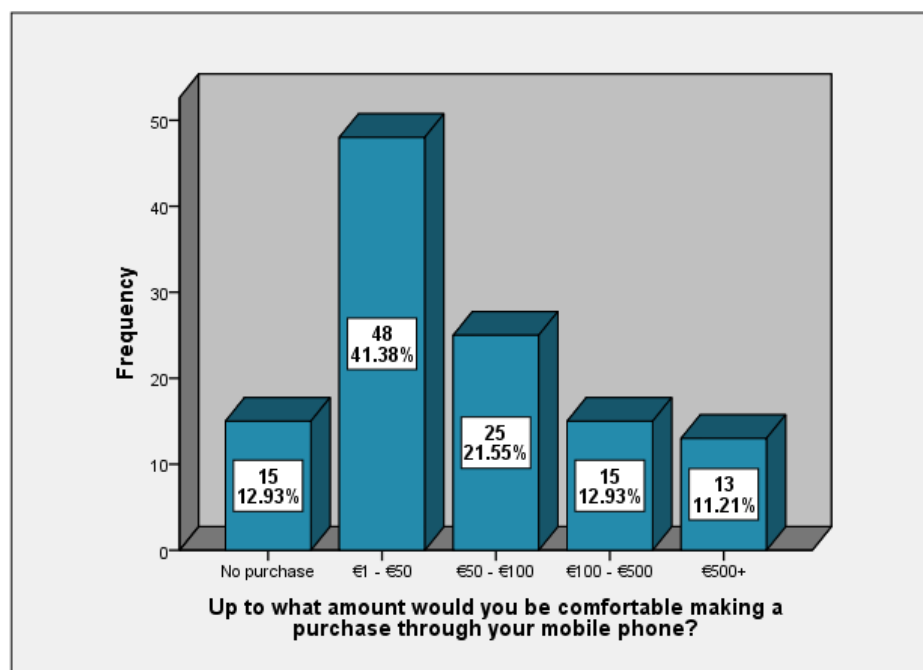
Question 12 aims to assess whether consumers may be more open to advertising messages through a mobile device if they are offered a monetary incentive. Judging by the results, there is a substantial difference between the previous questions results and this one. The previous question had 99 respondents choose the answer ‘none’ when asked how many ads they would like to receive. This figure has dropped to 38 respondents still choosing to receive no advertising messages on a daily basis on their mobile phone. However, this means that the rest of the respondents who were swayed from ‘none’, reacted positively when suggested that they will be rewarded for receiving ads.

The most striking result is that of the ‘5+ advertising messages’ answer where 21 individuals now are happy to receive 5+ advertising messages on their mobile phone a day as opposed to 1 respondent in the previous question who chose to receive

advertising on a daily basis that carries no incentive. 33.63% and 15.52% of respondents would accept 1-2 and 3-4 marketing messages daily with an incentive respectively which contributes to near 50% of the overall sample (See Figure XII above). The previous question resulted in just under 15% of respondents selecting 1-2 and 3-4 ads. It is evident based on these findings that through monetary incentivises, advertising on a mobile phone has potential to be accepted by a majority of Irish consumers.

4.3.2.9. Question 13 – Purchases on a Mobile Phone

Figure XIII. Response Summary Question 13



Question 13 aims to investigate the respondents' willingness to adopt mobile commerce. The question is phrased in a way that helps determine if there is trust in mobile commerce sites such as Amazon and eBay. The respondents were asked up to what amount they would be comfortable spending on purchases through their mobile

phone. There was a response of 41.38% who stated that they would be comfortable spending from €1 - €50 (See Figure XIII above). This result can be interpreted that this group are willing to spend money online through their mobile phones but they are cautious of the amount that they spend. 21.55% of respondents are content to spend between €50 - €100 and 12.93% of respondents are willing to spend between €100 - €500. Only a small proportion of the sample population (11.21%) are willing to spend €500 + which suggests that they do not have any issues with online mobile payment systems and spending money online in general.

4.3.3. Attitudes and Perceptions of Mobile Marketing

This section consists of 22 statements that are designed to determine the overall attitudes and perceptions of mobile marketing within the chosen sample. They represent the key behavioural attributes that motivate a consumer to adopt mobile marketing and they are perceived value, shopping styles, permission/trust, and regulation. There are also two factors that have been included to measure intention to participate in mobile marketing and intention to participate in location based marketing. The questions are all ranked on a five-point Likert scale from 1 strongly disagree and to 5 strongly agree. The data is considered to be of an ranked and ordinal nature therefore, the ranked mean was calculated for the entire sample and for just smartphone users based on the variables presented in the below table (Table 1). The standard deviations were not included due to no definitive value being available. The two sets of score were calculated to assess if there was a difference in the ranked means considering smartphone users are more likely to adopt mobile marketing communications due to the access that they have to them. Since the

smartphone users contribute to 94.83% of the overall sample, there was no distinct difference between both sets of scores which can be expected. However, the researcher felt that these results were necessary to report due to the adoption of mobile marketing being the focal aspect of the study Inspection of all data in Table 1 identified the variables that indicated a trend towards either a disagreeable ranked mean score or an agreeable ranked mean score.

Table 1. Ranked Means of Variables (n=116)

Question	Variable	Measure	Entire sample (n=116)	Smart-phone Users (n=110)
			Ranked Mean	Ranked Mean
Q14	Exposure to marketing messages	Receive Ads on mobile phone	2.84	2.89
Q15		See a benefit in marketing messages	2.78	2.78
Q16		Like to receive ad via text message and others	1.99	1.99
Q17		Respond to ads if appropriated to needs	3.03	3.03
Q18	Intention to Participate in Mobile Marketing	Would participate in survey	2.24	2.23
Q19		Would respond to coupon	2.94	2.95
Q20		Would respond to web offer	2.59	2.60
Q21	Perceived Value	Marketing messages help make better shopping decisions	2.25	2.25
Q22		Marketing messages helps reduce time searching	2.41	2.40
Q23		Marketing messages helps improve shopping efficiency	2.41	2.38
Q24		Marketing messages received saves me money	2.27	2.24
Q25	Shopping Styles (Attitudes)	Marketing messages received is a waste of time	3.44	3.46
Q26		Marketing messages received annoys me	3.86	3.88
Q27		Marketing messages received would increase my phone costs	2.49	2.46
Q28		Mobile marketing does not fit with my lifestyle	3.29	3.29
Q29		Mobile marketing does not fit my idea of shopping	3.57	3.56
Q30	Trust	I would feel more comfortable if my permission was obtained before receiving marketing offers	4.27	4.26
Q31		I would feel more comfortable if I know the marketer	3.88	3.91
Q32	Intention to participate in Location Based Marketing	I would like to download content via Bluetooth	2.79	2.80
Q33		I would like to be included in location-based marketing	3.12	3.12
Q34	Control	Government regulation of mobile marketing is a concern to me	3.12	3.12
Q35		Regulation is necessary for a healthy mobile marketing environment	3.99	3.99

The first two questions aimed to ascertain if the participants received marketing messages often and if they see a beneficial use in receiving marketing messages through their mobile. The scores presented in Table 1 suggest that they are mainly neutral on both questions which suggest that they are not being subjected to over-

exposure of marketing messages but they are unsure of how beneficial they can be. Questions 16 -20 look to investigate a consumer's intention to participate in mobile marketing and whether the respondents are open to accepting. These questions essentially help form the backbone of the survey design as they will be used in more rigorous testing in the inferential statistics section.

The stand out question in the 'intention to participate in mobile marketing' section of the survey was Q16 (Ranked Mean = 1.99) which stated that they would like to receive marketing message on their mobile phone. There was a tendency towards the disagreeable end of the scale which insinuates that the respondents are not entirely open to receiving marketing messages. This data tells us that Irish consumers can be vary of accepting marketing message due to a logical fear of too many irrelevant messages getting through to their personal mobile phone.

The statements that consist in questions 21 -24 have mostly came back with neutral scores in regards to the consumers 'perceived value' of mobile marketing. This would appear that the Irish consumer feels indifferent about what they are looking to achieve with mobile marketing. However, the next five questions (Q25 –Q29) which look at 'shopping styles' relate to the negative attitudes and perceptions that there may be about mobile marketing. There appears to be a considerable sway in the results towards agreeing with these negative statements. Each result is greater than a mean of 3.00 which can be perceived that Irish consumers are hesitant to fully embrace mobile marketing at present.

The next set of questions look at trust and permission. Questions 30 and 31 were designed to test the respondents' opinion of how important seeking permission is to them in regards to mobile marketing. The results show a sizeable trend toward the

agreeable end of the scale. Question 30 which involves the seeking of permission from the marketer before a promotional message is sent resulted of a noticeable trend towards the 'Strongly Agree' side of the scale with a ranked mean score of 4.27.

Question 31 aimed to assess if the consumer knew the marketer they would feel more comfortable accepting mobile marketing. This question also resulted in considerable score (Ranked Mean = 3.88).

Questions 32 and 33 look to determine the respondents' intention to accept innovative mobile marketing tools such as location – based marketing including Bluetooth technology. The two questions in this section relate to location- based marketing and communicating marketing/promotional messages with the consumer through Bluetooth technology. Only Question 33 which looked at location-based marketing has a trend towards the agreeable end of the scale (Ranked Mean = 3.12) where Question 32 resulted in a mainly neutral response towards Bluetooth marketing communications.

Lastly, Questions 34 and 35 appeal to the respondent's perception of the role of regulation in mobile marketing and its importance. In both questions the ranked mean is above 3.00 and leaning towards the agreeable end of the scale which suggests that regulation is a factor in an Irish consumer's intention to adopt mobile marketing.

4.4. Inferential Statistics

4.4.1. Methods for Analysis of Variance

In order to ascertain whether or not the key demographics mentioned in this study influence the consumers' willingness to adopt mobile marketing, Mann Whitney U Tests were conducted on those demographic groups with two groups (i.e. Age, Gender and Mobile Ownership) and Kruskal-Wallis test was carried out with any demographic with 3 or more groups (i.e. Education and Occupation). The Kruskal-Wallis Tests is to be used for an unrelated design when different participants are doing three or more conditions whilst analysing ranking ordinal data (Greene & D'Oliviera, 2006). The Mann-Whitney U-Test is similar although is used for two conditions instead of three. The significance value that will be used to test these variables is ($p < .05$). Table 2 contains the significant results of the tests of the key demographics. Appendix 2 contains the tests that were run and includes any significant variables.

The key behavioural demographics will be observed in respect to all questions that were include in the survey tool that were designed to measure the participants perceptions and attitudes towards mobile marketing and it innovative marketing tools. These include the benefits of mobile marketing messages, the possibility of responding to marketing messages, whether mobile marketing has an effect their shopping efficiency, the financial benefits of mobile marketing and whether mobile marketing fits into the shopping styles of the participants. It is important to note that the 'mobile type' demographic was used as a factor in this part of the study but it will be left out of this research paper. The reasoning behind this is that smartphone percentage of the sample was 38% in the Persaud & Azhar (2012) study where in

this sample population, smartphone contributes to 94.83% therefore an accurate depiction of casual/feature phone participants cannot be made. So, the testing sequence of the demographics for this study will be:

1. Age
2. Gender
3. Education; and
4. Occupation

4.4.1.1 Age

Pertaining to this For the purpose of analysing the age demographic, it will be broken down from four group into the two groups below:

1. Under 25 years old; and
2. Over 25 years old

From analysis of the age demographic against the independent variables within the survey instrument, that there are no statistical differences in the ranked means between the different age groups. The only statistically significant variable was that ‘regulation is necessary for a healthy mobile marketing environment’ (See Appendix 2 (I)). This finding is reported below.

A Mann Whitney U-Test found that there was a statistically significant difference between the ages groups ‘25 years old and younger’ and ‘over 25 years old’ in regards to Question 37 ‘Regulation is necessary for a healthy mobile marketing environment’ ($Z = -2.278$, $p = .023$). (Mann Whitney U Tests can be found in Appendix 2 (II, III))

4.4.1.2. Gender

This study proposed a hypothesis that gender would have no impact on an Irish consumer's willingness to adopt mobile marketing. This proposal was adapted from Persaud & Azhar (2012) as through their findings, this was proven. From analysis of the collected data in this study, it is evident that gender actually plays a significant role in an Irish consumer's willingness to adopt mobile marketing through a smartphone. This particular study which as mentioned before is conducted with an Irish sample and the results from the Mann Whitney U-Test identified 13 variables that differentiate male and female attitudes and perceptions towards mobile marketing. The significant variables and their scores can be seen in Appendix 2 (I).

From the results for the Mann Whitney U Test it would appear that there is a significant difference in the perceptions and attitudes of the Irish female consumer than that of the Irish male. The results have shown that women generally have higher ranked means than the male population which implies that the female population in Ireland is more receptive to mobile marketing than Irish males (See Appendix 2 (I) for full results).

4.4.1.3. Occupation

With respect to occupation, a Kruskal Wallis Test showed that there was no significant difference between the three groups as a whole but when the 'define groups' option was altered in SPSS to measure each group against each other, there was a significant difference in between the groups 'employed' and 'student'. The significant variables included were questions 34 and 35 which both deal with the

construct of regulation. Q34 results were ($H(1) = 4.547, p = .033$) and Q35 was ($H(1) = 3.901, p = .048$)

4.4.1.4. Education

In regards to the participants education, there was only one variable that proven to have a significant difference from their groups within. Question 28 which was designed to assess participant perception of mobile marketing through the variable 'mobile marketing does not fit my lifestyle'. The results for the Question 25 was ($H(2) 6.013, p = .049$).

Upon further analysis of the question it can be seen that the highest ranked mean belonged to that of the 'Leaving certificate and below' group which can be interpreted that a those with a lower education are less likely to adopt mobile marketing as they do not feel as if it fits into their lifestyle.

4.4.2. Factor and Spearman's Rho Ranks Correlation analysis

4.4.2.1. Factor Analysis

A factor analysis was carried out in order to fully understand which variables the sample population perceived as important and the aim is to group them together as one singular variable that represents that particular construct (Kootstra, 2004). The factor analysis will result in factors loading scores which helps determine which variable should be paired together. It is also known as a data reduction technique (Koostra, 2004). These variables will generally be closely related to one another and will prove reliable through an internal consistency test. i.e Cronbachs Alpha

(Costello, 2005). This overarching variable will contribute to a consumer's willingness to accept mobile marketing later in the series of Spearman's Rho Rank Correlation tests.

A Varimax rotation factor analysis was undertaken using the Likert scale variables from the survey instrument. The dimension reduction process resulted in a three factor model that explains 71.83% of the overall variation. The three factors were determined by their eigenvalues which had to be above the commonly used threshold of 1.0. The results from the factor analysis can be seen in Table 2.1. The next table, Table 2.2 identifies the factor loadings for each variable and which questioned were paired together to form reliable constructs. The rotated component matrix aims to simplify and clarify the data structure. The factor loadings in Table 2.2 are highlighted in red and italicised and show a strong correlation between within each factor. The factors were chosen based on the universally used threshold of $>.700$ which ensures a strong relation between the variables above this in each factor (Nunnally, 1978). The factor analysis delivered constructs that will allow for the measurement of perceived value, shopping styles/attitudes and trust which are core elements of this study.

The reliability of each factor was tested using a Cronbach's Alpha test which measures internal consistency. As can be seen in Table 2.2, factor 1 and 2 measured a strong reliability score of 0.873 and 0.874. An acceptable Alpha score is usually between 0.70 and 0.90 (Tavakol & Dennick, 2011) which means that factor 3 is marginally below the threshold at 0.682 however, Hullard (1999) states that this is acceptable particularly when new groupings are employed.

Table 2.1 Factor Analysis

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.599	45.992	45.992	4.599	45.992	45.992	4.521	45.207	45.207
2	1.503	15.035	61.027	1.503	15.035	61.027	1.547	15.468	60.675
3	1.081	10.810	71.837	1.081	10.810	71.837	1.116	11.162	71.837

Table 2.2 Factor Analysis – Rotated Component Matrix

Items	Component			
	Factor 1	Factor 2	Factor 3	Cronbach's Alpha
Marketing messages received on my mobile phone helps to improve my shopping efficiency especially if I am in a hurry or in a new city	.814	.183	.059	.873
Marketing messages received on my mobile phone helps to reduce the time it takes me to search for products and services	.799	.046	.076	
Marketing messages received on my mobile phone saves me money	.769	.052	.156	
Marketing messages received on my mobile phone helps me make better shopping decisions	.752	.282	.063	
Mobile marketing does not fit my idea of shopping	.044	-.848	.070	.874
Marketing messages received on my mobile phone is a waste of time	.279	-.770	.067	
Marketing messages received on my mobile phone annoys me	.203	-.742	.161	
Mobile marketing does not fit with my lifestyle	.126	-.710	.002	

I would feel more comfortable with mobile marketing if I know the marketer/company	.088	.182	.837	.682
I would feel more comfortable with mobile marketing if my permission was obtained before receiving marketing offers	.071	.138	.827	

Since the factors loadings have been determined, and confined into their constructs, it is now pertinent to further investigate the soundness of the analysis of the respective factors by determining if there is a significant relationship between each variable within them. Tables 2.3, 2.4 and 2.5 look at the correlation of the factors using non –parametric test - Spearman Rho Rank Correlation. This correlation test was chosen due to the ordinal nature of the data therefore a non-parametric test was required rather than a scale/ratio parametric test such as Pearson’s R. The concept behind undertaking these correlation tests is that it will be able to measure convergent validity i.e. how strong the constructs are when grouped together (Campbell & Fiske, 1959). The assumption of a Spearman Rho rank correlation test is that there is a monotonic relationship evident from the data which means that when the variable of one increase the other decreases or when one variable increases the other increases too (Laerd, 2013). The benefits of a Spearman Rho rank correlation over a linear test such as Pearson’s R is that a monotonic relationship is less restrictive for determining relationships due to the ordinal nature of the data.

In Table 2.3, the first factor determined by the factor analysis was a group of four variables that under the construct of ‘Shopping Styles’. For the purpose of clarity, Tables 2.3 to 2.5 the variables will be numerically named in the tables as they are

presented below (e.g. marketing messages received on my mobile phone is a waste of time = 1). The variables in this factor include:

1. Marketing messages received on my mobile phone is a waste of time
2. Marketing messages received on my mobile phone annoys me
3. Mobile marketing does not fit my lifestyle and;
4. Mobile marketing does not fit my idea of shopping

The Spearman Rho rank correlation test identified a significant positive correlation between all four variables based on $p < .01$. According to Mukaka (2012) there is a strong correlation between the each of the variables. (Based on strong = $< .7$)

Although these questions are negatively phrased, they still address attitudes and perceptions of mobile marketing and this will directly affect their shopping style.

Table 2.3. Factor 1 – Spearman Rho Correlations (Shopping Styles)

Correlations for Shopping Styles Variable						
			1	2	3	4
Spearman's Rho	1	Correlation Coefficient	1.000	.708**	.792**	.751**
		Sig. (2-tailed)	.	.000	.000	.000
		N	116	116	116	116
	2	Correlation Coefficient	.708**	1.000	.700**	.776**
		Sig. (2-tailed)	.000	.	.000	.000
		N	116	116	116	116
	3	Correlation Coefficient	.792**	.700**	1.000	.756**
		Sig. (2-tailed)	.000	.000	.	.000
		N	116	116	116	116
	4	Correlation Coefficient	.751**	.776**	.756**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	116	116	116	116

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

In table 2.4, the second factor was determined to consist of four variables that can be labelled under the construct of 'Perceived Value'. These variables include:

1. Marketing messages received on my mobile help me make better shopping decisions
2. Marketing messages on my mobile helps me to reduce the time it takes me to search for products
3. Marketing messages received on my mobile phone helps improve my shopping efficiency especially if I am in a hurry or in a new city
4. Marketing messages received on my mobile helps save me money

The Spearman Rho correlation identified a significant positive correlation between all four variables and based on the set correlation threshold mentioned in the above section, there is a moderate to strong relationship between all variables. These variable suit this particular construct as they represent the beneficial use that a consumer may see from adopting mobile marketing.

Table 2.4. Factor 2 – Spearman’s Rho Correlations – (Perceived Value)

Correlations for Perceived Variable			1	2	3	4
Spearman's rho	1	Correlation Coefficient	1.000	.717**	.743**	.635**
		Sig. (2-tailed)	.	.000	.000	.000
		N	116	116	116	116
	2	Correlation Coefficient	.717**	1.000	.690**	.649**
		Sig. (2-tailed)	.000	.	.000	.000
		N	116	116	116	116
	3	Correlation Coefficient	.743**	.690**	1.000	.616**
		Sig. (2-tailed)	.000	.000	.	.000
		N	116	116	116	116
	4	Correlation Coefficient	.635**	.649**	.616**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	116	116	116	116

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

In table 2.5, the third factor identified through the factor analysis that two variables should be used for this construct which will be labelled ‘Trust’. These variables are:

1. I would feel more comfortable with mobile marketing if mobile marketing if my permission was obtained before receiving marketing offers.
2. I would feel more comfortable with mobile marketing if I know the marketers/company

The Spearman Rho tank correlation identified a significant positive correlation between both variables and this represented a strong correlation in this construct.

The variables are suited to this construct as they both address permission and trust concerns that the consumer has about mobile marketing.

Table 2.5. Factor 3 – Spearman Rho Correlations –Trust

Correlations for Trust Variable				
			1	2
Spearman's rho	1	Correlation Coefficient	1.000	.724**
		Sig. (2-tailed)	.	.000
		N	116	116
	2	Correlation Coefficient	.724**	1.000
		Sig. (2-tailed)	.000	.
		N	116	116
**. Correlation is significant at the 0.01 level (2-tailed).				

4.4.3. Spearman Rho Rank Correlations - Analysis of Key Constructs

4.4.3.1 The components of the model

The next phase of this analysis having identified that there is a significant moderate to strong relationship between each of the factors, is that they can now be applied at the hypotheses testing stage where these factors along with the key demographics will be measured against intention to adopt mobile marketing. The second dependent variable is incorporated in to the study as it is a more intrusive, advanced and contextual form of marketing therefore hopefully resulting in a contrast in the results (Persaud & Azhar, 2012). This dependent variable incorporates the innovation aspect of mobile marketing due to the ‘innovator/early adopter’ consumer characteristics of location based marketing. Both of these dependent variables have been applied from the previous study by Persaud & Azhar (2012).

The two models that will be analysed will consist of a structured set of Likert scale variables that were included in the survey instrument to measure both constructs.

The five variables used for intention to adopt mobile marketing are:

1. I would like to receive ads via text messages on my mobile phone
2. I would respond to ads received on my mobile phone if they were appropriate to my needs.
3. I would participate in surveys sent to my mobile phone
4. I would respond to a coupon offer for a product or service on my mobile phone; and
5. I will respond to web offers received on my mobile phone while browsing the internet.

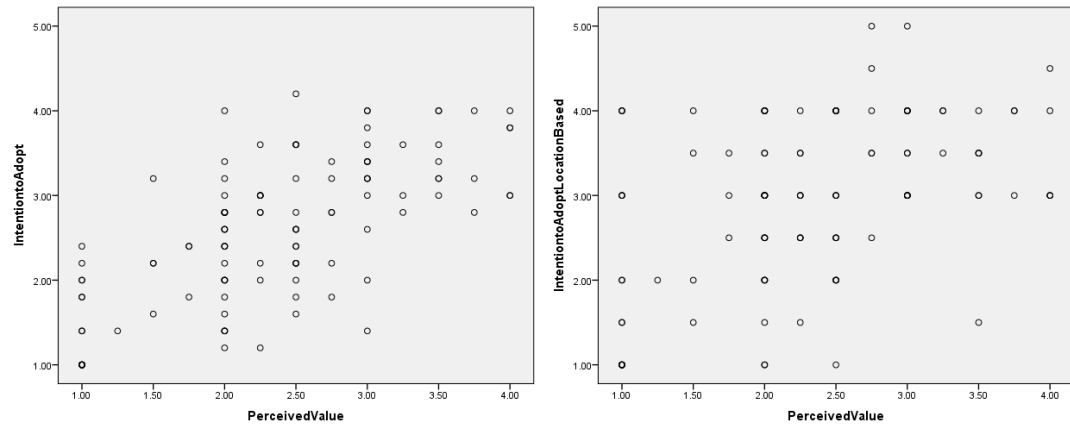
The two variables used to measure intention to adopt location based marketing are:

1. I would download content via Bluetooth when entering a shopping centre or store; and
2. I would participate in location based marketing

So the key dependent variables have been set and they will be compared against six independent variables which are perceived value, shopping styles, trust, age, education and gender. The results of the Spearman Rho rank correlation tests will identify whether there are any significant relationships and prove or disprove the hypotheses.

4.4.3.2. Perceived Value

Figure XIV. Scatter Plots and Spearman Rho Rank Correlation Results - Perceived Value



Intention to adopt mobile marketing

Intention to adopt location based marketing

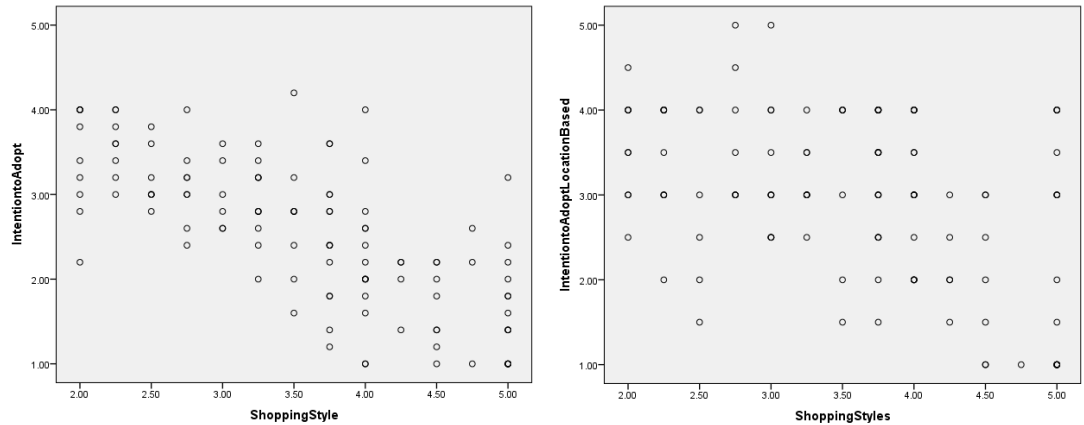
Correlations Between Dependent Variables and Perceived Value					
			Intention to Adopt Marketing	Intention to Adopt Location Based Marketing	Perceived Value
Spearman's Rho	Intention to Adopt Marketing	Correlation Coefficient	1.000	.483**	.687**
		Sig. (2-tailed)	.	.000	.000
		N	116	116	116
	Intention to Adopt Location Based Marketing	Correlation Coefficient	.483**	1.000	.432**
		Sig. (2-tailed)	.000	.	.000
		N	116	116	116
	Perceived Value	Correlation Coefficient	.687**	.432**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	116	116	116
**. Correlation is significant at the 0.01 level (2-tailed).					

The scatter plots are an extremely useful diagram for analysing relationships between two variables. The dependent variable which in this case apply to both 'intention to adopt mobile marketing' and 'intention to adopt location based marketing' are on the Y axis and 'perceived value' is on the X axis (See Figure XIV). Scatter plots are most commonly used to prove and disprove cause and effect relationships. It is important to note that whilst these diagrams show relationships, it does not identify whether one variable causes the other i.e. correlation is not causation (Concordia, 2013).

The first scatter plot diagram along with the results of the Spearman Rho rank correlation (Figure XIV) confirms that there is a significant moderately positive monotonic relationship between perceived value and intention to adopt mobile marketing ($RS(116) = .687, p = .000$). There is however evidence of outliers which have impacted the correlation coefficient. An outlier is essentially a correct point that is different from the other points. The second scatter plot resulted in a significant low positive monotonic relationship with support from the Spearman Rho rank correlation ($RS(116) = .432, p = .000$).

4.4.3.3. Shopping Styles

Figure XV – Scatter Plots and Spearman Rho Rank Correlations – Shopping styles



Intention to adopt mobile marketing

Intention to adopt location based marketing

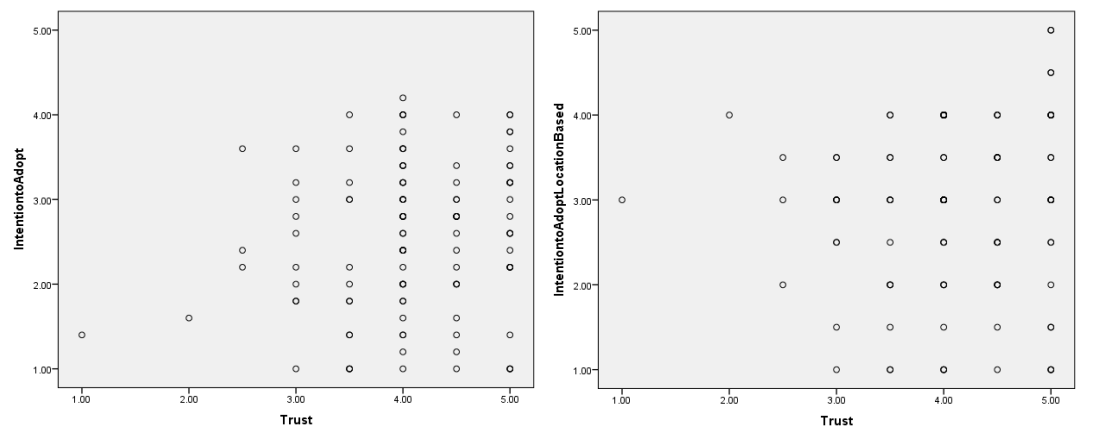
Correlations between the Dependent Variables and Shopping Style					
			Intention to Adopt Mobile Marketing	Intention to Adopt Location Based	Shopping Styles
Spearman's rho	Intention to Adopt Mobile Marketing	Correlation Coefficient	1.000	.483**	-.743**
		Sig. (2-tailed)	.	.000	.000
		N	116	116	116
	Intention to Adopt Location Based	Correlation Coefficient	.483**	1.000	-.410**
		Sig. (2-tailed)	.000	.	.000
		N	116	116	116
	Shopping Styles	Correlation Coefficient	-.743**	-.410**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	116	116	116
**. Correlation is significant at the 0.01 level (2-tailed).					

The first scatter plot (Figure IX) shows a significant negative strong monotonic correlation between shopping styles and intention to adopt mobile marketing (RS (116) = -.743, $p = .000$) and the second scatter plot shows a moderate negative monotonic correlation between shopping styles and intention to adopt location based marketing (RS (116) = -.410, $p = .000$). The outliers are evident in both diagrams but are more prevalent in the second scatter plot with insinuates that there is a lesser

degree of negativity towards shopping styles with innovative marketing tools such as location based marketing.

4.4.3.4 Trust

Figure XVI. Scatter Plots and Spearman Rho Rank Correlation - Trust



Intention to adopt mobile marketing

Intention to adopt location based marketing

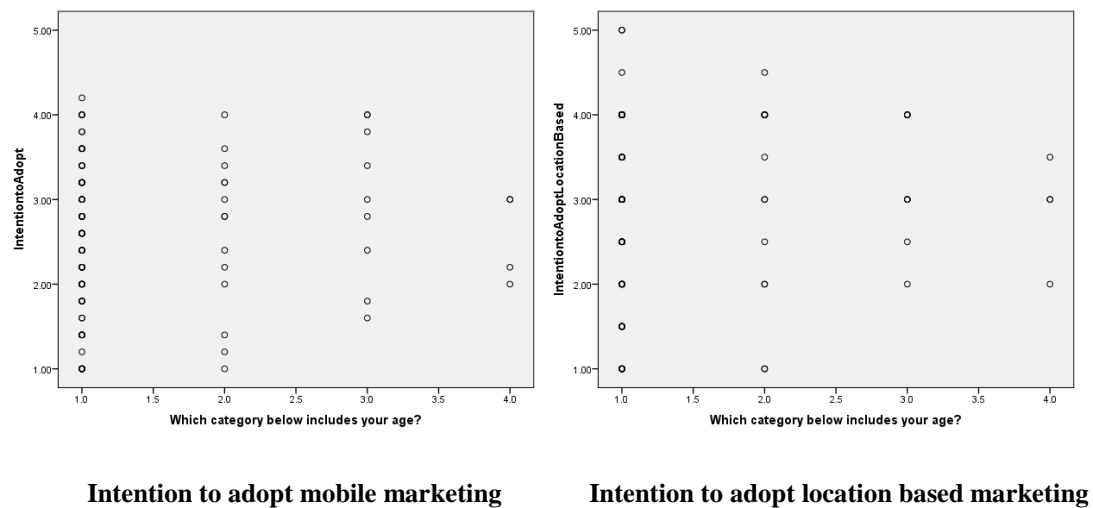
Correlations between the Dependent Variables and Trust					
			Intention to Adopt Mobile Marketing	Intention to Adopt Location Based Marketing	Trust
Spearman's rho	Intention to Adopt Mobile Marketing	Correlation Coefficient	1.000	.483**	.143
		Sig. (2-tailed)	.	.000	.125
		N	116	116	116
	Intention to Adopt Location Based Marketing	Correlation Coefficient	.483**	1.000	.106
		Sig. (2-tailed)	.000	.	.259
		N	116	116	116
	Trust	Correlation Coefficient	.143	.106	1.000
		Sig. (2-tailed)	.125	.259	.
		N	116	116	116

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

It can be seen from both scatter plots and the Spearman Rho rank correlations (Figure XVI) that there is no significant relationship between trust and intention to adopt mobile marketing and location based marketing. (RS (116) = .143, $p = .125$ and RS (116) = .106, $p = .106$).

4.4.3.5. The Key Demographics –Gender, Age and Education

Figure XVII. Scatter Plots and Spearman Rho Rank Correlation - Gender



Correlations Between the Dependent Variables and Gender					
			Intention to Adopt	Intention to Adopt Location Based	What is your gender?
Spearman's rho	Intention to Adopt	Correlation Coefficient	1.000	.483**	.296**
		Sig. (2-tailed)	.	.000	.001
		N	116	116	116
	Intention to Adopt Location Based	Correlation Coefficient	.483**	1.000	.194*
		Sig. (2-tailed)	.000	.	.037
		N	116	116	116
	What is your gender?	Correlation Coefficient	.296**	.194*	1.000
		Sig. (2-tailed)	.001	.037	.
		N	116	116	116
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

It was seen earlier in this particular study, there was a trend towards women being more acceptant of mobile marketing as there were 13 of the Likert scale variables that they showed a larger ranked means than the males and swayed more to the agreeable side of the Likert scale. In terms of a correlation with intention to adopt mobile marketing and intention to adopt location based marketing, gender proves to have a significant weak positive relationship with intention to adopt mobile marketing ($RS(116) = .326, p = .022$) and a weak significant relationship with Intention to adopt location based marketing ($RD(116) = .194, p = .037$).

Having conducted vigorous tests using scatter plots and Spearman Rho rank correlations on the rest of the behavioural demographics against both of the dependent variables, the results proved that there was no significant relationships between any of the independent variables and the dependent variables.

5. Discussion

5.1 Restatement of Aims and Objectives

This study was set out to investigate the key drivers that contribute to a consumer's willingness to adopt mobile marketing in Ireland. As portrayed in this study, the mobile industry is booming at present. The mobile phone has near complete market penetration of the global population and with the introduction of the smartphone, there is massive untapped potential for marketers to utilise this new communications channel. The importance of this study cannot be understated in terms of the prospective revenue stream it can bring in for companies and only now the business decision makers are looking at adopting mobile into their overall commercial strategies.

In Ireland, the smartphone market is experiencing exponential growth with the penetration rate now standing at 57% which is up from 42.7% in 2012. The fact that the mobile phone is considered to be a very 'personal' device which consumers have an intimate relationship allows marketers to reach consumers 'anytime' and 'anywhere'. The evidence is clear to why mobile marketing has all the characteristics to be widely successful on the mobile platform but there appears to be a distinct lack of academic research completed on the drivers that motivate Irish consumers to adopt mobile marketing. As it's widely known, different international markets have different cultures and social norms. In dealing with human behaviour, the researcher felt that a study was pertinent to ascertain what these drivers were and to adopt them to an Irish market.

Since there are no known conclusive drivers that contribute to a consumer's willingness to adopt mobile marketing in Ireland, the researcher adapted hypotheses

from academic literature such as Persaud & Azhar (2012) who completed a study in Canada on what drivers contribute to a Canadian consumers acceptance of mobile marketing. The key drivers identified that were applied in this study were Perceived Value, Shopping Styles and Trust with the key demographics Age, Education and Gender. So, the main research question that everything in this study has fallen under is:

“What key drivers that contribute to a consumer’s willingness to adopt mobile marketing are applicable in an Irish Context?”

This research question was accompanied by four research objectives from which six hypotheses were formulated. The hypotheses will be addressed in the next section.

The research objectives are:

RO 1. “To examine what relationship perceived value had on an Irish consumer’s willingness to adopt mobile marketing”

RO 2. “To examine what relationship trust has on an Irish consumer’s willingness to adopt mobile marketing”

RO 3. “To examine what relationship shopping styles has on a consumer’s willingness to adopt mobile marketing”

RO 4. “To examine what key demographics correspond with a consumer’s willingness to adopt mobile marketing”.

5.2 Summary of Key Empirical Findings

From the research objectives, six hypotheses were formulated to test the theory of the key drivers of consumer mobile marketing acceptance. As can be seen below, out of the six hypotheses proposed only two were supported in this study.

<i>No</i>	Hypotheses Proposed	Result
<i>H1</i>	<i>Perceived Value is positively related to an Irish consumer's willingness to adopt mobile marketing</i>	<i>Supported</i>
<i>H2</i>	<i>Trust is positively related to a consumers willingness to adopt mobile marketing</i>	<i>Rejected</i>
<i>H3</i>	<i>Shopping Styles that are compatible with mobile marketing are positively related to an Irish consumer's willingness to adopt mobile marketing</i>	<i>Rejected</i>
<i>H4</i>	<i>A higher educated Irish consumer is more likely to adopt mobile marketing</i>	<i>Rejected</i>
<i>H5</i>	<i>Younger Irish consumers are more likely to adopt mobile marketing</i>	<i>Rejected</i>
<i>H6</i>	<i>Gender will play no part in an Irish consumers willingness to adopt mobile marketing</i>	<i>Rejected</i>

As expected, a Spearman's Rho rank correlation test resulted in a significant strong positive relationship between perceived value and an Irish consumer's willingness to adopt mobile marketing. The results of this test were (RS (116) = .687, $p = .000$).

Therefore, the hypothesis is supported

A Spearman's Rho rank correlation test was carried out to determine if there was a significant positive relationship between trust and a consumer's willingness to participate in mobile marketing and location based marketing. The test proved that there was no relationship between trust and either of the variables. Therefore, the hypothesis is rejected

A Spearman's Rho rank correlation test was carried out to determine if there was a significant relationship between shopping styles and an Irish consumer's willingness to adopt mobile marketing. The test resulted in a significant strong negative relationship between both variables. The results of this test were ($RS(116) = -.743, p = .000$). Thus, the hypothesis is supported.

Each of the key demographics were tested for variances between their groups so as to determine if mobile marketing is more likely to be adopted by any over the other. The tests that used to determine variance were the non-parametric tests of Kruskal Wallis and Mann Whitney U. There proved to be no significant variances between with both education and age however there were 13 variable that proved to be significant when measuring the gender demographic. The tests proved that women were more likely to accept mobile marketing from evidence of the average rank mean they portrayed. However, seeing as it was proposed that gender will play no part in a consumer's willingness to adopt mobile marketing, the hypothesis is rejected along with age and education.

From observation of these results, it would appear that the drivers of mobile marketing adoption by Irish consumers as a whole are not represented and there is a distinct dissimilarity in regards to demographic behaviour. This will be discussed in the next section which will look at the interpretation of findings.

5.3 Interpretation of Findings

5.3.1 Smartphone Adoption

Mobile marketing as stated numerous times in this study is an industry that is on the rise. Smartphone adoption in Ireland is currently at a 57% penetration rate of the whole population (Our Mobile Planet, 2013). One of the key observations that was made first about the findings of this study was that 95% of the participants were smartphone owners which is a 38% up on the national rate. This abnormally high statistic could be a result of the profile of the sample. 89% of the age category were from the group 18-24 and 25-34. The Generation Y cohort as mentioned by Deloitte (2013), covers those who were born between the 1980 and 1994 which would put both of these groups right in the middle of the generation. As Kotler & Keller (2011) mentioned, one of the key characteristics of this generation is being tech savvy which would imply that from age 19-33 which covers practically both age groups, consumers would be more open to adopting mobile technologies hence, the smartphone. From a marketing practitioner's standpoint, the more the smartphone adoption rises the wider the reach is for targeting consumers using an array of innovative marketing tools.

5.3.2 The Personal Device

Irish consumers appears to exemplify the theory from the literature that the mobile phone is considered to be an extremely personal device. They like to connect to the internet frequently with this being their most common feature that they use their smartphones for. They also like to download content and have no problem with making small purchases through their mobile device. These are positive signs for

marketers looking to target Irish consumers with a propensity for technology adoption according to this study. Marketers should look to develop marketing communications that play on the tight relationship that Irish consumers have with their phones and may be able to bring an emotive connection into marketing messages that could become quite impactful.

5.3.3 Value is Critical

From a theoretical perspective, this study has allowed for further understanding of the key drivers that contribute to a consumer's willingness to adopt mobile marketing. Value as stated in studies by Sharl *et al* (2005) and Bauer *et al*, (2005) is a core component of marketing acceptance and it differs not in this paper. Value is positively related with intention to adopt mobile marketing within the sample allowed for the assumption the Irish consumers are very much aligned with a value seeking nature. Irish consumers are looking to ensure that they are only integrating marketing communications that offer them something in return. It's clear from the findings that they are looking for all round value including being incentivised. Interestingly, Irish consumers have a respond is a strongly disagreeable stance when asked if they would like to receive adverts via their mobile phone but this changes drastically when these adverts are incentivised. Marketers can take advantage of this knowledge by ensuring that marketing communication's through a mobile device are always clear about the value that they offer the consumer. The Irish consumer has to feel as if they are benefiting from the communication or else it will just get lost in the clutter.

Another opportunity for marketers in terms of perceived value, is that it is positively related to location based marketing even more so than mobile marketing. Location based marketing in this study represents innovation adoption and the participants in this sample have a favourable viewpoint of adopting it. The conceived capability for marketers to reach consumers through specific bespoke targeted campaign through location based marketing or Bluetooth technology is encouraging knowing that the Irish consumer is open to acceptance.

5.3.4 No relation to Trust

One of the core observations from the findings is that trust is unrelated to a consumer's willingness to participate in mobile marketing. With studies such as Huang (2012); Barnes & Scornavacca (2004) and Al-Alak & Alnawas (2010) all professing that trust is a core driver in their consumer adoption models, it is curious that this is not reflected here in this study. Merisavo *et al* (2010) found in their adoption model of mobile advertising that there was a relationship but a very weak one although it still has a slight significance. This study not even close to having a significant relationship with willingness to adopt mobile marketing. It would appear that Irish consumers do not consider trust to be a key component of their intention to adopt mobile marketing. From the findings the participants sway considerably to the agreeable side of the Likert scale in the survey results. This implies that consumers agree that permission based marketing and knowledge of the marketer are important but does not affect their willingness to adopt mobile marketing. A logical reason for this is that 95 % of the participants own a smartphone and use the internet frequently on their device therefore, there is a degree of familiarity with mobile marketing. It

could be assumed that initially trust may have been a key driver of their willingness to adopt mobile marketing but through familiarity of their device and hence mobile marketing, trust has lost its significance and they now focus more on other drivers such as value and incentivisation. Luhmann (2000) states that familiarity is an unavoidable fact of life and trust is a solution for specific problems of risk. Without trust there cannot be familiarity in the first place but it appears that the Irish consumer has now evolved in terms of mobile marketing adoption where familiarity has replaced trust and therefore risk.

5.3.5 Shopping Styles not compatible

This study has found that Irish consumers have a significant negative relationship with their willingness to adopt mobile marketing. It must be noted that the variables used to measure shopping styles were all negatively phrased to determine if consumers has negative sentiment toward adopting mobile marketing. The questions used addressed mobile marketing and the consumer's lifestyle and perception of mobile marketing as a whole. Based on the descriptive findings from this study it is clear that Irish consumers hold an adverse perception of mobile marketing in terms of it impacting their shopping styles. The negative relationship indicates that the more consumers feel that mobile marketing is a non-entity in influencing their shopping styles the less likely they are to adopt mobile marketing.

This is a dynamic insight into the mind-set of the Irish consumer and the problems that mobile marketers face today. Too often marketers undervalue segmentation and specific targeting in their mobile marketing strategies due to the relatively low incremental cost and ease of implementation. This goes against all the benefits that

mobile marketing has to offer such as personation of contextual information through the use of innovative marketing tools such as Bluetooth. Mobile marketing as stressed in this paper previously, has the capability of reaching the consumer 'anytime' and 'anywhere' and this is not being reflected in Ireland today as consumers still don't see the opportunity of using mobile marketing to enhance their shopping style. It's true that the range of mobile marketing tools may not be for every consumers but the findings from this paper suggest that there is a lack of information been given to the consumer on the unique aspects of using mobile marketing to save them money by using mobile coupons for example.

Therefore, the hypothesis stated in this paper that Irish consumers whose shopping styles are compatible with mobile marketing with be more likely to adopt mobile marketing is rejected. Although it can be said, that a negative sentiment towards shopping styles with mobile marketing brews low adoption where a shift in awareness of the shopping benefits of mobile marketing should reverse the trend towards mobile marketing acceptance. This is down to the marketing practitioners to ensure an awareness campaign is undertaken as consumers will reject messages especially to their 'private' mobile phone if they are unfamiliar with the process.

5.3.6 The Demographics

It's safe to assume that the hypotheses stated in this study apart from one have been unsuccessful in determining the true motivation for an Irish consumer to adopt mobile marketing. The demographic results have also proven to be vastly different to the predicted outcomes. The age demographic has a logical reasoning behind its outcome with the high rate of the smartphone users being in the 'tech savvy'

Generation Y cohort therefore differentiation between the two groups may be at a minimum especially with a 95%. The fact that there is a substantial difference in intention to adopt mobile marketing between the two genders and that females are more likely to adopt mobile marketing than males gives a marketers an opportunity to reach females more effectively. The findings suggest that males are less confident about what mobile marketing can offer them and therefore they are less responsive. Marketers need to be precise about the mobile marketing messages to males in order to target them effectively and present offerings that reach them on a personal level.

5.3.7 Comparisons to adapted study

The paper by Persaud & Azhar (2012) as stated many times in this study has been a core aspect of the research design of this paper. Since it was the most relevant paper in terms of mobile marketing adoption through a smartphone it is pertinent to examine the key differences in findings between the two papers. One of the most striking findings in terms of smartphone adoption was comparing this study to that of Persaud & Azhar (2012) where the smartphone ownership was only 38% of the overall sample. This is a stark contrast to the sample chosen for this study which had 95%. The original survey instrument was used back in 2011 so this the different in smartphone adoption reflects how fast the mobile industry is moving. All of the stated hypotheses around perceived value, shopping style and trust were supported in the Persaud & Azhar (2012) study along with the key demographics which highlights the contrast in difference in Canadian and Irish consumers. As mentioned before, cultural difference have the ability to play a huge role in mobile marketing

adoption and this is an area that requires further research to determine exactly what drivers are most effective in an Irish context.

6. Recommendations

Although this study has provided insights into consumer opinions and attitudes towards mobile marketing in Ireland, it can be noted that the research survey instrument was unable to get a complete grasp of the drivers of mobile marketing adoption and further research should look to approach this topic with a different scope. The most effective way of determining the motivational drivers is to constantly reassess what components of mobile marketing that consumers find most beneficial. Therefore, rather than testing for drivers of adoption as a whole, future research should look at what current knowledge do consumers have of mobile marketing and its innovative tools and test them individually to assess what areas consumers are willing to adopt and where needs to be refined. An extensive qualitative study using an interview or focus group structure may prove to be insightful.

7. Research Limitations and Critical Appraisal of

Methodology

It is essential to acknowledge the limitations of this study so as future research can address these issues within their own research design. They are as follows:

The survey instrument was in this case the wrong research tool. This study with the researchers knowledge has not of been completed before in Ireland therefore the key drivers that motivate Canadian consumers to adopt mobile marketing has not been reflected in this study.

Mobile marketing as stated numerous times throughout this paper is a very fast based industry with new innovations being introduced all the time. The potential affect that that may have on this paper is that the research here may become redundant in 5 or 10 years dues to the introduction of new technologies. This can be clearly seen with the introduction of the smartphone. Just under decade ago, researchers were focusing their mobile research studies on SMS marketing and WAP without the knowledge of the impending smartphone generation. So to sum it up, this study has a shelf life and with the growth of the technology sector it may only have a few years as being truly relevant.

In terms of research literature available on the topic of attitudes and perceptions towards mobile marketing, there is a number of consumer related marketing literature available however, there is very little literature that integrates what impact the smartphone has made on the mobile industry. The consumer's relationship with their mobile has changed dramatically since the introduction of the smartphone due to the device becoming an 'all in' i.e. it possesses the ability to browse the internet,

make calls through a camera (Skype), download apps and provide all the other basic functionalities of a phone.

In terms of the actual research of the paper, it would have been a slightly more comprehensive study with a larger sample size of 116. The researcher aimed to get target of 140 but this proved to be unachievable in the timeframe set. With a larger sample it may have been possible to get conclusive confirmation that the results seen in this study were in fact accurate.

The survey method was perfect for this type of quantitative research design but a longitudinal study based on qualitative methods of research may prove to provide a more vigorous test of the Irish consumer's true perceptions and attitudes towards mobile marketing adoption. There are cultural, economic and environmental factors that cannot be addressed quantitatively especially since this is a pilot study in an Irish context to the best of the researchers' awareness. These factors could help marketers redefine their marketing strategies to really optimise their ability to target the Irish consumer improving efficiency for all.

8. Conclusion

In short this study has given a worthwhile in-depth analysis of the key drivers that motivate a consumer's willingness to adopt mobile marketing in Ireland. The study itself is adding to the literature in the area of consumer adoption of mobile marketing. it may not have provided a concise determination of what motivates Irish consumer's but it has paved the way for future research to be conducted. By eliminating the drivers that are applicable in other markets, researchers can focus on other aspects of mobile marketing that Irish consumers may be receptive to. The industry is growing and a need to constantly understand consumer motivations is key for the success of mobile marketing.

9. Ethical Issues

The following ethical standards will be abided by for the entire duration of the study:

- Participants are not from a vulnerable group.
- Participants are not from a biased group.
- Research topic is not of a sensitive nature.
- Participants will be recruited ethically and will not be harassed or encouraged to complete the survey under duress.
- The research data results will be stored on a secure password computer and will be disposed of responsibly on the 9th of September 2014 exactly a year after the hand-in of the dissertation.
- If any data is to be used in a publication of any sort, the participants will be contacted for their approval.
- All data will be anonymised

References

- 360i, (2011), 'Mobile Marketing Playbook', IAB, [Online], <http://www.iab.net/media/file/360i-Mobile-Marketing-Playbook.pdf>, [Accessed June 17th 2013]
- Al-alak, B.A.M. & Alnawas, I.A.M. (2010), 'Mobile Marketing: Examining the Impact of Trust, Privacy Concern and Consumers Attitudes on Intention to Purchase', *International Journal of Business and Management*, Vol. 5, No. 3, pp. 28-41
- Ali, H., & Birley, S. (1998). 'The role of trust in the marketing activities of entrepreneurs establishing new ventures'. *Journal of Marketing Management*, 14(7), 749-763.
- Amarach, (2011) 'The Smart Future: An Amarach Briefing', *Amarach Research*, May 2011, Available at: <http://www.amarach.com/assets/files/The%20Smart%20Future.pdf>, [Accessed: 24th July, 2013]
- Amoroso, D.L. & Magnier-Watanabe, R. (2012), 'Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan', *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 7, no. 1, pp. 94-110
- Anderson, E., & Weitz, B. (1989). 'Determinants of continuity in conventional industrial channel dyads'. *Marketing science*, 8(4), 310-323.
- Andrews, T. Smyth, R. Tynan, B. Vale, D. & Caladine, R. (2008), 'Rich Media Technologies and Uncertain Futures: Developing Sustainable, Scalable models', In Hello! Where are you in the Landscape of Educational Technology? Proceedings Ascilite Melbourne 2008.
- Arts, J. W., Frambach, R. T., & Bijmolt, T. H. (2011). 'Generalizations on consumer innovation adoption: a meta-analysis on drivers of intention and behaviour.' *International Journal of Research in Marketing*, 28(2), 134-144.
- Au, Y. A., & Kauffman, R. J. (2008). 'The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology

application.’ *Electronic Commerce Research and Applications*, 7(2), 141-164.

Available at:

<http://www.ascilite.org.au/conferences/melbourne08/procs/andrews.pdf>, [Accessed: July 3rd, 2013]

Azares, (2012) ‘ Reaction to Bluetooth Proximity Marketing in LA Area Malls’, *University of North Carolina*, Available at:

<http://www.unc.edu/~azares/Reactions%20to%20Bluetooth%20Proximity%20Marketing%20in%20LA%20Area%20Malls.pdf>, [Accessed: 25th July, 2013]

Azhar, I. (2010) ‘TECHNOLOGY ACCEPTANCE: THE CASE OF MOBILE MARKETING IN CANADA’.

Barnes, S. J., & Scornavacca, E. (2004). ‘Mobile marketing: the role of permission and acceptance.’ *International Journal of Mobile Communications*, 2(2), 128-139.

Bart, Y., Shankar, V. Sultan, F. & Urban, G. L. (2005), ‘Are the Drivers and the Role of Online Trust the Same for All Web Sites and Consumers? A Large-Scale Exploratory Empirical Study’, *American Marketing Association*, Vol.69, (Oct, 2005), 133-152, Available at:
[http://ebusiness.mit.edu/urban/papers/are%20the%20drivers%20and%20role%20\(jpm%202005\).pdf](http://ebusiness.mit.edu/urban/papers/are%20the%20drivers%20and%20role%20(jpm%202005).pdf), [Accessed: 22nd July, 2013]

Barutcu, S, (2007) ‘Attitudes towards mobile marketing tools: A study of Turkish consumers’, *Journal of Targeting, Measurement and Analysis for Marketing* : Vol. 16, 1, 26–38.

Barwise, P. & Farley, J.U. (2005), ‘The state of interactive marketing in seven countries: interactive marketing comes of age’. *Journal of Interactive Marketing*, Vol. 19. No. 3, 67-80.

Barwise, P. & Strong, C. (2002), ‘Permission-based mobile advertising’, *Journal of Interactive Marketing*, Vol. 16 No. 1, pp. 14-24.

Bauer, H.H., Barnes, S.J. Reichardt T., & Neumann M.M. (2005), ‘Driving Consumer Acceptance of Mobile Marketing: A Theoretical Framework and Empirical Study, *Journal of Electronic Commerce Research*, 6 (3), 181-191.

- Berg Insight (2012) 'Mobile Location Based Services', *LBS Research Series*, Available at: <http://www.berginsight.com/ReportPDF/ProductSheet/bi-lbs7-ps.pdf>, [Accessed: 4th August, 2013]
- Blaikie N (2010) 'Analysing Quantitative Data'. London: Sage Publications.
- Brand Channel, (2012) 'The Growth of Location-Based Services and The Power of Proximity Marketing' *Proximus White Paper*, Available at: http://www.brandchannel.com/images/papers/534_proximus_wp_01-12.pdf, {Accessed: 5th July, 2013]
- Campbell, D. T., & Fiske, D. W. (1959). 'Convergent and discriminant validation by the multitrait-multimethod matrix'. *Psychological bulletin*, 56(2), 81.
- Canadi, M., Höpken, W., & Fuchs, M. (2010). 'Application of qr codes in online travel distribution'. In *Information and Communication Technologies in Tourism 2010* (pp. 137-148). Springer Vienna.
- Carr, M. (2008). 'Mobile Payment systems and services: An introduction' In *Mobile Payment Forum* (pp. 1-12).
- Carroll, J., Howard, S., Peck, J., & Murphy, J. (2007). 'From adoption to use: the process of appropriating a mobile phone'. *Australasian Journal of Information Systems*, 10(2).
- Celtra (2012), 'Rich Media Mobile Ads', The Gazette, Montreal, [Online], <http://digitalprojects.montrealgazette.com/wp-content/uploads/2012/10/Mobile-and-Tablet-Rich-Media.pdf>, [Accessed June 24th 2013]
- Clarke, I. (2001). 'Emerging value propositions for m-commerce'. *Journal of Business Strategies*, 18(2), 133-148.
- CMO, (2012) 'Gen Y: Media Survey', *CMO Insight*, Available at: <http://www.cmo.com/articles/2010/12/20/gen-y-affluents-media-survey.html>, [Accessed: 3rd August]
- Cole-Lewis, H., & Kershaw, T. (2010). 'Text messaging as a tool for behavior change in disease prevention and management'. *Epidemiologic reviews*, 32(1), 56-69.

comScore (2011), '2010 mobile year in review', Available at: www.comscore.com [accessed: July 11, 2013]

Concordia (2013) 'Exploratory and Confirmatory Factor Analysis', Available at: <http://psychology.concordia.ca/fac/kline/Library/k13b.pdf>, [Accessed: 20 July, 2013]

Costello, A.B. (2005). 'Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most From Your Analysis'. *Practical Assessment, Research and Evaluation*, 10, 1-9.

De, K. (2011), 'Marketing to Women: research about digital influence and the female Irish consumer' Available at: <http://krishnade.com/2011/marketing-to-women/>, [Accessed: 23rd July, 2013]

Dehkordi, G.J., Rezvani, S. Rahman, M.S. & Fouladivanda, F. (2012), ' A Conceptual Study on E-marketing and its Operation on Firm's Promotion and Understanding Customer's Response', *Canadian Centre of Science and Education, International Journal of Business and Management*, Vol. 7, No19, Available at: <http://www.ccsenet.org/journal/index.php/ijbm/article/viewFile/17362/13666>, [Accessed: 9th August, 2013]

Deloitte, (2007) 'Generation Y', Moving with the times, *Deloitte White Paper*, Available at: http://www.deloitte.com/assets/Dcom-Ireland/Local%20Assets/Documents/ie_M_generation_y_pr_0807_draft2.pdf, [Accessed: 12th July, 2013]

Deloitte, (2013) 'The Dawn of Mobile Influence', Discovering the Value of Mobile in Retail, *Deloitte Digital*, Available at: http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/RetailDistribution/us_retail_Mobile-Influence-Factor_062712.pdf, [Accessed: 3rd August, 2013]

Dickenger, A and Haghirian, P. (2004), 'An Investigation and Conceptual Model of SMS Marketing'. *Proceedings of the 37th Hawaii International Conference on System Sciences*. Hawaii, USA: IEEE

Durlacher Research Ltd., 'Mobile Commerce Report', London, 1 Sadeh, N., M-Commerce: Technologies, Services, and Business Models. New York: John Wiley & Sons, 2002.999

- Elkington, H., & Linden, T. (2001). 'M-commerce changes the marketing game'. *Interactive Marketing*, 3(1), 42-45.
- E-Marketer, (2013) 'Smartphone Adoption Tips past 50% in Major Markets Worldwide', *e-Marketer Newsletter*, Available at: <http://www.emarketer.com/Article/Smartphone-Adoption-Tips-Past-50-Major-Markets-Worldwide/1009923>, [Accessed: 23rd July, 2013]
- Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2003). 'Empirical testing of a model of online store atmospherics and shopper responses'. *Psychology & Marketing*, 20(2), 139-150.
- Forrester, (2013) '2013 Mobile Workforce Adoption Trends', VMware, Available at: http://www.vmware.com/files/pdf/Forrester_2013_Mobile_Workforce_Adoption_Trends_Feb2013.pdf, [Accessed: 3rd August, 2013]
- Friedman, M. (1999). '*Reconsidering logical positivism*'. Cambridge University Press.
- Gao, T. T., Sultan, F., & Rohm, A. J. (2010). 'Factors influencing Chinese youth consumers' acceptance of mobile marketing'. *Journal of Consumer Marketing*, 27(7), 574-583.
- Gartner, (2013) 'Gartner Says Asia/Pacific Led Worldwide Mobile Phone Sales to Growth in First Quarter of 2013', *Gartner Newsroom*, Available at: www.gartner.com/newsroom/id/2482816, [Accessed: 3rd August]
- Germanakos, P., Tsianos, N., Lekkas, Z., Mourlas, C., & Samaras, G. (2008). 'Capturing essential intrinsic user behaviour values for the design of comprehensive web-based personalized environments'. *Computers in Human Behavior*, 24(4), 1434-1451.
- Gill, J. and Johnson, P. (2010), 'Research Methods for Managers', 6rd ed., Paul Chapman, London
- Godin, S. (1999), 'Permission Marketing: Turning Strangers into Friends, and Friends into Customers', Simon and Schuster, New York, NY.
- Godin, S. (2008). '*Tribes: We need you to lead us.*' Penguin.

- Goldsmith, R. E., Freiden, J. B., & Eastman, J. K. (1995). 'The generality/specificity issue in consumer innovativeness research'. *Technovation*, 15, 601–612
- Grant, I., & O'Donohoe, S. (2007). 'Why young consumers are not open to mobile marketing communications'. *International Journal of Advertising*, 26(2), 223-246.
- Grant, I., & O'Donohoe, S. (2007). 'Why young consumers are not open to mobile marketing communications'. *International Journal of Advertising*, 26(2), 223-246.
- Greene, J., & D'Oliviera, M. (2006) 'Learning to use statistical tests in psychology', 3rd Ed, *Open University Press*
- Gronbach, K. W. (2008). '*The age curve: how to profit from the coming demographic storm*'. Amacom.
- Ha, Y., & Stoel, L. (2004). 'Internet apparel shopping behaviors: the influence of general innovativeness'. *International Journal of Retail & Distribution Management*, 32(8), 377-385.
- Hackbert, P. H. (2011). 'The smartphone as an economic development tool: A preliminary investigation'. *Society of Business Research, Tech. Rep.*
- Haghirian, P., & Inoue, A. (2007). 'An advanced model of consumer attitudes toward advertising on the mobile internet'. *International Journal of Mobile Communications*, 5(1), 48-67.
- Hall, R. E. (2010). '*Introduction*' (pp. 1-10). Springer New York.
- Heinonen, K. & Strandvik, T. (2003), 'Consumer Responsiveness to Mobile Marketing,' Paper presented at the Stockholm Mobility Roundtable, Stockholm, Sweden.
- Hirschheim, R. (1985). 'Information systems epistemology: An historical perspective'. *Research methods in information systems*, 13-35.
- Huang, R. (2012). 'How brand awareness relates to market outcome, brand equity, and the marketing mix'. *Journal of Business Research*, 65(1), 92-99.
- Hulland, J. (1999). 'Use of partial least squares (PLS) in strategic management research: a review of four recent studies'. *Strategic management journal*, 20(2), 195-204.

- Hung, S. Y., Ku, C. Y., & Chang, C. M. (2003). 'Critical factors of WAP services adoption: an empirical study'. *Electronic Commerce Research and Applications*, 2(1), 42-60.
- ITU (2012), 'Measuring the Information society', *International Telecommunications Union Report*.
- ITU, (2006) 'World Telecommunications Report 2006', Measuring ICT for Social and Economic Development, *International Telecommunications Union*, Available from: http://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-WTDR-2006-SUM-PDF-E.pdf, [Accessed 22nd July, 2013]
- ITU, (2013) 'The World in 2013', ICT Facts and Figures, *International Telecommunications Union*, Available at: <http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2013.pdf>
- Jamieson, L. F., & Bass, F. M. (1989). 'Adjusting stated intention measures to predict trial purchase of new products: A comparison of models and methods'. *Journal of Marketing Research*, 336-345.
- Jayawardhena, C., Kuckertz, A., Karjaluoto, H., & Kautonen, T. (2009). 'Antecedents to permission based mobile marketing: an initial examination'. *European Journal of Marketing*, 43(3/4), 473-499.
- Karjaluoto, H., Lehto, H., Leppäniemi, M., & Jayawardhena, C. (2008), 'Exploring gender influence on customer's intention to engage permission based mobile marketing'. *Electronic Markets*, 18(3), 242
- Karlsson, S. & Lugn A. 'Who Invented SMS?' 07 12 2009. 11 12 2010 <<http://ericssonhistory.com/templates/Ericsson/EricssonBook/Article.aspx?id=4044&epslanguage=EN>>.
- Karpinski, R. (2011), Mobile phones poised to become mobile wallets', *B to B*, vol. 96, no. 5, pp. 1-n/a.
- Kollock, P. (1999). 'The production of trust in online markets'. *Advances in group processes*, 16, 99-123.
- Kootstra, G.J. (2004). 'Exploratory Factor Analysis: Theory and Application'.

- Kotler, P., and Keller. (2011) '*Marketing Management*'. 14th ed. New Jersey: Pearson Prentice Hall.
- Kourtis, S. (2011), 'Upwardly Mobile', *Target Marketing*, vol. 34, no. 4, pp. 22-23.
- Kovács, G., & Spens, K. M. (2005). 'Abductive reasoning in logistics research.' *International Journal of Physical Distribution & Logistics Management*, 35(2), 132-144.
- Laerd, (2013) 'Spearman's Rank-Order Correlaton' Retrieved 12th August 2013, <https://statistics.laerd.com/statistical-guides/spearmans-rank-order-correlation-statistical-guide.php>
- Leppäniemi M., & Karjaluoto H, (2005) 'Factors influencing consumers' willingness to accept mobile advertising: a conceptual model'. *International Journal of Mobile Communications*, Vol. 3. No. 3, 197-213
- Leppäniemi, M., & Karjaluoto, H. (2008). 'Mobile marketing: From marketing strategy to mobile marketing campaign implementation'. *International Journal*
- Littrell, M. A., Ma, Y. J., & Halepete, J. (2005). 'Generation X, Baby Boomers, and Swing: marketing fair trade apparel'. *Journal of Fashion Marketing and Management*, 9(4), 407-419.
- Malhotra, N., & Birks, D. (2007). '*Marketing Research: an applied approach: 3rd Edition*'. Pearson Education.
- Sheehan, K. B. (2001). 'E-mail survey response rates: A review' *Journal of Computer-Mediated Communication*, 6(2), 0-0. *European Edition*. Pearson Education.
- Mallat, N. (2007). 'Exploring consumer adoption of mobile payments—a qualitative study'. *The Journal of Strategic Information Systems*, 16(4), 413-432.
- Marketing Pilgrim, (2012) 'INFOGRAPHIC: The Evolution of Mobile Phones As Marketing Tools', Available at: <http://www.marketingpilgrim.com/2012/09/infographic-the-evolution-of-mobile-phones-as-marketing-tools.html>, [Accessed: 3rd June, 2013]
- Mattson, B E., and. Dubinsky, A. J (1987). 'Shopping patterns: an exploration of some situational determinants', *Psychology & Marketing* 4.1 (1987): 47-62.

- McCrindle, M., & Wolfinger, E. (2011). 'Generations Defined.' *Ethos*, 18(1), 8.
- McKnight, H. D., Choudhury, V., & Kacmar, C. (2002). 'The impact of initial consumer trust on intentions to transact with a web site: a trust building model., *The Journal of Strategic Information Systems*, 11(3), 297-323.
- Megdadi, Y.A.A. and Nusair, T.T. (2011), 'Shopping consumer attitudes toward mobile marketing: a case study among Jordanian users', *International Journal of Marketing Studies*, Vol. 3 No. 2, pp. 53-63.
- Merisavo, M., Vesanen, J. Arponen, A. Kajalo, S. & Raulas M. (2006), 'The Effectiveness of Targeted Mobile Advertising in Selling Mobile Services: An Empirical Study,' *International Journal of Mobile Communications*, 4 (2), 119-127.
- Meteor, (2013) 'Available Plans', Available at: <https://store.meteor.ie/bill-pay-mobile-phone-plans>, [Accessed: 23rd July]
- Mobile Marketing Association (2006) 'MMA Annual Mobile Marketing Guide: Recognizing Leadership & Innovation', Available at: <http://mmaglobal.com/modules/wfsection/article.php?articleid=685>, [Accessed: 17th July, 2013]
- Mobile Marketing Association (2008), 'Mobile Marketing Industry Glossary'. Denver, Mobile Marketing Association, [Online], www.mmaglobal.com/glossary.pdf , [Accessed June 3rd 2013]
- Mobile Marketing Association (2012) 'xAd Mobile-Local Performance Stats Q2 2012', *Mobile Marketing Association*, Available at: <http://www.mmaglobal.com/research/xad-mobile-local-performance-stats-q2-2012> [Accessed: 23rd July, 2013]
- Mobile Pronto, (2013) 'The History of SMS Text Messaging', Available at: <http://www.mobilepronto.org/en-us/the-history-of-sms.html>, [Accessed: 3rd July, 2013]
- Moody, D. (2002). 'Empirical research methods.' Retrieved 11/08/2013 from www.idi.ntnu.no/~ekaterip/dif8916/Empirical%20Research%20Methods%20Outline.pdf

Moreau, P.C., D.R. Lehmann, and A.B. Markman, 'Entrenched Knowledge Structures and Consumer Response to New Products', *Journal of Marketing Research*, Vol. 38, No. 1: 14-30, 2001.

Mukaka, M.M, (2012) ' Statistics Corner: A guide to appropriate use of correlation coefficient in medical research', *Malawi Medical Journal*, 24(3): 69-71, (September 2012)

Murphy (2012), 'Mobile Rich Media Grows Up', Adfonic & Mobile Marketing Magazine, White Paper, Available at: http://adfonic.com/wp-content/uploads/2012/03/Adfonic_Whitepaper_FINAL_updated-21.03.12.pdf, [Accessed June 3rd 2013]

Mutchler, L. A., Shim, J. P., & Ormond, D. (2011). 'Exploratory study on users' behavior: smartphone usage'. *AMCIS 2011 Proceedings-All Submissions*.

Nunnally, J. (1978), 'Psychometric Theory', McGraw-Hill, New York, NY.

Ojala, T., Kruger, F., Kostakos, V., & Valkama, V. (2012). 'Two field trials on the efficiency of unsolicited Bluetooth proximity marketing'. In *Proceedings of the 11th International Conference on Mobile and Ubiquitous Multimedia* (p. 38). ACM.

Okazaki, S. (2005). 'New perspectives on m-commerce research'. *Journal of Electronic Commerce Research*, 6(3), 160-164.

Orr, G. (2003). 'Diffusion of innovations', by Everett Rogers (1995). Retrieved January, 21, 2005.

Our Mobile Planet, (2013) 'Our Mobile Planet: Questions about The Consumer?', *Think with Google*, Available at: http://www.thinkwithgoogle.com/mobileplanet/en/graph/?active=country&country=ie&wave=2013&age=all&gender=all&chart_type=, [Accessed: 5th June, 2013]

Pagani, M. (2007). 'A vicarious innovativeness scale for 3G mobile services: integrating the domain specific innovativeness scale with psychological and rational indicators'. *Technology Analysis & Strategic Management*, 19(6), 709-728.

Park, Y., & Chen, J. V. (2007). 'Acceptance and adoption of the innovative use of smartphone'. *Industrial Management & Data Systems*, 107(9), 1349-1365.

Pedrozo, S. & Wilska, T.-A. (2004) 'Mobile phones and young people's consumer identities: a comparison study between Finland and Brazil'. *Proceedings of Digital Generation: Children, Youth and Media*. London: Institute of Education, University of London, 26–29 July.

Peppers, D., Rogers, M. and Dorf B. (1999), 'Is Your Company Ready for One-to-One Marketing?' *Harvard Business Review*, January-February, pp. 151-160

Persaud, A. & Azhar, I. (2012), 'Innovative mobile marketing via smartphones: Are consumers ready?', *Marketing Intelligence & Planning*, Vol. 30 Iss: 4, pp.418 – 443

Petruzzellis, L. (2007). 'Mobile phone choice: technology versus marketing. The brand effect in the Italian market', *European Journal of marketing*, 44(5), 610-634.

Pitney Bowes, (2012) 'Getting Ahead of the Emerging QR Code Marketing Trend', A Pitney Bowes Report into Current Levels of QR Code Usage Across Europe and the US, *Pitney Bowes White Paper*, Available at: <http://s3.amazonaws.com/pb-web/pdf/smb/pitney-bowes-2012-qr-codes-use-us-europe-report.pdf>, [Accessed: 21st July, 2013]

Portio Research (2012), 'Mobile Messaging Futures', Analysis and Growth Forecasts for Mobile Messaging Markets Worldwide: 6th edition, Available from: http://www.portioresearch.com/media/1676/MMF12-16_brochure_Feb12.pdf, [Accessed: July 21st, 2013]

Pura, M. (2005). 'Linking perceived value and loyalty in location-based mobile services'. *Managing Service Quality*, 15(6), 509-538.

PWC, (2012) 'Marketing Goes Local', Location-Based marketing provides solutions to technology's disruption of product placement, promotion and pricing, *PWC White Paper*, Available at: http://www.pwc.com/en_CA/ca/entertainment-media/publications/pwc-marketing-goes-local-2012-08-20-en.pdf, [Accessed: 12th August, 2013]

Ramsden, A. (2008). 'The use of QR codes in Education: A getting started guide for academics'.

Red C, (2012), 'Connecting the World: Mobile and Social Media Trends', *Worldwide Independent Network of Market Research*.

- Rettie, R., & Brum, M. (2001). 'M-commerce: The Role of SMS text messages'. In *the Proceedings of the fourth biennial International Conference on telecommunications and Information Markets (COTIM 2001)*, Karlsruhe, Germany.
- Roach, G., Byrom, J. and Lehman, K. (2008) 'Consumer Perceptions of Mobile Phone Marketing: Recent Evidence from Australia.' University of Tasmania
- Rogers, E. (1995), 'Diffusion of Innovations', 4th ed., The Free Press, New York, NY.
- Rohm, A. J., & Sultan, F. (2006), 'An exploratory cross-market study of mobile marketing Acceptance'. *International Journal of Mobile Marketing*, 1(1), 4–12.
- Rouillard, J. (2008). 'Contextual QR codes. In *Computing in the Global Information Technology*', 2008. ICCGI'08. The Third International Multi-Conference on (pp. 50-55). IEEE.
- S. Karnouskos & F. Fokus (2004). 'Mobile Payment: a journey through existing procedures and standardization initiatives', IEEE Communications Surveys and Tutorials. 6(4) 44-66.
- Saunders, M., Lewis, P., Thornhill, A., & Wilson, J. (2012). 'Business Research Methods'. *Financial Times, Prentice Hall: London*.
- Scharl, Dickinger, A., A. & Murphy, J. (2005), 'Diffusion and success factors of mobile marketing', *Electronic Commerce Research and Applications*, Vol. 4 No. 2, pp. 159-73
- Shankar, V., & Balasubramanian, S. (2009). 'Mobile marketing: a synthesis and prognosis'. *Journal of Interactive Marketing*, 23(2), 118-129.
- Shankar, V., Venkatesh, A., Hofacker, C., & Naik, P. (2010). 'Mobile marketing in the retailing environment: current insights and future research avenues'. *Journal of Interactive Marketing*, 24(2), 111-120.
- Sheehan, K. B. (2001). 'E-mail survey response rates': A review. *Journal of Computer-Mediated Communication*, 6(2), 0-0.
- Sheehan, K. B., & Hoy, M. G. (2000). 'Dimensions of privacy concern among online consumers'. *Journal of Public Policy & Marketing*, 62-73.

- Sheth, J. N. (1968). 'Risk-reduction processes in repetitive consumer behavior'. *Journal of Marketing Research*, 307-310.
- Smart Insights, (2013) 'Mobile Marketing Statistics 2013', Statistics on mobile usage and adoption to inform your mobile marketing strategy', *Smart Insights White Paper*, Available at: <http://www.smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/>, [Accessed: 14th July, 2013]
- Solomon, S. (2011), 'Going Mobile? Smartphone Marketing Just Makes Sense', *Mark Health Serv*, 31(4): 28-9
- Sproull, N. D. (2004). 'Handbook of research methods: A guide for practitioners and Students in the social sciences' (3rd Ed.). New Jersey: The Scarecrow Press.
- Sullivan, E. (2010), 'Marketing App-titude', *Marketing News*, 44, 3, p. 06, Business Source Complete, EBSCOhost.
- Sultan, F. and Rohm, A. 'The coming era of "Brand in the hand" marketing.' *MIT Sloan Management review* (2005): pp. 83-89.
- Sykes, A. (1993). 'An introduction to regression analysis'. Law School, Uni
- Tähtinen, J. & Salo, J. (2004), 'Special features of Mobile Advertising and their Utilization'. *Proceedings of the 33rd EMAC Conference*, 18-22.5.2004 (CD), Murcia. Spain, 5 pages.
- Tan, F. B., & Sutherland, P. (2004). 'Online consumer trust: a multi-dimensional model.' *Journal of Electronic Commerce in Organizations (JECO)*, 2(3), 40-58.
- Tavakol M, Dennick, R.(2011) 'Making sense of Cronbach's alpha'. *Int Jour Med Ed*. 2011;2:53–55.
- Ting, S.L., Kwok, S.K., Tsang, A.H.C., & Lee, W.B. (2011). 'Critical elements and lessons learnt from the implementation of an RFID-enabled healthcare management system in a medical organization', *Journal of Medical Systems*, 35(4), 657-669.
- Tornatzky, L.G., & K. J. Klein, (1982) 'Innovation Characteristics and Innovation Adoption – Implementation: A Meta-Analysis of Findings', *IEEE Transactions of Engineering Management*, Vol. EM-29, No1, Available at:

http://www.management.wharton.upenn.edu/klein/documents/Tornatzky_Klein_1982.pdf, [Accessed: 4th July, 2013]

Tsang, M., S. Ho, & T. Liang. (2004), 'Consumer Attitudes toward Mobile Advertising: An Empirical Study', *International Journal of Electronic Commerce* 8, 3:65–78.

Varnali, K., & Toker, A. (2010). 'Mobile marketing research: The-state-of-the-art' *International Journal of Information Management*, 30(2), 144-151.

Walonick, D. S. (1997). '*Survival statistics*'. Minneapolis, MN: StatPac Inc.versity of Chicago.

Weatherhead, R. (2011), 'Mobile Marketing: Evolution not Revolution', E-consultancy, Available at:<http://econsultancy.com/ie/blog/7188-mobile-marketing-evolution-not-revolution>, [Accessed June 22nd 2013]

Webster, F. E., Jr. (1992) 'The Changing Role of Marketing in the Corporation' *Journal of Marketing* Vol. 56 No. 4, pp. 1-17.

Weidauer, J (2011), 'Incorporating mobile and QR codes into marketing strategy', *Display & Design Ideas*, 23, 3, p. 36, Business Source Complete, EBSCOhost

Williams, K. C., & Page, R. A. (2011). 'Marketing to the generations'. *Journal of Behavioral Studies in Business*, 5(1), 1-17.

Wilson, S. (2010), 'The mobile university: From the library to the campus', *Reference Services Review*, Vol. 38 No. 2, pp. 214-232.

Wirtz, J., & Ehret, M. (2013). 'Service-based Business Models: Transforming Businesses, Industries and Economies. *Serving Customers: Global Services Marketing Perspectives*, by Raymond P. Fisk, Rebekah Russell-Bennett, and Lloyd C. Harris (eds.), 28-46.

Woodruff, R. B. (1997). 'Customer value: the next source for competitive advantage'. *Journal of the academy of marketing science*, 25(2), 139-153.

Xu, H., Dinev, T., Smith, H.J., and Hart, P. 2011. 'Information Privacy Concerns: Linking Individual Perceptions with Institutional Privacy Assurances,' *Journal of the Association for Information Systems* (12:12), pp 798-824.

Xu, H., Teo, H. H., & Wang, H. (2003). 'Foundations of SMS commerce success: lessons from SMS messaging and co-opetition'. In *System Sciences, 2003. Proceedings of the 36th Annual Hawaii International Conference on* (pp. 10-pp). IEEE.

Y & R, (2011) 'Marketing to Gen X and Gen Y', Available at: <http://www.yr.com/articles/marketing-gen-x-and-gen-y>, [Accessed: 18th August, 2013]

Zeithaml, V. A. (1988). 'Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence.' *The Journal of Marketing*, 2-22.

Zhang, J. & Mao, E. (2008), 'Understanding the Acceptance of Mobile SMS Advertising among Young Chinese Consumers', *Psychology & Marketing*, Vol. 25, No. 8, pp. 787-805.

Zoller, E., Housen, V.L., & Matthews, J. (2001), 'Wireless Internet business models: Global perspective', regional focus. *OVUM 2001 Report*, pp. 1-64.

Bibliography

Baker, M. J., & Hart, S. J. (Eds.). (2008). *The marketing book*. Routledge.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications, Incorporated.

Graziano, Anthony M.; Raulin, Michael L.

Haig, M. (2002). *Mobile marketing: The message revolution*. Buy now from Kogan Page.

Kotler, P. (2009). *Marketing management*. Pearson Education India.

New York, NY, US: HarperCollins College Publishers. (1993). xviii 446 pp.

Research methods: A process of inquiry (2nd ed.).

Appendices

Appendix 1

Survey Instrument Used in Study (Adapted from Persaud & Azhar, 2012)

Question 1 – What category below includes your age?

- 18-24 years
- 25-34 years
- 35-44 years
- 45 years +

Question 2 – What is your gender?

- Male
- Female

Question 3 – What is the highest level of education you have completed?

- Leaving Certificate or Lower
- Undergraduate Degree
- Master's Degree, Doctorate or Professional Qualifications

Question 4 – What is your employment status?

- Unemployed
- Student
- Employed

Question 5 – What type of mobile phone do you use?

- Feature/Classic
- Smartphone

Question 6 – How often do you change your mobile phone?

- Every year
- Every two years
- Every three years

Question 7 – How often do you use your mobile to connect to the internet? (Weekly basis)

- Never
- 1-10 times
- 11 times or more

Question 8 – How many times do you download content from the internet using your mobile phone? (Weekly basis)

- Never

- 1-5 times
- 6 times or more

Question 9 – How many text messages do you send/receive every day?

- No messages
- 1-10 messages
- 11-20 messages
- 21 messages or more

Question 10 – What are the top functions of a mobile phone do you use most frequently? (Rank from 1 being most frequent to 5 being least frequent?)

- Making phone calls
- Utilising apps
- Taking pictures
- Browsing the internet
- Text messaging

Question 11 – What are the number of ads that you would like to receive on your phone on a daily basis?

- None
- 1-2 ads
- 3-4 ads
- 5 ads +

Question 12 – What are the number of ads that you would like to receive on your mobile phone on a daily basis if you are given a monetary incentive?

- None
- 1-2 ads
- 3-4 ads
- 5 ads +

Question 13 – Up to what amount would you be comfortable making a purchase through your mobile phone?

- Would not make any purchases through my mobile phone
- €1 - €50
- €50 - €100
- €100 - €500
- €500 +

All Questions below are measured on a 5 point Likert Scale with 1 being Strongly Disagree and 5 being Strongly Agree

- Question 14 – I often receive marketing messages and promotions on my mobile phone
- Question 15 – I see a benefit in receiving marketing messages and promotions on my mobile phone
- Question 16 – I would like to receive ads via text messages and other means on my mobile phone
- Question 17 – I would respond to ads that I receive on my mobile phone if they are appropriate to my needs
- Question 18 – I would participate in product surveys sent to my mobile phone
- Question 19 – I would respond to a coupon offer for a product or service received on my mobile phone
- Question 20 – I would respond to a web offer received on my mobile phone while browsing the internet
- Question 21 – Marketing messages received on my mobile phone helps me make better shopping decisions
- Question 22 – Marketing messages received on my mobile phone helps reduce the time it takes me to search for products and services
- Question 23 – Marketing messages received on my mobile phone helps me to improve my shopping efficiency especially if I am in a new city
- Question 24 – Marketing messages received on my mobile phone saves me money
- Question 25 – Marketing messages received on my mobile phone is a waste of time
- Question 26 – Marketing messages received on my mobile phone annoys me
- Question 27 – Marketing messages received on my mobile would increase my phone costs
- Question 28 – Mobile marketing does not fit with my lifestyle
- Question 29 – Mobile marketing does not fit my idea of shopping
- Question 30 – I would feel more comfortable with mobile marketing if my permission was obtained before receiving marketing offers
- Question 31 – I would feel more comfortable marketing if I knew the marketer/company
- Question 32- I would like to download content via Bluetooth when entering a shopping centre/retail outlet
- Question 33 – I would like to be included in location based marketing
- Question 34 – Government regulation of mobile marketing is a concern to me
- Question 35 – Regulation is necessary for a healthy mobile marketing environment

Appendix 2

(I). Kruskal Wallis Test and Mann Whitney U-Test Results

Demographic Variable	Question	Result
Age	Q37. Regulation is necessary for a healthy mobile marketing environment	($z = -2.278$, $p = 0.23$)
Gender	Q15. I see a benefit in receiving marketing messages and promotions	($z = -2.252$, $p = .003$)
	Q16. I would like to receive ads via text messages and other means on my phone	($z = -3.225$, $p = .001$)
	Q17. I would respond to ads if they are appropriate to my needs	($z = -2.135$, $p = .033$)
	Q18. I would participate in product surveys sent to my mobile phone	($z = -2.730$, $p = .006$)
	Q20. I would respond to a web offer received on my mobile phone while browsing the internet	($z = -3.306$, $p = .001$)
	Q21. Marketing messages received on my mobile phone helps me make better shopping decisions	($z = -2.758$, $p = .010$)
	Q22. Marketing messages received on my mobile phone helps to reduce the time it takes me to search for products and services	($z = -3.723$, $p = .000$)
	Q23. Marketing messages received on my mobile phone helps to improve my shopping efficiency especially if I am in a hurry or in a new city	($z = -3.029$, $p = .002$)
	Q24. Marketing messages received on my mobile phone saves me money	($z = -2.874$, $p = .004$)
	Q25. Marketing messages received on my mobile phone is a waste of time	($z = -3.021$, $p = .003$)
	Q26. Marketing messages received on my mobile phone annoys me	($z = -2.464$, $p = .014$)

	Q28. Mobile marketing does not fit with my lifestyle	($z = -2.935$, $p = .003$)
	Q29. Mobile marketing does not fit my idea of shopping	($z = -2.524$, $p = .012$)
	Q33. I would like to be included in location-based marketing (e.g. discount voucher or code sent to your mobile phone while you are near that particular store)	($z = -2.435$, $p = .015$)
Education	Q19. I would respond to a coupon offer for a product or service received on my mobile phone	($z = -2.242$, $p = .025$)
Occupation	Q.34 Government regulation of mobile marketing is important	($H(1) = 3.901$, $p = .048$)
	Q35. Regulation is necessary for a healthy mobile marketing environment	($H(1) = 4.547$, $p = .033$)

(II) Mann Whitney Test – Age (Significant Results)

Ranks				
	Which category below includes your age?	N	Mean Rank	Sum of Ranks
	Total	116		
Regulation	25 years old and younger	74	63.45	4695.00
	Over 25 years	42	49.79	2091.00
	Total	116		

(III). Mann Whitney Test – Gender (Significant Results)

	Ranks			
	What is your gender?	N	Mean Rank	Sum of Ranks
I see a benefit in receiving marketing messages and promotions (e.g. ads, coupons, offers, etc..) on my mobile phone	Male	67	50.93	3412.50
	Female	49	68.85	3373.50
	Total	116		
I would like to receive ads via text messages and other means on my mobile phone	Male	67	50.37	3375.00
	Female	49	69.61	3411.00
	Total	116		
I would respond to ads that I receive on my mobile phone only if they are appropriate to my needs	Male	67	52.99	3550.50
	Female	49	66.03	3235.50
	Total	116		
I would participate in product surveys sent to my mobile phone	Male	67	51.50	3450.50
	Female	49	68.07	3335.50
	Total	116		
I would respond to a coupon offer for a product or service received on my mobile phone	Male	67	53.59	3590.50
	Female	49	65.21	3195.50
	Total	116		
I would respond to a web offer received on my mobile phone while browsing the internet	Male	67	50.01	3351.00
	Female	49	70.10	3435.00
	Total	116		
Marketing messages received on my mobile phone helps me make better shopping decisions	Male	67	52.01	3484.50
	Female	49	67.38	3301.50
	Total	116		
Marketing messages received on my mobile phone helps to reduce the time it takes me to search for products and services	Male	67	49.13	3292.00
	Female	49	71.31	3494.00
	Total	116		
Marketing messages received on my mobile phone helps to improve my shopping efficiency especially if I am in a hurry or in a new city	Male	67	50.80	3403.50
	Female	49	69.03	3382.50
	Total	116		
Marketing messages received on my mobile phone saves me money	Male	67	51.18	3429.00
	Female	49	68.51	3357.00
	Total	116		
Marketing messages received on my mobile phone is a waste of time	Male	67	66.32	4443.50
	Female	49	47.81	2342.50
	Total	116		
Marketing messages received on my mobile phone annoys me	Male	67	64.79	4341.00
	Female	49	49.90	2445.00
	Total	116		

Mobile marketing does not fit with my lifestyle	Male	67	66.07	4427.00
	Female	49	48.14	2359.00
	Total	116		
Mobile marketing does not fit my idea of shopping	Male	67	64.92	4349.50
	Female	49	49.72	2436.50
	Total	116		
I would like to be included in location-based marketing (e.g. discount voucher or code sent to your mobile phone while you are near that particular store)	Male	67	52.32	3505.50
	Female	49	66.95	3280.50
	Total	116		

(IV). Kruskal Wallis results for Education (Significant Variables)

Ranks			
	What is the highest level of education you have completed?	N	Mean Rank
	Total	116	
Mobile marketing does not fit with my lifestyle	Leaving Certificate or Lower	20	71.50
	Undergraduate	46	60.89
	Master's Degree, Doctorate or Professional Qualifications	50	51.10
	Total	116	

(V). Kruskal Wallis Test results for Occupation (Significant Variables)

Ranks			
	What is your employment status?	N	Mean Rank
I would like to use mobile apps to enhance my experience of a company/service/product	Unemployed	10	50.20
	Employed	56	60.67
	Student	50	57.73
	Total	116	
Government regulation of mobile marketing is a concern to me	Unemployed	10	58.00
	Employed	56	64.99
	Student	50	51.33
	Total	116	
Regulation	Unemployed	10	46.55
	Employed	56	65.38
	Student	50	53.18
	Total	116	