



# **The value of data gathering through gamification by a mobile application**

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By signing the present document, I confirm and agree that I have read RU's ethics code of conduct and fully understand the consequences of violating these rules in regards of my thesis.

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## **Abstract**

This thesis was conducted in order to analyze the Icelandic grocery retail market in terms of new technological advantages of data gathering of personal information in a mobile application through the means of mobile marketing. Two studies were conducted in order to understand how those technological advantages can potentially change a buying behavior. Study 1 consisted of a research which was built upon in-depth interviews that were conducted in line with ethnographic research methods. These interviews were intended to investigate opinions and attitudes from four individuals that work for four different companies in the Icelandic marketplace. Study 2 was based on a single subject experiment in a form of a lottery game through a mobile application, using gamification. The aim was to affect the buying behavior of grocery retailing application users through an intervention sent to their smartphones via the mobile application Strimillinn. Results showed that the lottery game had an effect on users buying behavior, as the preferred product used in the experiment, increased in both sales value and sales volume. After conducting those two studies, it is clear that data gathering through mobile devices can be very beneficial for companies in order to personalize each message that is sent out to consumers, based on their needs and preferences.

*Keywords:* Mobile marketing, data gathering, mobile application, retailing, buying behavior, gamification, in-depth interviews

## Ágrip

Tilgangur þessarar ritgerðar var að rannsaka íslenska matvörumarkaðinn í tengslum við nýjungar í tækniþróun, eins og til að mynda gagnaöflun persónuupplýsinga í gegnum snjallsímaforrit með því móti að nýta sér snjallsímamarkaðssetningu. Tvær rannsóknir voru framkvæmdar til öðlast þekkingu á því hvernig tækninýjungar í tengslum við snjallsíma getur hugsanlega haft áhrif á kauphegðun einstaklinga. Rannsókn 1 sneri að vinnslu djúpvíðtala til að afla þekkingu frá ýmsum aðilum af íslenska markaðnum sem allir höfðu mismunandi skoðanir og álit á þáttum eins og gagnaöflun persónuupplýsinga, snjallsímaforrit og smásölumarkaðnum. Rannsókn 2 sneri hins vegar að því að gerð var tilraun með einliðasniði sem gekk út á það að fá einstaklinga til að taka þátt í leik í gegnum snjallsímaforritið Strimillinn. Markmiðið var að hafa áhrif kauphegðun einstaklinga sem tilheyrðu hópi virkra notenda snjallsímaforrits með söluhvata í formi leiks sem sendur var í snjallsíma þeirra í gegnum snjallsímaforritið Strimillinn, þar sem notast var við fræði leikjavæðingar. Helstu niðurstöður rannsókna 2 sýndu fram á að leikurinn hafði áhrif á kauphegðun ofangreindra notenda með þeim hætti að bæði söluverðmæti og sölumagn fyrirfram ákveðinnar vöru jókst. Eftir að framkvæmd beggja rannsóknanna lauk, var það ljóst að öflun gagna um einstaklinga, einna helst þá í tengslum við kauphegðun þeirra, getur verið virðisaukandi fyrir fyrirtæki til þess að geta persónusniðið skilaboð sem send eru til neytenda, byggt á þeirra þörfum og væntingum.

*Lykilorð:* Markaðssetning snjallsíma, gagnaöflun, snjallsímaforrit, smásala, kauphegðun, leikjavæðing

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Reykjavík, May 17, 2016

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# 1 Introduction

The landscape of marketing is ever changing, but somewhat never as much as in recent years due to the revolution in modern technology, referring to the adoption of mobile devices in marketing activities. With this new technology, consumers are given the power to choose what to watch, listen to, read, search and even shop, whenever and wherever they want to. This results as a challenging task for the modern day marketer, but also, creates an opportunity for him to learn about its' company's consumers based on their behavior in the mobile devices. This knowledge about consumers also provides an opportunity for companies to influence their consumers in order to persuade them into buying a predetermined item, based on their needs and wants. This new landscape of marketing is due the increase in mobile marketing adopted into companies marketing strategies.

One major driver in the growth of mobile marketing is due to the rising popularity of the usage of smartphones and how they have become a key factor in the fast growing evolution that mobile marketing technology has been facing in recent years (Persaud & Azhar, 2012; Ryan, 2014). With this growing popularity of smartphones, reaching 4.5 billion users worldwide in 2014 (Hofacker *et al.*, 2015), the same has happened with mobile applications. As mobile applications have expanded in terms of popularity and are considered to be rather pervasive, mobile devices have developed into a platform to respond to various applications available on the market (Blair, 2016; Yan *et al.*, 2013). These findings indicate that mobile devices are an important factor to reach the majority of today's consumers (Hofacker *et al.*, 2015). One of the factors that mobile applications can provide its developers is the amount of data that companies can gather about each individual that downloads the application. As for today, big data is revolutionizing almost every industry, as companies rely more heavily on data gathering and analytics (Essany, 2014; Kerschberg, 2014b). By gathering big data, companies have the opportunity to analyze it for insights that can potentially lead to better decision making within the company as well as making strategies business moves ("Big data: What it is and why it matters", n.d.).

At the same time as mobile applications are considered one of the perfect tools for companies to gather information about individuals in the market area, it is also a tool that needs to be handled with care. Individuals often express concerns about the amount of data that companies gather about them and studies have showed that mobile application users are often surprised when they have been informed that the mobile applications they use are driven on

data collection and information (Shklovski *et al.*, 2014). This is often due to the fact that users do not realize the purpose of the data gathering, hence, resulting in the lack of education of the purpose.

One of the marketing sectors that have been affected by these previously mentioned technological factors is the grocery retail market. Due to technological evolution, the retail environment has gone through changes over the past few years, resulting in a new landscape for marketers in that particular sector. Companies, specialists and researchers are increasingly adopting to experiments in the grocery retail sector with the potential of mapping out consumer's shopping behavior. Various studies have been conducted in terms of in-store experiments, where the focus is on investigating consumers shopping habits and behavior (Grewal, Levy & Kumar, 2009; Sigurdsson, Saevarsson & Foxall, 2009; Sigurdsson, Larsen & Gunnarsson, 2014; Gaur & Fisher, 2005; Mattila & Wirtz, 2001). However, few studies on the grocery retail market have been conducted with a mobile application in forefront, resulting in the relative new-come of mobile application in marketing strategies. Nonetheless, mobile applications are increasingly growing as a special tool to use, and mostly because of gamification (Hofacker *et al.*, 2015). Gamification is becoming a growing trend among marketing specialists around the world, due to the fact that by adding the element of a game around a marketing activity, the potential is that it can create more interest from the consumer and he could therefore be more willing to pay attention (Grybs, 2014).

This thesis aims at answering the following research questions with the help of two different studies that were conducted alongside a summary of essential theoretical reviews:

- RQ1: How is the development of modern marketing strategies through mobile devices?
- RQ2: How can data gathering be beneficial for companies today?
- RQ3: Is it possible to influence a predetermined group of consumers in order to increase the consumption of a certain product, through a gamification in a mobile application?
- RQ4: Is it possible to use this same gamification to affect consumption of the substitute product of the previous mentioned product in RQ3?

The purpose of this thesis was to learn about how mobile marketing can impact Icelandic consumers as well as how data gathered by a mobile application can be beneficial for companies. Study 1 consisted of a research which built upon in-depth interviews that were conducted in line with ethnographic research methods intended to investigate opinions and attitudes from four individuals that work for four different companies in the Icelandic

marketplace. Those individuals that were interviewed were Eva Björk Guðmundsdóttir at Meniga, Guðmundur Magnason at Heimkaup, Alma Tryggvadóttir at Persónuvernd and Sigurður Reynaldsson at Hagar. Study 1 aimed at obtaining answers two of the research questions: RQ1 and RQ2.

Study 2 consisted of an experiment conducted by the researchers themselves, where they submerged into the grocery retail market to see if there could be a possibility to get mobile application users to modify their buying behavior by receiving an invitation to a lottery game included in a particular mobile application. The products that were chosen for the experiment were Pepsi and Coca-Cola as they are considered one of the most known substitute products that are often compared together, having Pepsi and Pepsi Max in the forefront of the study and use Coca-Cola as a comparison. This study was conducted in a collaboration with a start-up project called Strimillinn, which is a mobile application. The service that Strimillinn provides helps users to monitor their shopping and could therefore lead to potentially better, or moreover, smarter decision making as an everyday consumer (Skulason, 2015). The experiment aimed at answering the latter two research questions: RQ3 and RQ4.

The purpose of this study is thus to contribute to the knowledge of usage of mobile marketing and mobile applications in marketing strategies and how the Icelandic retail market is coping with various technological advantages compared to international retail markets.

## **2 Company collaboration: Strimillinn**

### ***2.1 Introduction of Strimillinn***

This thesis was worked in a collaboration with a start-up project called Strimillinn, originated from the software company Loftfarið, which was established by Hugli Þórðarson, Lee Roy Tipton and Sindri Bergmann (Loftfarið, n.d.).

The idea of Strimillinn emerged in the year 2008, regarding collection of shop receipts in order to gather information about prices of different products and more importantly, to record price changes in retailing (Hlynsdottir, 2015). The service that Strimillinn provides helps users to monitor their shopping and could therefore lead to potentially better, or moreover smarter, decision making for the everyday consumer (Skulason, 2015). In the beginning of 2015, the project Strimillinn was entered into the Golden Egg, a business plan competition for entrepreneurs held by Icelandic Startups. The Golden Egg is a platform for new projects to get recognition and possible funding in order to better develop the project's idea ("The Golden Egg", n.d.). Strimillinn won the 2015 Golden Egg business plan competition, resulting in the launch of a beta version for the service in the summer 2015 (Skulason, 2015).

### ***2.2 The functionality of the service***

Strimillinn consists of both a free mobile application as well as a desktop version in form of a webpage. The mobile application is available for both Android through Google Play and iPhone through App Store ("Strimillinn", n.d.a). The mobile application and the desktop version are linked together in order to provide the user a platform to organize and categorize information that are gathered from store receipts which are then compiled into one big data base (Hlynsdottir, 2015; "Strimillinn", n.d.a). The mobile application provides a service for the user where he can scan receipts from retail grocery stores and other relevant retail stores. When the user has then scanned the receipt, it goes into Strimillinn database where it is automatically analyzed. This database consists of both prices and product range that are offered in various retail stores around Iceland. Then, the user can utilize the service that Strimillinn provides to compare their purchase to other user's purchases as well as to optimize for the best price and offers available, or as the phrase is, "mastering the shopping basket" (Skulason, 2015; "Strimillinn", n.d.b). The mobile application and the desktop version helps the user to oversee all his shopping behavior, along with giving access to the price database provided by the information gathered from other users.

What is thought to be so reliable in terms of this mobile application is the fact that all the information that is logged into the database, cannot be traced back to a certain individual, therefore maintaining its' anonymity and protecting individual's private information. Every information that exists in the database is coded and can therefore not be provided to any third party for utilization on individual's buying behavior.

### ***2.3 Current and future development of Strimillinn***

The newest update of the mobile application has a feature that shows the user special offers provided by each retail store. That information is gathered by scanning advertising booklets from the main retail stores in Iceland. This feature gives the user a quick and easy access to all offers available, and at the same time, helping him to make smarter purchase decisions (Strimillinn, 2016). Other pending updates of the mobile application are for example the user's shopping cart optimization, comparison between retail stores and at last, the ability to find the most favorable products based on the user's shopping history ("Strimillinn", n.d.c).

In addition to this, Strimillinn is not only thinking about the individual, but also how they can help retailers and brand owners. Strimillinn plans to provide both retailers and brands with relevant information on consumer's purchasing behavior in order for them to offer users relevant offers, suited for them and received at the right place and time (Skulason, 2015).

### ***2.4 What does Strimillinn provide to the Icelandic marketplace?***

Although many similar mobile applications to Strimillinn exists on various other markets, especially the U.S. market, no similar one does exist that can be used in Iceland. Among those many applications, CartCrunch and Flyerbug are two examples of those that do exist. Both their ideology is similar to Strimillinn, as all those three applications have one common goal in mind; help users to optimize their shopping basket. CartCrunch usage consists of snapping a photo of user's grocery receipt in the mobile application in order to build up a shopping list as well as discover real time prices for this list. Another function refers to that the user can get customized coupons and deals sent to his mobile application to help him better optimize the shopping basket (CartCrunch, 2015). Flyerbug is similar to CartCrunch in terms of this "optimizing your shopping basket" ideology. Flyerbug runs on data gathering from savvy customers and is powered by the users itself, as Flyerbug's database collects updates from the users as well as from local retailers, both large and small, and categorizes the products and prices for easy use service (FlyerbugInc, 2012). Flyerbug is therefore very similar to

Strimillinn, as its' function consists of grocery price comparison that is powered by how many products and prices users log in to the mobile application.

Combining modern technology, like a mobile application, to a simple thing like handling your groceries, is something that is becoming more valid to individuals. This indicates that there is an urge for applications like these, and CartCrunch and Flyerbug are not the only ones available on international markets. The amount that exists is even more than one can imagine. Thus, the existence of an application like this is important in order for the Icelandic market to hold on to the increased growth of modern technology and to function in this digital economy that societies all around the world are facing (Leetaru, 2016).

### **3 Mobile marketing, mobile applications and data gathering**

This chapter will give an overview of all the critical factors that concern mobile marketing. It will include discussion about the development of mobile marketing, how the market has changed with the appearance of smartphones as well as the development of mobile applications and their usage. In addition, this chapter will be used to go over the advantages for companies of using mobile marketing in their marketing strategies. Aspects concerning the Icelandic market will be reviewed later on in chapter 4, concerning Study 1, where in-depth interviews were taken with four specialists from four different Icelandic companies. This chapter will therefore only focus on aspects concerning the international market and how it has been developing.

#### ***3.1 Introduction to mobile marketing***

Mobile marketing has been growing in recent years, becoming a more used marketing communication tool that is available on international markets and its' scope has grown substantially since its' early stages in development ("Mobile Marketing", 2016; Shankar & Balasubramanian, 2009). The reason for that is partly due to the vast growing demand for mobile devices. i.e. smartphones resulting in a rising surge and ever growing importance of use for mobile marketing worldwide (Shankar & Balasubramanian, 2009). In 2013, the U.S. market reached a significant milestone where the mobile first surpassed desktop in regards to digital media engagement (comScore, 2014). Shankar *et al.* (2016) described mobile devices being ubiquitous as they state that mobile adoption is a concept that is reaching the heights of becoming a global factor.

The Mobile Marketing Association (MMA, 2009) defines mobile marketing as, "a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through and with any mobile device or network." Others interpret its definition more comprehensively. For example, Shankar & Balasubramanian (2009) defined mobile marketing as, "the two-way or multi-way communication and promotion of an offer between a firm and its customers using a mobile medium, device, or technology." By only looking at those two definitions, one can see that even though they are supposed to explain the same thing, they are in fact very much different. The using of word combinations such as "two-way" and "multi-way", better grasps the basic elements of mobile marketing, that is, this interactive relationship that companies and consumers can form between the two.



### 3.2 The development of mobile marketing

The development of mobile marketing has been changing and more people look at it now as a specific type of marketing, where companies can reach out to consumers to both connect and interact with them (Ryan, 2014). Before the year 2008, studies on mobile marketing were considered to be nascent. As the years pass by, numerous of studies have been conducted involving various subjects and focus points. In the early stages of mobile marketing, and somewhat still today, many marketers mainly thought about mobile applications when referring to mobile marketing (“3 ways mobile marketing”, 2013). A mobile application has been defined by Yan *et al.* (2013) as “a software package that can be installed and executed in mobile devices”. Mobile applications provide an opportunity to reach a deep engagement with the application’s user (Marketo, 2015). Nonetheless, it is not solely mobile applications that are important when it comes to analyzing mobile marketing and its effectiveness. Today, multiple factors are related to mobile marketing, in addition to mobile applications, many of them are described as the key characteristics of mobile marketing. Table 1 reveals listings of those key characteristics, along with definitions.

Table 1:

*Key characteristics of mobile marketing*

Key characteristic	Definition
<i>Personalization</i>	“Personalization is about building customer loyalty by building a meaningful one-to-one relationship; by understanding the needs of each individual and helping satisfy a goal that efficiently and knowledgeably addresses each individual’s need in a given context” (Riecken, 2000, p 26).
<i>Immediacy</i>	“Immediacy is a measure of content timeliness – whether users can act on it right now – such as a search result highlighting directions or the timeliness of a service like a pushed notification of a deal nearby” (Wise, 2013).
<i>Ubiquity</i>	“Consumers can be contacted at any time and any location. The mobility of the mobile phone benefits consumers in that they can research products or special offers on the go with something that fits into their pockets” (Li, 2015).

<i>Mobile trust</i>	“One’s willingness to accept vulnerability while interacting with another through a mobile device given extant expectations regarding intentions and behavior of the other party” (Giovannini <i>et al.</i> , 2015).
<i>Interactivity</i>	“A state experienced by a user during his or her interaction with a mobile phone” (Lee, Moon, Kim & Yi, 2015).
<i>Location-specificity</i>	“Many mobile devices, have GPS capabilities to identify their physical location. This property provides marketers the opportunity to target location-sensitive promotional offers to mobile device users” (Shankar & Balasubramanian, 2009).

Multiple studies have been conducted in terms of those key characteristics mentioned in table 1. What seems to harmonize between various studies and papers is its’ focus on the consumer and how he is acting in terms of this technological changes that are occurring, as well as the company itself. In addition to that, data collection and the need for companies to know and understand the consumers is factor that rises above others.

### **3.2.1 Personalization**

Regarding studies associated with previously mentioned key characteristics, some addressed factors in terms of personalization, as it is considered one of the major factors for why companies should use mobile marketing in their market strategies (Carrol *et al.*, 2007; Xu, 2006). By doing so, companies are utilizing their marketing messages to potentially reach individuals in order to build a bridge between them and to create a one-to-one relationship with them (Venkatesh, 2015). Zmuda (2014) stated that “marketers cite personalization as most important to marketing in coming years”, according to study conducted by Adobe in 2014, and thus, ranking higher than factors like big-data, social and mobile. Sharma *et al.* (2008) identified that mobile devices present great opportunities to provide context, immediacy and personalization. All of those factors make mobile devices a strong advertising medium. This leads to significant advantage over other mediums such as print, radio and television, as mobile devices today are playing increasingly important role in individual’s life (Shklovski *et al.*, 2014) as it is becoming a certain everyday accessory to many individuals.

Banerjee and Yancey (2010) referred to the growing potential of delivering personalized message that can be advertised in on the term “anytime, anywhere”, and how mobile marketing has mobilized the electronic advertising (e.g. e-commerce) we know today. They emphasized on the potential that by going on this marketing route, companies are acquiring the ability to reach the on-the-move consumers. Pelau and Zegreanu (2010) pointed out that progressively more companies are implementing some kind of mobile strategies and elements into their communicational mix in order to reach more productively to consumers. They stated that if companies gather information about consumer’s needs and preferences, they are in better shape of sending out personalized messages for each individual, thus, actual message that are at the same time relevant for the consumer (Pelau & Zegreanu, 2010).

### ***3.2.2 Immediacy***

Immediacy is one factor that many relate to mobile marketing as mobile devices create the opportunity to target a consumer directly through his mobile device, as consumers are becoming more present-centered (Essany, 2013). A study conducted by Pielot, Church and de Oliveira (2014) examined notifications from mobile applications in smartphones along with examining subjective perceptions of those particular notifications. The study indicated that notifications are essential to withhold the immediacy; as otherwise smartphone users would have to look at their phone more frequently. Others have also mentioned notifications in terms of immediacy, as notification requests occur immediately after the launch of the mobile application (Marketo, 2015).

### ***3.2.3 Ubiquity and location-specificity***

Ubiquity is a concept that has become somewhat of a buzz regarding mobile marketing. Some say that mobile marketing is no longer a channel that can be considered a substitute channel for marketing strategies, but it should share the equal attention as one of the traditionally used marketing strategies. Marketers have pointed out various factors that indicate that mobile are becoming ubiquitous such as mobility, data and that consumers are expecting mobile-specific content (Roy, 2016). Okazaki and Mendez (2013) used the term perceived ubiquity and conducted a study reviewing benefits of it that derived from factors such as continuity, immediacy, portability and search-ability. Leaders in mobile marketing have pointed out that the ubiquity of mobile services and marketing is changing the paradigm of retail marketing, which will be further discussed in chapter 4 (Shankar & Balasubramanian, 2009; Shankar, Venkatesh, Hofacker & Naik, 2010).

### **3.2.4 Trust**

Persaud and Azhar (2012) investigated the willingness of consumers to accept marketing messages via smartphones, thus, analyzing the trust factor among consumers in terms of mobile marketing. Yan *et al.* (2013) concurred with previous mentioned research, as they explored the impact that trust information visualization can have on mobile application usage in individual's smartphones. Kang, Shin and Tam (2015) examined the impact that behavioral loyalty to a brand had on smartphone users' in terms of privacy management for both personalized and non-personalized mobile websites, thus, examining user's trust to mobile devices.

### **3.2.5 Interactivity**

Studies referring to interactivity tend to focus on concepts such as "living in an always-on society", as individuals have increased preferences to interact anytime and anywhere (Lee, 2005). Atkinson (2013) referred to the company's advantages of using mobile devices as a way to reach potential customers with messages that are both interactive and compelling. In terms of the customer, mobile devices can give him or her greater access to useful and relevant information based on their demand, since the customer has more control over what information he or she wants to see (Atkinson, 2013). Other interpret interactivity in terms of the perceived vision of it, hence, perceived interactivity. Researches have conceptualize perceived interactivity in terms of various dimensions. Lee *et al.* (2015) theorized interactivity that it consisted of four dimensions; perceived control, perceived responsiveness, nonverbal information, perceived personalization.

### **3.2.6 Location-specificity**

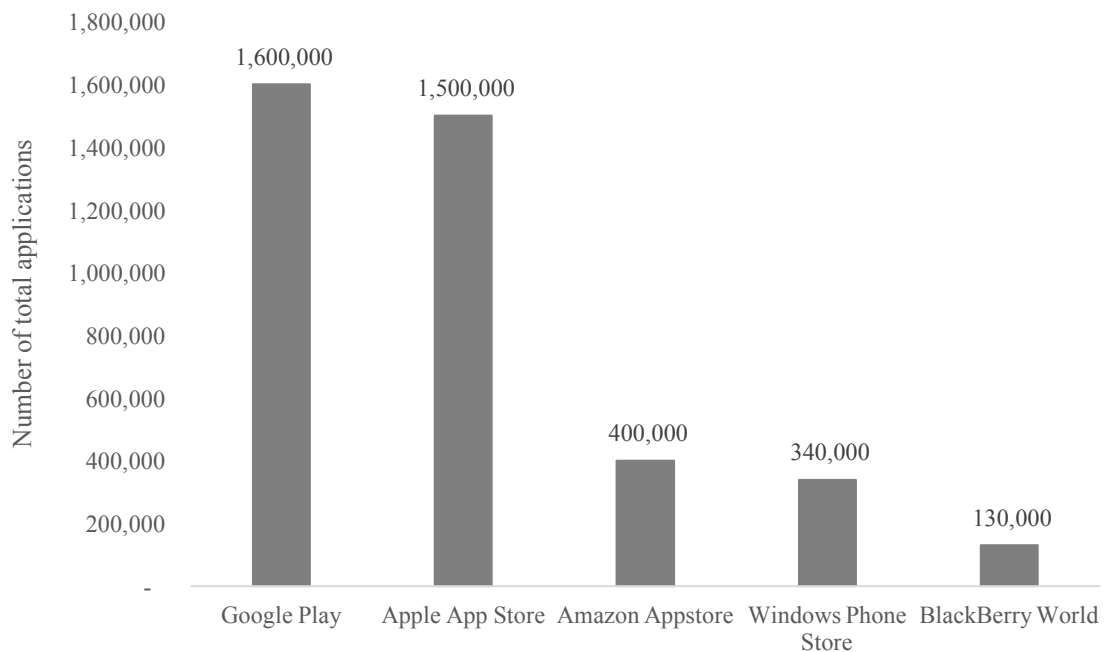
Relating to the concept of the location-specificity, the term is often referred to when discussing factors such as mobile advertising messages, as they are often based on user's location. Thus, the term often used in these matters is "location-based advertising". For companies to be able to send out relevant messages suited for each individual, based on their location for example, is a growing factor that many seek out to obtain. MacKenzie, Meyer and Noble (2013) pointed out that retailers should create offers and marketing messages that are targeted and localized, referring to the fact that these messages should be customized by location of the user's smartphone. Many companies are using mobile applications to advertise their product or service, and using an in-app advertising is one of them, as they can potentially generate high engagement rates from the users (Smith, 2016).

All of those factors above are exactly why so many companies seek to use some sort of mobile strategies into their marketing strategy. It lies within the fact to obtain the ability of being able to send out relevant message to relevant individuals, instead of following the path of mass marketing with the hope to catch someone's attention. McCorkle (2015), the CEO of Marketing Cloud at Salesforce, has even gone so far as defining this as "Marketing's Law of One", where he describes "how we are quickly moving from mass media to personalized media", as segments are refined until they reach one. This does not only apply for a company, but for a consumer as well. Mobile applications provide the opportunity for a user to control what he wants to see, how he builds the service that mobile applications provide around his needs and wants, as well as managing his personalization. The user can decide for himself how deeply he interacts and how immediate he wants to receive messages. Nonetheless, one can think about the term that the more personalization a user wants, the more data he needs to provide to the application, in order for the company to fully personalize the marketing message suited for the user only. This leads us to more specific analysis of the advantages of the usage of mobile marketing, focusing on mobile applications and data gathering.

### ***3.3 Mobile applications***

One major driver in the growth of mobile marketing is due to the rising popularity of the usage of smartphones and how they have become another key factor in the fast growing evolution that mobile marketing technology has been facing in recent years (Persaud & Azhar, 2012; Ryan, 2014). With the growing popularity of smartphones, which counted for 4.5 billion in the year 2014 (Hofacker *et al.*, 2015), the same has happened with mobile applications. As mobile applications have expanded in terms of popularity and are considered to be rather pervasive, mobile devices have developed into a certain platform in order to respond to numerous applications available on the market (Blair, 2016; Yan et al, 2013).

Applications like this can vary from simple ones as a web browser to access the Internet to well defined street map visualization like Google Maps. The modern mobile application environment we know today all started with the launching of the Apple iPhone in 2007 (Holbrook, 2011; Statista, 2016). Since then, the scope of mobile applications on the market have grown tremendously ever since the launching of App Store from Apple in 2008, where they only counted for 800 in total. Figure 1 below shows the numerous of different mobile applications developed by various creators, and according to Statista (2016), more than 3.9 million apps were available in five different app stores around the world in July 2015.



*Figure 1: Number of total applications available at online mobile application stores*

As the number of existed mobile applications increases, their usage and functions are becoming more and more advanced. Some mobile applications go even that far that users can actually shop with the mobile application alone. A concept in South Korea, called a “mobile supermarket shopping” was established around the year 2011. This concept refers to a network of shops called Home Plus, which was developed by Tesco. In the rapid life of typical South Koreans, who are often busy at home, can now shop their groceries in virtual Tesco shops located at the train stations. There, individuals can just walk alongside virtual shelf spaces and scan a bar code located at each product with their mobile device and therefore building up their shopping basket in a short period of time. When the purchase is completed, their shopping basket is sent straight to their doorsteps (“Tesco builds virtual shops for Korean commuters”, 2011). This clearly states how precise mobile marketing is becoming, and how the convenience of using mobile applications is constantly growing. A report conducted by comScore (2014), stated that in the year 2014, the U.S. market reached a major milestone called “the app majority”, which relates to the fact that now the majority of all digital media consumed in the U.S. occurs on mobile applications.

Regarding studies existing on discussion of mobile applications, limited do exist on its’ usage, functions and advantages. The reason for that is primarily due to its’ new come on the market (i.e. only from the year of 2007), therefore being a relatively young concept in the field

of researches within marketing. But as the years pass by, the potential of using mobile applications is increasing and becoming more promising due to consumers' increased adoption to latest technology (Lane, 2010). This can potentially indicate that the number of studies within this topic will continue to grow.

Looking at the topics that exists in that field of area, researches tend to focus on a parameter such as trust among customers using the apps, like Yan *et al.* (2013) examined. What grabbed Yan's attention as well as his fellow researchers was the level of trust customers can have towards mobile applications due to the fact that so many exists on market, as has been mentioned earlier. By competing at a competitive market like the mobile market is, the trustworthiness of the mobile application is considered as one of the factors for the likelihood of success of the application (Yan *et al.*, 2013). Their definition of user trust in a mobile application is "the user's belief in the application being able to fulfill the expected task." This trust of users is not just something that is built in instant when the app is installed, because user trust in mobile applications is a high notional estimation of each individual that is built over time and development of usage of the application (Yan *et al.*, 2013). This trust factor relates to the inner function of mobile applications, that is, the data gathering, which is one of the major cornerstones on how mobile applications can help us and is considered one of the main advantages, if used right.

### ***3.4 How can mobile applications help companies and consumers?***

One of the factors that mobile applications can provide its developers is the amount of data that companies can gather about each individual that downloads the application. As for today, big data is revolutionizing almost every industry, as companies rely more heavily on data gathering and analytics (Essany, 2014; Kerschberg, 2014b). Big data is a term that is today commonly used today among marketers, and is increasing everyday. Big data has been described as a "large volume of data – both structured and unstructured – that inundates a business on a day-to-day basis" ("Big data: What it is and why it matters", n.d.). By gathering big data, companies have the opportunity to analyze it for insights that can potentially lead to better decision making within the company as well as making strategic business moves ("Big data: What it is and why it matters", n.d.). It is then here where mobile applications are the ideal tool to use. Different mobile applications gather different kind of information, depending on what business the application refers to. The depth and individualization of the information also vary, since some applications only require limited amount of information like an e-mail address. Others, require

more of the user, like applications from banks, tele-communication companies or from advanced software companies. The data itself also varies, from being either demographic information to other, such as behavioral factors or activities (Marrs, 2016). Those applications that require more information, gather heavier data about individuals that are more personal and private. For those applications that require those kind of data, have to rely on the quality of the application as well as the trustworthiness to be able to get users to download them (Khalid *et al.*, 2015).

### **3.4.1 Data gathering**

Data gathering is considered to be the most critical factor in the case of mobile applications – in fact in marketing in general – and no successful company should avoid tracking their performance and base their decision making on data (Agrawal, 2016). Without data gathering and analytics on those data, the hard work of developing a mobile application is drawn down to nothing. If companies that develop mobile applications do not intend to use it as a data gathering instrument, the existence of it is superfluous. Ben Kerschberg (2014a) wrote about how successful mobile applications development relies heavily on both data and analytics, and that those three (i.e. mobile applications, data and analytics) cannot be separated. Kerschberg concluded that mobile applications fueled by data and analytics provide great opportunities to companies. These applications have been referred to as “Analytics-powered mobile applications” (Kerschberg, 2014a), those who transmit data and do it in real time.

At the same time as mobile applications are considered one of the perfect tools for marketers and companies to gather information about individuals in the market area, it is at the same time a tool that needs to be handled with care. Studies have found out that mobile application users are more often surprised when they have been informed that the mobile applications they use are driven on data collection and information about the users (Shklovski *et al.*, 2014). However, they seem to still use those mobile applications in spite of the awareness of the data collection, and often feel like they have to accept in order to follow technological trends that are occurring (Shklovski *et al.*, 2014). Research conducted by Lin *et al.*, (2012) indicated some concerning factors from smartphone users. There, users expressed their feelings by mentioning that they often felt violated when figuring out that the mobile application they were using accessed data and information about them without their knowledge.

A survey, called “The Eurobarometer survey”, was conducted in March 2015 by the European Commission. This survey analyzed the perception of 28,000 European citizens from



28 different countries of the protection of data gathering of personal information (European Union, 2015). One of the findings from this survey showed that 55% of the participants were somewhat concerned about the recording of their activities in their smartphones, adding that about 67% were concerned that they did not have full control over their information that they provided online (European Union, 2015). Looking at these figures alone, one can see that the trust factor is somewhat lacking, since two-thirds of 28,000 participants felt a bit insecure regarding their personal information online. Nonetheless, the survey also revealed that although so many have somewhat concerns of this ever growing data gathering, 71% still said that providing these personal data information is becoming an unavoidable factor in today's modern life. In addition, in 16 out of 28 countries that participated in the study, over 50% of those respondents said that they were concerned about the recording of their daily activities in mobile applications (European Union, 2015).

Overviewing the development all together, one can see that the growth in mobile marketing is largely due to the increase in data gathering, especially on international markets such as the U.S. market as well as the European market. But, one can think about what is causing this growing fear and decreased trust in data gathering overseas. If it is happening outside Iceland, can it be likely that the same is occurring there? Interviews that were taken with two Icelandic individuals that work in a business environment that evolves around data gathering, both mentioned that the reason for this is likely to be in terms of lack of education. What is meant by lack of education, it refers to the fact that users of mobile applications do not fully understand the reason for why companies are in fact gathering information about them. Detailed analysis on these interviews, as well as for two others, can be found in chapter 5 below. Having said that, mobile application developers have to keep in mind the importance of making the users aware of the data gathering that is occurring and to educate the users why this data is in the first place being gathered.

## 4 Retailing

This chapter will give an overview of some of the critical factors that concern the retail environment. It will include discussion about the development and the evolution of retail marketing and how the international retail environment has been coping with the growing technology that occurs on international markets will be addressed. Aspects concerning the Icelandic market will be reviewed later on in chapter 4, concerning Study 1. This chapter here will therefore only focus on aspects concerning the international market and how it has been developing.

### *4.1 What is happening in retailing today?*

Due to technological evolution, the retail environment has gone through changes over the past few years, where experiments are taking place, as grocery retail stores have been somewhat fully automated. In a small town in Sweden, a small convenience store has been equipped with unique app enabled operations. The customers need to download a mobile application and register to be able to unlock the doors of the store and scan the products they want to buy. When the customer has finished his purchase the mobile application sends out an invoice in order to charge the customer for his purchase. The only human factor involved is when the shelves need to be re-stocked (Prindle, 2016). Other retail stores like Wal-Mart and Tesco, are establishing some kind of automation inside their stores, where the cash registers for example are becoming unmanned (Singh, 2014).

Researches concerning grocery retailing have focused on the in-store shopping behavior and how it is possible to change it. Sigurdsson, Saevarsson, and Foxall (2009) conducted an experiment where a selected product was rearranged inside the store in order to investigate the effects on the consumers' purchasing decisions. Results showed that the product placement in store shelf had impact on consumer's purchase decision. Another research conducted by Sigurdsson, Larsen and Gunnarsson (2014) also focused on product placement as well as in-store advertisement in the grocery retail sector at store checkouts. Results suggested an effective means of altering the arrangements of product variability at store checkouts, as this relocation had impact on sales when replacing unhealthy food choices for healthy ones. Others researches of the same matter have been conducted over the years, focusing on factors such as impact of prices as well as using factors such as scent and music to influence consumer's behavior inside the store (Gaur & Fisher, 2005; Mattila & Wirtz, 2001).

In order to compete effectively in today's competitive environment, retailers have to focus on the overall shopping experience generated through every touch point of the retailers' business, as Grewal, Levy and Kumar (2009) mentioned in their study. Those touch points include every possibility for the consumer to interact with the retailer about its' products or services. Today, there are greater emphasis that the consumer sees a clear value in establishing relationship with a retailer in order to gain higher customer satisfaction and mutual loyalty.

The adoption of more precise interaction between a consumer and a retailer has made it possible for retailers to better manage their performance, where decisions are based on information gathered from consumer's shopping behavior. As a consequence, the market power has been shifting from companies and retailers to the consumer, who takes every advantage of new technology and chooses how, when and where to consume and respond to information sent from the retailer (Singh, 2014). Some of the important parts of company's value chain is its marketing channels and how they are utilized. The previous utilization of these marketing channels have often focused on the term "spray and pray", where companies and retailers put advertising on to traditional media like television, radio and newspapers and hope to reach the right segments. Those kind of marketing activities are not working to the same extent as before (Krafft *et al.*, 2015; Grewal, Levy & Kumar, 2009). Today, it is important for retailers to know their targeted customers in order to identify both their needs and preferences in ways to engage them in the most successful manner, otherwise facing the threats of being over-run by the competition. In order to do so, retailers must listen to their customers and establish some kind of communication with the consumer to interact with the retailer. As a subsequent, messages sent from the retailer to the consumers must be consistent and provide similar information (Singh, 2014). Finally, the retailer must give its' customers some kind of opportunity to interact and access information about products or services online provided in order to be responsive to every feedback. By doing so, the retailer can gather valuable information about its customers in order to reach other similar consumers in a desired segment (Grewal, Levy & Kumar, 2009).

#### ***4.1.1 Consumer's shopping behavior***

Due to the aftermath of the financial crisis in 2008, some consumers experienced loss in income and had to evaluate more on what and where they bought their products or services, and also how much they were willing to pay for them. From earlier recessions, marketers and company executives have been able to better predict and evaluate the changes in consumers shopping behavior (Hunneman, Verhoef, & Sloot, 2015). According to Flatters and Willmott, (2009)

recessions can be categorized into two different groups. Most recessions that have occurred in the 20<sup>th</sup> century were short and had short term changes on consumers' behavior, while in rare occasions, a recession could have catastrophically deep and long lasting effects. It is possible to categorize the 2008 financial crisis as a mixture of both types of recessions. In the financial crisis in 2008, the grocery retail sector did not suffer as much decline as other retail sectors. This is mainly because fast moving consumer goods, such as food and other necessities are considered to be essential for the consumers, resulting in changes in consumption. In that kind of environment consumers tend to search for some alternative products, which are for example sold in bulk at lower prices in various discount stores (Lamey, 2014). The uncertainty that occurs in such an economic environment has a great influence on both the consumer shopping behavior as well as every decision making that a retailer must take in order to survive. In such an environment, consumers search for value in every purchase decision they make where every decision is taken more carefully, better calculated and more deliberately. This results that every option is more valued and weighed by the consumer regarding potential needs, preference and functionality. (Flatters & Willmott, 2009; Grewal, Levy & Kumar, 2009).

Companies today must take into consideration various technological advantages regarding the increase usage of mobile devices and how it can benefit the company in order to enhance the in-store shopping behavior. For example, the use of various self-service technology like self-checkout registers and information screens with price scanners located on the shopping carts, are ways to influence and enhance the consumers' overall shopping experience (Verhoef *et al.*, 2009). Grocery retail stores on international level that have adopted to more technology and information orientation into their retail operations are for example Wal-Mart, Sainsbury and Metro AG, all of which are more than capable to contribute to the evolution of modern retailing (Singh, 2014).

## ***4.2 Growing demand in building relationship with consumers***

One of retailer's main objective is to be the consumers' top-of-mind brand, or the consumers' first choice, thus gaining a brand loyalty among its customers (Kokemuller, 2016). According to the American Marketing Association (2016), a brand can be defined as every distinguished features that identifies a product and differentiate it from other similar products on the market. The term brand loyalty can be defined in many different ways, but the essence is that a consumer has a favorite brand that he prefers to buy instead of other brands that provides similar products (American Marketing Association, 2016). Brand loyalty can therefore be

measured by the necessary impact needed to switch an individual from his or hers preferred brand to a different brand. Some behavior that could be categorized as brand loyalty could in fact be either repeated behavior that has formed into habits or just a buying behavior of convenience (Verplanken, 2006). Consumers that have formed some kind of in-store shopping habits, can have a positive impact on a brand in a competitive environment. When customers get more bound to their shopping habits, they often count on automatic thinking and do not take other shopping alternatives into consideration (Fazio *et al.*, 2000; Fujii *et al.*, 2001).

When creating brand loyalty, retailers must consider the roles of substitute products that can be described as remotely different product brands that are categorized in the same product range (Levis & Papageorgiou, 2007). In order for those products to be categorized as substitute products, an increase in sales of one product will reduce sales of another. To be more accurate, there would be a duality relationship between the sales of those two similar products over a common customer base (Levis & Papageorgiou, 2007).

A study conducted by Begoña and Casielles (2005) indicated that a consumer set himself a reference price which he used to compare similar products in the buying process before making a purchase. That helped the consumer to evaluate if the price of the product is acceptable or not. If the desired product has a higher price than the reference price, the consumer might experience a loss if he purchases that product. On the other hand, if the desired product has a lower price than the reference price, the consumer experiences a gain which could even stimulate a more desire to buy that product if the experienced gain is substantial, and maybe even more than if the reference price would be on par with the price of the desired product.

#### **4.2.1 Substitute products**

Many individuals think about Coca-Cola and Pepsi when referring to substitute products. The two giants on the soft-drinks market, Coca-Cola and Pepsi have been competing as substitute products since the end of 19<sup>th</sup> century, when both types were created (“Our history”, 2015; “The Coca-Cola Company”, 2011). That is the reason for why those two particular products are feasible for further explanation and analysis.

Although Coca-Cola and Pepsi are almost alike in many ways, consumers often express a strong behavioral preference for either Coca-Cola or Pepsi (McClure *et al.*, 2004). Consumers are considered to be more favorable to a product if features and other characteristics supports the reason to like it. On the other hand, if features and other characteristics do not

support the reason to like the product, then the consumer would not favor that particular product (Yamada *et al.*, 2014).

Both Coca-Cola and Pepsi possess a special characteristic that can be considered as a wealth of cultural meaning. The behavioral preference for Coca-Cola or Pepsi can therefore be modified through a cultural message which is combined with relevant content that can shape the consumer's perception about the product. Those cultural impacts on the consumer's behavioral preferences, sometimes dominates what the consumer chooses to consume. There are some suggestions that cultural messages have the ability to influence the decision making process in the favor of a certain product over another. Therefore, the recognition of relevant cultural attributes like the brand elements which are related to memories, contribute to the behavioral preference (McClure *et al.*, 2004).

McClure *et al.* (2004) also mentioned the never ending battle between Coca-Cola and Pepsi, where many researches and taste-tests have been conducted in order to find out if consumers could tell the difference between the two brands. In those tests, there were some indications that consumers often acted differently if the tests were conducted blindly. Consumers often preferred different brand than they thought they were tasting, compared to when the brand were visible to them. This difference is often described as the Pepsi paradox, where consumers are inclined to prefer Coca-Cola over Pepsi, when the brands are visible, while the preference tends to reverse when the brands are not visible.

### ***4.3 Ways to interact with potential customers***

Begoña and Casielles (2005) described that many retailers use sales promotions in order to increase awareness of their products. They also had some discussions about how the major purpose of sales promotion tactics to influence the buying behavior process directly. The term sales promotion can be considered as series of marketing stimulations introduced periodically over time, which aims at supporting advertising actions intended to affect purchasing of a chosen product. In order for sales promotion to have the desired effect, it is necessary to apply it when the consumer does not expect it. If the consumer obtains the ability to predict when a sales promotion will be put in motion, it could damage the desired results which the promotion was originally intended. If a consumer can predict a sales promotion, he could ultimately link the promotion to the brand or product and damage it in the long run, for example decrease the value of the brand since it could be permanently attached to the product (Begoña & Casielles, 2005).

Hui *et al.* (2013) suggested that a sales promotion that is sent through a mobile device can alter the pre-arranged shopping route that the consumer had set himself, prior of entering the store and increase the unplanned spending that is taking place inside the store. The suggestion is that the reason is mainly because consumers are custom to a certain route that they take, every time they enter the store, making a large part of the store un-explored by the consumer. By implementing a sales promotion to the consumers' mobile device it is possible to divert him to the parts of the store where the retailer wants the consumer to go to (Hui *et al.*, 2013).

A study conducted by Khajehzadeh, Oppewal and Tojib (2015) proposed that consumers respond differently to sales promotions that are sent to their mobile devices. The response to the sales promotion is affected by both the consumers' location, and also by the clear benefit that the consumer is offered intended to alter the shopping behavior. The main conclusion in that study was that in order for the sales promotion to have the desired effect, it relied on how good the offer was in order to alter the pre-arranged shopping route.

#### ***4.3.1 How mobile devices can be beneficial in marketing activities***

Due to common usage and possession of smartphones among modern consumers, marketers today are given possibilities to engage and learn about the behavior and preferences of their targeted individuals. Every new smartphone is equipped with the capability of GPS tracking system which has mainly been used to help the user to find locations for his own benefit, like for example products and services (Shugan, 2004).

The GPS technology (*The Global Positioning System*) that is used in smartphones, is called Assisted GPS, or A-GPS for short. The A-GPS enhances and aids the regular GPS, using mobile phone networks in order to calculate faster a more accurate position of the user (GPS, 2014; Zandbergen & Barbeau, 2011). The possibilities for marketers consist of finding a way to utilize the GPS tracking system integrated in the smartphone to the company's advantage. Normally, consumers step into the retailers' area by entering the store, but with the wide usage of mobile devices, it gives the retailer an opportunity to enter the consumer's personal environment. This opportunity can be obtained through the location services included in most mobile devices (Shankar *et al.*, 2010). Using the GPS tracking system in the user's smartphone is somewhat a tricky pathway to follow, especially if the user does not know that he is being monitored, then there would be the issues of the right of personal privacy (Shugan, 2004; Sindradottir, 2016). For example, if a retailer develops his own mobile application, the user of the application would be made aware that whenever he enters the retailers store, the GPS

tracking system would be activated in order to record and monitor the behavior inside the store, if the user accepts those the terms. To make the application more appealing so the consumer would want to download it into his smartphone, there would have to be some clear value for the consumer to set it up (Spaid & Flint, 2014). In-store shopping behavior information can be very valuable for a company. As an example of information gathered through an application that is linked through GPS tracking system could be the possibility to map out the whole store to figure out “hot” and “cold” sections inside the store which can help the retailer to position the products in prime locations where they will most likely be noticed by the consumer. Other possibility would be to link the mobile application to a loyalty card to be able to connect the time spent inside the store to the basket size of the consumer (Gustafson *et al.*, 2013).

Along with the widespread usage of mobile devices, consumers are often interested in learning new things and find new ways to entertain themselves. This previous mentioned technological advantages gives the consumer a marketing power which he can use to persuade the retailer to adjust to their different needs and lifestyle. This gives modern marketers a chance to engage with the consumer in a non-traditional and casual way. An example of that is to get the consumer to interact with the company through a game of some kind that would be applied through the mobile device (Grybs, 2014).

#### **4.3.2 Gamification**

Gamification is considered to be a fairly new topic in terms of research. Mainly because of that, researches on benefits regarding gamification that have been conducted to this day are somewhat based on hypothesis rather than confirmation of impact. Previous studies that have been conducted have failed to show clear evidence on efficiency compared to other research methods (Kim, 2015).

In a recent study conducted by Hofacker *et al.* (2016), they set forth a set of research questions regarding how mobile gamification is affecting marketing activities and how users are perceiving the game. To name a few, “RQ4: How does genre affect the marketing effectiveness of mobile gamification?”, they argue that different types of games may affect factors like consumer’s motivation and involvement of the game. Another one, “RQ5: How does reward structure affect the marketing effectiveness of mobile gamification?”. This suggests that the value for the consumer must be clear to maximize engagement and at the same time avoid consumer’s frustration and ultimately exit from the game. Regarding the visual effect of a game used in marketing, the following research question was put forward: “RQ9: How does visual perspective affect the marketing effectiveness of mobile gamification?” and



“RQ10: How does creative vision affect the marketing effectiveness of mobile marketing?”, it indicates that the appearance has a major impact on creating an engaging platform. All features and characteristics must be set forth in order to enhance the engagement in order to increase the effectiveness of the mobile gamification (Hofacker *et al.*, 2016).

The basic concept of the term gamification is when the consumer is engaged by a brand to use a certain product or a service, in exchange for a value or some useful attribute for the consumer. Gamification is becoming a growing trend among marketing specialists around the world, due to the fact that by adding the element of a game around a marketing campaign, it can create more interest from the user and he might be willing to pay more attention and invest more time into the campaign (Grybs, 2014). By making the product intended to use in various promotional games, relevant to the consumer, it can become a way to get the consumer interested and involved with the selected brand. It could also create excitement through a popular and accurately timely event that has been designed by the retailer. One possibility for marketers is to use gamification to build up a brand equity by examining the targeted audience's lifestyle, preferences, interests or needs, in order to make the prize of the game relevant to the participants (Belch & Belch, 2001).

As mentioned earlier, mobile devices have over 4.5 billion users worldwide in the year 2014. Those numbers suggest that the mobile phone is the fundamental point of entry in order to reach majority of the today's consumers, both regarding electronic content and also marketing contents through the means of gamification (Hofacker *et al.*, 2015). The modern consumer is seeking more value and interaction through mobile devices and applications, resulting in failures of traditional marketing activities, such as newspaper ads and television commercials. Gamification is a way to make the marketing activity more appealing to the consumer, in order for him to pay more attention and stay interested for a longer period of time (Grove, 2011). If the game is interesting and exciting for the consumer, he is also more willing to spread it among his friends, resulting in wider coverage of information about the brand and what it stands for (Grybs, 2014).

The gamification only works if the player is interested and willing to play, therefore gaining a wide understanding of the consumers' behavior and motivation is important in order to build up a successful gamified system, fit for various marketing activities (Zichermann & Cunningham, 2011). Those marketing activities executed through gamification has the potential to influence consumers' retailing outcomes, such as entertaining, speed up potential

repurchase, retain customers and can also influence in-store marketing engagements (Hofacker *et al.*, 2015).

There are some downsides regarding the use of gamification in marketing, like for example the possibility that the game itself becomes the main factor instead of the brand, resulting only in companies giving away prizes without any long term gain in sales or market share. Therefore, have many promotional experts and marketers question the effectiveness of such games (Belch & Belch, 2001). However, as long as consumers are responsive to that kind of marketing approach, modern day marketers will continue to target individuals through the means of gamification, and adapt it to ever changing marketing circumstances.

## **5 Thesis contribution**

This thesis will provide an addition to prior researches by combining some of the elements together, looking at factors such as how willing consumers are to pay attention to marketing through mobile devices and how well they trust this new up-coming mobile application and are willing to opt in. Since studies on the Icelandic market in terms of mobile marketing, the retail environment and data gathering is considered rather nascent, two studies were conducted in this thesis. Study 1 consists on in-depth interviews with relevant individuals on the Icelandic market in terms of data gathering, new technological advantages and the retail business. Study 2 is a case study about Strimillinn that consists of an experiment conducted in mobile application of Strimillinn regarding sales promotion of a lottery game. The intention of the lottery game is to analyze the value of the data that Strimillinn can provide with their database. However, further explanation on the case study will be explained in chapter 6 below. Since Strimillinn is a relative new comer on the Icelandic market, it is interesting to see if Icelandic mobile users are willing to opt-in to a sales promotion through Strimillinn application. By combining these two studies together in one thesis, provides better perspective on how the Icelandic market is coping with new technological changes and the increase of data gathering of personal identifying information.

In addition, a research like this has not yet been conducted on the Icelandic market, since marketing through mobile applications is thoroughly modern, resulting in few researches, or any for that matter.

## **6 Study 1: Interviews with relevant individuals on the Icelandic marketplace**

### **6.1 Method**

Looking at how both mobile and retail marketing have been developing on international markets, not much has been researched in terms of how the Icelandic market is coping with all of those prior mentioned changes that have been occurring. Examples of those changes are increased usage of data gathering, rising popularity of using mobile applications as a marketing tool and how technological advantages are shifting the retail market to a new platform. To be able to acquire some understanding of how the Icelandic market is prospering in terms of increases in usage of mobile marketing connected to the retail environment, researchers decided to interview some relevant individuals concerning factors like data gathering, mobile applications in marketing, increased emphasis on the technology and Internet and the evolution of the retail environment, for the Icelandic marketplace. All interviewees have different knowledge and experience regarding previously mentioned market in general, with connection to the retail environment as well as technological factors regarding mobile applications, the Internet in general and data gathering.

The intention of those interviews was first and foremost to review the current state of the Icelandic market in terms of new ways of marketing, as interviews provide the opportunity to dig deep into the subject that is being researched as well as gathering valuable information about it (Denzin & Lincoln, 2000; Shiu *et al.*, 2009). In addition, these interviews were used to get detailed insights on how marketing practices are developing in Iceland as well as getting the interviewees' aspects on how consumers are adapting to the ever growing technological changes in terms of mobile marketing, mobile applications and in retailing.

Study 1 was based on individual in-depth interviews, or so called semi-structured interviews (Esterberg, 2002). These in-depth interviews were conducted in line with ethnographic research methods (Sangasubana, 2011). The selected interview framework was an open-ended with a predetermined interview framework (Brinkmann & Kvale, 2015; Hennink *et al.*, 2011). This method was selected due to the fact that it is considered to be flexible as well as it is a convenient way to retrieve this idiosyncratic meaning that the interviewees put on their experience at each time as well as exploring the topic more openly (Esterberg, 2002).

### 6.1.1 Participants

Individuals that participated in the interviews were selected based on various reasons concerning the objective of this thesis. A total of four interviews were conducted and table 2 lists those individuals that were interviewed with details about their job title as well as a introduction to their company's operations and the reason for the interview. All of the interviewees have different aspects and perspectives concerning factors like mobile marketing, data gathering, the usage of personal information collected by data gathering and the retail environment and its' development. Two of the interviewees are working in the retail environment, one within a retail company that has a lot of history in regards to offline retailing, and the other one a dedicated online retailer. In spite of that, different perspectives were revealed when asked about how the Icelandic retail market is developing and how the future lies before it, as one interviewee was more focused on the traditional ways, but the other one believed stronger on factors relating to the future of the Internet. On the other hand, there were two interviewees that discussed factors concerning data gathering on personal identifying information, but still, two very different aspects concerning that. One interviewee works for a mobile application that operates on selling personal information to companies, and the other one was on the other half of the coin, with heavy focus on conserving personal privacy of individuals. Study 1 reveals interesting factors concerning those different perspectives and indicates how individuals see the same thing often differently, as the environment around them colors at some level their vision.

Table 2:

*Participants in Study 1*

Name	Job title and company	Company's main operations	Reason for interview
Eva Björk Guðmundsdóttir	Sales Manager at Meniga	A software company with its' aim to have positive influence on people's financial behavior and help with the household's finance	To get insights and vision about the ever growing technological changes that are occurring today and how data gathering companies are operating on the Icelandic market

Guðmundur Magnason	CEO at Heimkaup	Iceland biggest online store, providing the Icelandic market with the selection of a wide product range online	To understand Heimkaup's point of view of their business model relating to internet sales as well as getting information about their thoughts on the changes in marketing in terms of new technological ways to advertise and promote products or services
Alma Tryggvadóttir	Lawyer, Head of Audit and Security at Persónuvernd (e. The Data Protection Authority)	Independent government institution aimed to take care of supervision of practice of Act. no 77/2000*	To build up knowledge about factors concerning legality of data gathering of personal information as well as their perspective on changes in marketing
Sigurður Reynaldsson	CEO of Business Development at Hagar	The leading retailer on the Icelandic market with core activities in the grocery sector	To be able to get insight to the retail market and how changes in marketing has affected that market relating to new digital ways of marketing

*\*Act no. 77/2000 on The Protection of Privacy as regards the Processing of Personal Data*

The reason for why Eva Björk Guðmundsdóttir (denoted Eva) and Alma Tryggvadóttir (denoted Alma) were selected as interviewees was due to their relevancy to this thesis subject in terms of their working environment. Eva was selected as an interviewee mainly due to the fact that Meniga is one of the companies in Iceland that gather personal information about users in the everyday business and uses them to strengthen their business environment, same as Strimillinn does. Meniga's main operations consists of gathering financial information from users that opt into their service. Users can connect both their debit and credit cards to the software, which collects all transactions from the user and displays it in an easy and simple way. The downside of Meniga, is that the company cannot fully understand what lies behind every purchase that is logged into Meniga's database, as they can only see where the user shopped and how much he spent (Guðmundsdóttir, E. B., personal communication, April 11, 2016).

Alma was selected as an interviewee because researchers believed that it would be important to get insides to the other side, that is, in terms of the legal issues regarding data gathering of personal information. Guðmundur Magnason (denoted Guðmundur) and Sigurður Reynaldsson (denoted Sigurður) were selected as interviewees after researchers attended a meeting, held by IMARK (The Icelandic Marketing Association), which was called “Retail at crossroads”. At that meeting, Guðmundur was a lecturer, where he talked about the future of online stores and how the technology is slowly shifting the retail environment. Finnur Árnason, CEO of Hagar hf., was also a lecturer, and he talked about the retail environment in general but not necessarily in terms of technological changes. Nonetheless, researchers believed that getting both Heimkaup’s and Hagar’s perspective could be of good use.

### ***6.1.2 Situational factors for the study***

Researchers contacted those four individuals via separated emails during the period of March 31, 2016 to April 11, 2016. In the emails, these individuals were all introduced to this thesis objective and an invitation to participate by providing an acceptance to the researchers to interview them for an hour or so any day that suited those individuals. All the interviews took place at each interviewee’s company’s main office to create a comfortable atmosphere for both the interviewee as well as to the interview itself. The first interview was with Eva and it took place on April 11 at 2 pm at Meniga’s head office at Turninn, Kópavogi. The interview with Guðmundur was conducted on April 15 at 5 pm in a conference room at Heimkaup’s office at Smáratorg in Kópavogur. The last two interviews took place on April 18, the prior was with Alma at 10:30 am at Persónuvernd’s office in downtown Reykjavík, and the latter one at 2 pm with Sigurður at Hagar’s office in Smáralind.

### ***6.1.3 Execution***

Since it was decided to do an in-depth interview, researchers had with them in every interview a predetermined question list so that the interviews were relatively concise and that the researchers could use it to direct the dialogue through a specific path. Doing that is important and often recommended to have an order on the proceeding of the interview (Esterberg, 2002). The number of questions for each interview varied, ranging from 9 to 17 in total. The number of questions depended on how much the researchers thought to be sufficient enough to cover the required material for each and every interview.

All interviews were audio-recorded, with the permission of each interviewee, both on a desktop computer and on a smartphone to assure the accuracy of the recording. The average

time of the interviews was 56 minutes. All interviews were then copied verbally after the interviews itself and comments were documented in the meantime, i.e. pointers from each interview that researchers saw immediate use for.

Formal analysis of the data consisted of systematically reading over all of the four interviews to identify the main themes of each interviewee's narrative. Both initial coding and axial coding were used in the analysis (Saunders *et al.*, 2009). The first part of the coding was the usage of initial coding, which consists of going thoroughly over the text as a whole with an open mind and analyze it. Latter to that, overview of the text was conducted again, but now more precisely, looking at single paragraphs or lines at each time. (Ottarsdottir, 2013; Strauss & Corbin, 1998). Here, part of the text from the interviews are put under a specific headline or a keyword as the interviews are viewed more often. Specialists in grounded theory talk about trying to reach a specific saturation, which consists of seizing all relative factors that connects to the coding or specific viewpoints until all are reached (Ottarsdottir, 2013). The question lists were used in consideration to analyze which categories of themes to be selected. The text from the interviews was then viewed and important factors from each interview were noted on the margin. Those factors where then grouped together in categories, using axial coding, where they were assembled to both sections and sub-sections (Ottarsdottir, 2013; Saunders *et al.*, 2009). Table 3 summarizes the preferred key themes from the coding procedure.

Table 3:

*Themes from interviews in Study 1*

Theme	Description of theme
The retail environment	The evolution of the Icelandic retail market and its' comparison with international retail markets – How foreign companies are using marketing practices in retail – Icelandic marketplace in terms of increase technological practices – The buying behavior of consumers
Data gathering of personal information	Handling of personal information – Data gathering – Consumers' attitudes towards data gathering of personal information – The trust factor – Targeting the individual – Legality concerning data gathering
Value for the customer	The value for the customer in terms of data gathering in order to personalize marketing messages



New ways in marketing related to new technology	Using mobile devices for marketing – Using mobile applications for marketing – What are the trending new ways in marketing – Are other modern ways in marketing more feasible than others
Icelandic market vs. international markets	Is the Icelandic market any different from international markets – Is the Icelandic market coping with new technological changes

In order for the study to be both justified and reliable, researchers put forth the results in the most creditable way as possible. In terms of data analysis, researchers put emphasis on interpreting each interviewee's opinion and experience with each theme in mind. To increase the creditability of the analysis of the interview, direct quotas from the interviewees were used.

## 6.2 Results

This chapter identifies the results that were drawn up from the four interviews in Study 1, based on the previously mentioned themes identified in the prior chapter. The study aimed at answering RQ1 and RQ2 mentioned in chapter 1. This chapter will consist of analysis of each theme, where relative factors from each interview will be intertwined to the text as well as ideology and speculations from researchers. At the end of this chapter, a summarization of key findings will be revealed.

### 6.2.1 The retail environment

#### *The evolution of the Icelandic retail market*

Before the financial crisis in 2008, the evolution on the Icelandic retail market was on par with other markets that retailers in Iceland compare themselves with. Many of the owners and CEO's were young and ambitious in utilizing the technology to their advantage. But after the financial crisis, our interviewees all agreed that, the consumers' consumption changed, where consumers needed to reprioritize the family's whole consumption. It is just in the last two years, where there have been showing some signs of economic growth and that consumption is turning somewhat back to the prior state before the crisis. Sigurður described the situation on the Icelandic retail market like this:

After the financial crisis, and for the next five or six years after that, we at Hagar took the biggest hit in the part of the company that was not involved in the groceries sector. Consumers just stopped buying clothes and related merchandise, you can say that it

just crashed. When countries are hit with such economic crisis, people go home to their families and re-organize, since the money in the wallet has shrunk and people need to choose what to spend it on. [...] People went over their lists, and stuff that was nice to have like new clothes and shoes, just went of it. [...] But on the groceries market, the combination of food changed, people started to buy less expensive food, more simple maybe, where expensive food that Hagkaup used to sell, that had doubled in price, just out priced themselves off the market. So the overall consumption changed.<sup>1</sup>

In the aftermath of the crisis, the ownership of many retailers changed and were taken over by pension funds and other financial institutions. Those funds were not interested in taking part in everyday business, resulting in stagnation in the retail environment. Those retailers that were not taken over by funds did not feel the need to improve their business since the competition did not change their perspective, and just continued to do business the old fashioned way, that had worked before. Guðmundur described the aftermath of the financial crisis on the retail market like this:

All those big retailers had been taken over by the government or the pension funds, and everything, regarding evolution in retailing simply stopped. The new owners were not very aggressive [...] and had a big infrastructure all over the country. What are they going to do pushing some online store that is both expensive and cannibalizes the things they already have? [...] That is, in my opinion, the main reason why the evolution stopped, there was no one to educate the market, and no one had a good reason to do so.<sup>2</sup>

But consumers are now more conscious about what they spend their earnings on, resulting in more competition between retailers where they have to find ways to impress their potential customers. And that is the opportunity that Meniga jumped on, and introduced a new way to have an overview of the household's financial status. Meniga's software gave the everyday consumer a chance to have an overview of their whole spending, and gave them a platform to

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<sup>1</sup> Það má kannski segja að það sem við fundum mest fyrir í hrúninu og á síðustu fimm, sex árum var kannski aðallega sérvörulutinn, þar dróst mjög mikið saman sala í fatnaði og öllu því, má segja að eiginlega hrundi á Íslandi. Það má kannski segja að þegar lönd lenda í svona efnahagskreppu, þá fara menn heim til fjölskyldunnar og forgangsraða, þar sem peningarnir í veskinu minnka og þú þarft að velja í hvað þú ætlar að eyða peningnum. [...] Fólk svona fer yfir útgjaldalistann, sem þróast kannski þannig að fót og skór og svona dót sem er hlutir sem eru "nice to have", það hverfur útaf útgjaldalistanum. [...] Þannig að matvörulega séð, þá breyttist kannski samsetningin, þar sem menn fóru að kaupa ódýrari vörur, einfaldari mat kannski. Þannig að við fundum ekki eins fyrir því þar, nema þá kannski í finni vörum sem Hagkaup var að selja, því þegar gengið féll þá tvöfaldaðist allt í verði, og margar vörur prísuðu sig út. Þannig að neyslumynstrið breyttist þannig.

<sup>2</sup> Allir þessir stóru smásalar, komnir í eigu ríkisrekinnna banka, þrotabúa eða í eigu lífeyrissjóðanna, og allt sem snéri að þróun og nýsköpun einfaldlega hætti. Þarna ertu með eigendur sem eru ekkert sérlega framsæknir [...] en eiga sterka innviði út um allt land. Hvers vegna ættu þeir að fara úti einhverja vefverslun sem er bara dýr í þróun og étur að innan það sem þeir eru með. [...] Mín skoðun er sú að þetta sé ein aðal ástæðan fyrir því að við erum komin svona stutt. Það var enginn til að kenna markaðnum, og þessi passívu nýju eigendur höfðu enga ástæðu til þess að fara út í einhver ævintýri.

make informed decisions about future spending. It also gave companies some knowledge about their consumers and the market as a whole by buying service from Meniga, resulting in better decision making regarding marketing activities. Eva described some possibilities for retailers to utilize Meniga to their advantage:

For the last two years, we at Meniga have some of the main retailers in Iceland in subscription, where they can just log in and browse through information about the market. They are looking at turnovers, market share, customer base, and also how many days are there between store visits, compared to the competition. They, of course have the best figures about themselves, and are using them, I hope. I can never present the data as well as the company itself. But, they of course do not know the figures from the competition, but there are always some ways to find them out. Nevertheless, those data have about six-month delay on them, but can give some indications on how the market is behaving.<sup>3</sup>

#### *Icelandic retail market in comparison with international retail markets*

The Icelandic retail market is very small based on international scale. Interviewing Sigurður gave the researchers a new perspective on how small the Icelandic retail market really is.

The Icelandic market is so small on international scale. We are just like a small village in Denmark. Nevertheless, we have many stores, and it is somewhat like a miracle how far we have managed to succeed in building up-scale stores and done amazing things. [...] One of the main problems that we are facing is that big factories that make clothes, do not want to manufacture for Hagar, due to the small size of the orders. [...] The whole orders are sometimes done where the samples are made on few sewing machines, because it was too expensive to start the big machines. [...] Hagar, this big retailer in Iceland is like a small convenience store to those big international managers, that does not want to do business with us because we are so small.<sup>4</sup>

<sup>3</sup> Svo erum við eftir þessi 2 ár komin með helstu retail fyrirtæki landsins sem eru í áskrift og eru bara að logga sig inn og skoða. Og þau eru að skoða veltu, markaðshlutdeild, customer base, hvað liða margar dagar frá því að fólk kemur inn í mína búð miðað við hina búðina. Þannig það getur alltaf verið að bera sig saman við samkeppnina. Þau eiga náttúrulega bestu tölurnar um sjálfan sig og nota þær vonandi. Ég get aldrei sagt jafn vel frá og fyrirtækið sjálft. En, þau náttúrulega vita ekki samkeppnina, en það eru einhverjar leiðir til að komast að því. En það eru alltaf gögn sem sýna bara baksýnispegilinn og þú færð þau kannski með 6 mánaða delay.

<sup>4</sup> Menn fatta oft ekki bara hvað við erum þínulítill. Ísland er bara hérna eins og eitt lítið þorp í Danmörku. Hvað við erum margar búðir og menn finnst í raun kraftaverk hvað við höfum í raun náð miklum árangri í mörgu. [...] Eitt af vandmálunum sem við erum að glíma oft við er það að menn nenna ekki að framleiða fyrir okkur, eins og fatnaði. [...] oft var verið að búa til pantanirnar okkar í sýnishorna herberginu þeirra á bara nokkrum saumavélum af því að það tók því ekki að setja vélarnar í gang. [...] Við erum þarna, eins og fyrir þessa gæja eins og kaupmaðurinn á horninu, og í þeirri stöðu að margir nenni ekki að tala við okkur, þótt að við séum risinn á Íslandi, þá erum við samt svo ógeðslega lítil.

Hagar is the biggest retailer in Iceland with a big market share. According to Sigurður, all the success is mainly due to valuable business connections. He stated:

The success that we have managed to achieve and the business connections we have made are often just because we are from Iceland, they often just do it because we are fun to do business with and think we are entertaining and fun. Therefore, we have managed to create some powerful and valuable business connections, it is much more on those notes that we have succeeded. [...] We are in some collaboration with Tesco, [...] where there are 3.000 workers at their main office, compared to Bónus where there are six individuals that run the whole thing. That is often why they envy us because of the simplicity, since the other thing can become too complicated.<sup>5</sup>

Regarding the online stores, this is what Guðmundur had to say about the difference between the shopping behavior in Iceland compared to the countries that Iceland compares themselves with:

We are the only country in Europe that shops more on foreign online stores than with local online stores. [...] We are the only one, and we live on an island where everything needs to be flown or shipped in. And when you buy, you do not really know what the item is going to cost or when it will arrive. And if the item is faulted, you are in big trouble.<sup>6</sup>

#### *How foreign companies are using marketing practices in retail*

Many of the biggest retailers in the world, like Tesco and Costco, are using loyalty cards in order to know their customers, their preferences and buying behavior. This kind of information is crucial in order to stay ahead in the competition and getting bigger share of the wallet. Sigurður stated in terms of this:

I would say, marketing speaking, that this is one of the things that the Icelandic market is not very good at. The Americans are for example very good at this, to get you to sign in, in order to know the age and hobbies of their customers. This creates a customer base that gives them the opportunity to interact with each segment. This is what I would

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<sup>5</sup> Árangurinn sem við erum samt búin að ná og samböndin sem við erum búin að koma okkur í eru oft bara út af því að við erum Ísland, og mönnum finnst gaman að skipta við okkur og finnst við skemmtileg og höfum náð að búa til öflug tengsl og svona, það er miklu meira á þessum nótum sem við höfum náð svona árangri. [...] Við erum í samstarfi við Tesco [...] Það er, þessum gæjum sem eru með 3000 manna skrifstofur, og við sögðum þeim að hérna eru sex sem reka þetta allt saman. Þannig að oft öfunda menn okkur af einfaldleikanum okkar, þar sem hitt getur orðið rosalega flókið.

<sup>6</sup> Við erum eina þjóðin í Evrópu sem verslar meira við erlendar vefverslanir heldur en innlendar. [...] Við erum eina þjóðin, og við erum samt á eyju, þar sem þarf að fljúga og sigla með vörur. Og þegar þú kaupir þá veistu ekki nákvæmlega hvað varan kostar, og þú veist ekki nákvæmlega hvenær hún kemur heldur. En þú veist það, ef þetta er gallað þá ertu bara í rosalegum vandræðum.

say, is taking the marketing all the way. But those kind of activities call for a big analysis department within the company. [...] But in the terms of marketing, this is the smartest way to go. To understand your customer.<sup>7</sup>

### *Icelandic marketplace in terms of increased technological practices*

Hagar, for example, have not felt the need to learn about the buying behavior of their customers. They consider themselves to be a very cost driven company, which does not like to be drawn into something that they do not believe in. But they do agree that the best utilization of the marketing budget would be to be able to target each individual customer based on previous buying behavior. Sigurður mentioned the following in terms of this:

We have not had the understanding, or perhaps wanted to spend the money in the development of a department that would focus on learning about the shopping behavior in order to target each individual. I think this market is too small and we are too few for it to work, so we have not put any effort into it. For example, Icelandair, they have over fifty people working in a department that only takes care of their frequent flyers club. You have to be a huge company in order to take it all the way.<sup>8</sup>

Regarding online shopping and getting people to try new ways in how they buy products or service for example, Guðmundur had this to say:

To change a behavior is a very difficult process. Both, to change the behavior in order to get people to shop online, and also when people have started to shop online, to get them to shop elsewhere online, is a major issue.<sup>9</sup>

Due to the new technology and the possibilities that it offers, the marketing efforts has been changing in Iceland, Eva stated:

I would say that there is a revolution in marketing activities, because we know how it is to advertise in newspapers and on television, but we did not know which of the marketing mix worked. [...] Many companies think that they are advertising at the right place for the right segment, but that does not apply for everybody, although it does for

<sup>7</sup> Ég myndi segja kannski svona markaðslega séð að þetta sé eitt af því sem Ísland er ekki mjög duglegt í að gera. Kaninn er t.d. rosalega duglegur í þessu, að skrá þig einhversstaðar inn og verslunin fær að vita hvað þú ert gamall og áhugamálin þín og búa þannig til kúnna grunn og basis og geta náð að tala við hvern hóp. Þannig að geta tekið svona markaðsmálin alla leið mundi ég segja. En þetta kallar svolítið á bara greiningardeild innan fyrirtækisins. [...] Þetta er svona markaðslega séð eina vitið að gera þetta ca. svona. Að skilja kúnnann þinn.

<sup>8</sup> Menn hafa kannski ekki alveg, ég veit það ekki, haft skilning á eða týmt að gera þetta, þú veist búa til alvöru deild. En ég held samt að við séum bara of lítil og fá, þannig að við höfum bara ekki lagt í það. Sjáið bara eins og Icelandair, þar er einhver fimmtíu mann deild sem heldur utan um vildarklúbbinn þeirra, og þú þarft bara að vera rísa fyrirtæki til að fara í svoleiðis og fara alla leið

<sup>9</sup> Að breyta hegðun er alveg svakalega erfitt, og ekki bara að breyta hegðuninni að fara að versla á vefnum, það er líka þegar þú ert farinn að versla á vefnum og ætlar að fara að versla annars staðar á vefnum, er meiriháttar mál.

somebody. We at Meniga get this real time effect, [...] which means that Meniga has the opportunity to create relevant information to the consumer. [...] Therefore, with new technology, we are looking at a totally different landscape.<sup>10</sup>

## 6.2.2 Data gathering of personal information

### *Usage of personal identifying information*

The majority of interviewees pointed out the importance of treating personal identifying information with care, and that it is an important factor that companies need to consider. Two interviewees seemed to have stronger opinions regarding this, but that most likely results in the type of working environment they both work in. The interviewees referred to are Eva at Meniga and Alma at Persónuvernd. It can be a bit confusing to actually understand what is considered to be personal identifying information and what is not. Alma mentioned this in terms of categorizing what can be identified as this kind of information:

[...] and personal identifying information are in fact all personally-identified data which you can trace to a specific individual. So, it can both be information that you trace directly, for example name, social security number and suchlike. Or, it can be information that you trace indirectly, like IP addresses, emails, or that kind of information, those that are derivative information that in the end only end up in one place.<sup>11</sup>

“Those who design and create mobile applications need to first and foremost think about whether they are gathering this personal identifying information or not”<sup>12</sup>, was one of the first things that Alma mentioned. The usage of data gathering in terms of personal identifying information has over the past few years increased, resulting in a huge increase in process of those information, something that many did not even bother to think about a few years back. This most likely connects to the fact that usage and development of mobile applications has increased over the past few years, as mentioned in chapter 3.3. Alma pointed out that “the processing of personal identifying information is constantly increasing and it is reaching new

<sup>10</sup> Það er bylting í markaðsaðgerðum myndi ég segja vegna þess að við þekkjum hvernig þetta er að auglýsa í blöðum og sjónvarpi og allt þetta, þú veist í raun og veru aldrei hvað af marketing mixinu virkaði. [...] Mörg fyrirtæki halda að þeir séu að auglýsa á réttum stöðum fyrir rétta markhópa, en það á ekkert við um öll stökin í menginu, þó það eigi ef til vill við um einhverja. Það sem við náum er þessi rauntíma-effect. [...] Sem þýðir að Meniga getur komið með skilaboð frá viðeigandi fyrirtæki. [...] Þannig að með nýrri tækni erum við náttúrulega bara að horfa á eitthvað allt annað landslag.

<sup>11</sup> [...] og persónuupplýsingar eru í raun allar persónugreindar eða persónugreinanlegar upplýsingar sem þú getur rakið til tiltekins einstaklings. Þannig það geta bæði verið upplýsingar sem þú rekur beint, eins og nafn og kennitala og þess háttar. Eða þá að þetta geta verið upplýsingar sem þú rekur óbeint, og það eru til dæmis IP tölur, email, eða svona já, svona afleiddar upplýsingar sem samt í raun enda bara á einum stað.

<sup>12</sup> “Þeir sem hanna smáforrit eða búa til svona öpp þurfa að hugsa um númer eitt tvö og þrjú: Er ég að safna persónuupplýsingum?”

heights that we here did not imagine could happen 2-3 years ago.”<sup>13</sup> In align with this massive increase in data gathering, it is not at all abnormal that individuals are more concerned regarding this all. Alma mentioned in terms of this:

So, associated with increased digital processing as well as more processing of personal identifying information, aligning with social media and marketing in general, as well as with all the mobile applications, it all counts, and so it is normal that people do worry more and do therefore seek our advice even more.<sup>14</sup>

Related to that, employees at Persónuvernd have expressed concerns of the increases in data gathering of personal information and state that personal identifying information have become somewhat of a commodity for companies to do business with (Sindradóttir, 2016). It seems that data gathering is becoming a concerning factor for many individuals, and that more and more people seem to think about it in terms of what information companies are gathering, where this information goes and so on. Thinking about this in terms of Strimillinn, Alma noted a potential common concern that people might think about: “OK, by taking a photo of this slip, what information do get logged into the database? Does for example the Mac IP address for the computer log in with it, or what is it called, digital identification for smartphones?”<sup>15</sup>

One of the first things that Eva mentioned during the interview was that “we never work with personal information that can identify a specific individual, as that would be considered to be on a gray area. But, we always work with statistical summaries.”<sup>16</sup> For companies like Meniga, that are handling personal information such as financial information, it is important that those kind of companies fully understand the responsibility that they have in terms of data gathering. Eva did point out that the security level at Meniga could sum up to the security level in the banking industry, given that they are in fact handling the same information at some levels.

Usage of personal identifying information varies a lot, and depends at some level on the business that the company is in. It is therefore important that companies do not use this information in an immoral way, especially in terms of one factor that Alma mentioned referring to privacy of individual’s private life. She said that “the privacy of individual’s private life is

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<sup>13</sup> “vinnsla persónuupplýsinga er stöðugt að aukast og hún er að ná nýjum hæðum sem okkur hefði ekki óráð fyrir fyrir 2-3 árum.”

<sup>14</sup> Þannig að samfara aukinni stafrænni vinnslu og meiri vinnslu persónuupplýsinga og samfélagsmiðlarnir og markaðssetning og smáforritin, og allt þetta telur, að þá er eðlilegra að fólk hafi meiri áhyggjur og leitar þar af leiðandi meira til okkar.

<sup>15</sup> “Okei, með því að taka mynd af þessum strimli, hvaða upplýsingar skrást í þennan gagnagrunn? Kemur fram til dæmis Mac addressa, eða hvað heitir þetta, stafræn auðkenni fyrir til dæmis viðkomandi snjallsíma?”

<sup>16</sup> “Við vinnum aldrei með persónugreinanlegar upplýsingar, enda væri það orðið á mjög gráu svæði. En við vinnum alltaf með tölfræðilegar samantektir.”

threatened by this massive increase of personal identification and the mapping of both the behavior and customs of individuals”<sup>17</sup>. Connected to this discussion is the value creation for the user of the process of this information, which will be further discussed in chapter 6.2.3.

### *The credibility of data gathering*

Often when companies are gathering data, they are working with live data, which are based on consumer’s real consumption. This gives the companies a better perspective on how the market is behaving, since these kind of data are based on hard core facts, not thoughts and feelings. That is one of the thing that Eva mentioned that are so important when it comes to data gathering, saying: “I can see exactly what you did.”<sup>18</sup> Eva took a good example referring to the market share for an oil company in Iceland:

It was extremely high in Gallup’s market survey, but it turned out differently in my data. Then there were factors that connected to this, like for example that people only remembered the oil collusion, stating then factors like: “I only shop with the underdog because I will not participate in such a nonsense like this.” But in reality, the delivery network at this particular oil company was not that good, and maybe the other little underdog was in their backyard.<sup>19</sup>

This was referring to that people who did not do business in the reality with the ones they said they only shopped at in the market survey, resulting in skewed results. This shows so well how a right orchestrated data gathering can help companies to understand and to see black on white simple factors like market share. In addition to this subject, it is important that those who use information, retrieved from data gathering, know how to read the data and can see exactly what the data is giving them, as Eva mentioned: “The data itself is not anything – it is just how you interpret them, act with them and use them.”<sup>20</sup>

### *Educating the user*

What seems to be the one of the major concerns that the interviewees pointed out was related to the fact that many individuals do not seem to fully understand why the data is in the first

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<sup>17</sup> “stafar friðhelgi einkalífs mikil ógn af þessari gríðarlegu aukningu á persónugreiningu og kortlagningu á hegðun og venjum einstaklinga.”

<sup>18</sup> “Ég sé nákvæmlega hvað þú gerðir.”

<sup>19</sup> Hún var geðveikislega há hjá Gallup, en svo var raunin bara allt önnur hjá mér. Þá voru svona hlutir sem tengdust þessu eins og að fólk mundi bara eftir olíusamráðinu, segja hluti eins og: “Ég versla alltaf við litla manninn því ég tek ekki þátt í svona bulli.” En raunin var sú að dreifinetið hjá þessu tiltekna olíufélagi var ekki gott, og fólk var ef til vill með annan svona “litla manninn” í bakgarðinum hjá sér.

<sup>20</sup> “Gögnin sjálf eru ekki neitt – það er bara hvernig þú túlkar þau, “act-ar” með þau og notar þau.”



place being gathered. Alma pointed out that if companies are gathering data about individuals, like Strimillinn is doing, then they need to think about factors like:

OK, am I working with personal identifying information by collecting data in the way I do, because if I do so, then I need to provide a certain education about it, and possibly I need to get permission from the user for any kind of process of this information and so on.<sup>21</sup>

Eva also talked about factors regarding to this education. When asked if she was aware of any more concerns from Meniga's users regarding protection of personal identifying information, she noted that people do often wrongly interpret how and why companies gather and use personal identifying information. Eva said that she sometimes hears it from their users: "You are misusing my data." Eva then said that the reason for why individuals act like that is in fact due to insufficient education of the usage of the data. She mentioned:

[...] then we have not succeeded in educating this particular individual about our operations. But it is much less than we anticipated. At first we were like: What are people going to say when we have all this data and it does not understand the big picture?<sup>22</sup>

Alma mentioned that it is important that education on the reason for data gathering as well as what information is gathered, is provided in a clear and simple manner, so that it is easy for the user to understand. Eva stated that the value for the user has to be clear, that is, that the company has to create some value for the user in order to gather this information about him or her. Discussion about value creation in terms of data gathering will be covered in chapter 6.2.3.

### *Educating the company*

It is not only important to educate the users of data gathering, but also to educate the companies of the importance that the processing of personal identifying information is done correctly. Alma mentioned a new regulation that was recently published by The European Parliament and The Council of the European Union, which stated new rules and regulations on the protection of individuals with regard to the processing of personal data and on the free movement of such data (Regulation (EU), 2016). According to Alma, this new regulation, which will be effective in 2018, will put heavier weight on companies that process personal

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<sup>21</sup> Okei, er ég að vinna með persónuupplýsingar með því að safna gögnum svona, því ef svo er, þá þarf ég að veita ákveðna fræðslu, og þá þarf ég mögulega að fá samþykki fyrir einhvers konar vinnslu á þessum upplýsingum og þar fram eftir götunum.

<sup>22</sup> [...] en þá hefur okkur ekki tekist nógu vel að kenna þessari ákveðnu manneskju um starfsemina. En það er miklu minna heldur en við höldum. Við vorum fyrst bara: Hvað er fólk að fara að segja þegar við erum með þessi gögn og það skilur ekki heildarmyndina?

identifying information about individuals, both general and in terms of marketing operations. When asked about the responsibility that companies then do have to uphold after this regulation will be effective and how much weight it will put on companies, Alma said:

Yes, it will lay heavier weights on companies that intend to work with personal identifying information, and especially when it comes to information connected with under age children. But, we cannot forget, and I think I am speaking correctly when I say that by the year 2020, it will be estimated that the monetary value of personal identifying information of all individuals in Europe will be one trillion euros, so it is not for free to use this information and one cannot expect it and go on and use this information without assure the right of the individual or at least give something back. But yes, the execution will definitely be difficult, and it has yet to appear how it will be executed. It has not yet been defined since this is all so new, but of course, we always have to remember to care for both interests, that is for the companies as well as for the individuals.<sup>23</sup>

So, align with this, it will not become as defaulted to gather as much personal identifying information as companies would have wanted. Regarding to this subject, Alma had this to say:

So, companies need to start putting personal data protection in first place and to demonstrate a true compliance to current valid laws as well to this new regulation to not jeopardize the potential of getting a complaint or a fine if not followed correctly.<sup>24</sup>

Here, she emphasized the true meaning of treating personal identifying information with care and exactly how important this whole process has to be rightfully conducted in terms of laws and regulations.

### *The approval of the user*

Gathering personal identifying information of users requires approval from them, as is stated in both the seventh and eight paragraph of the Act no. 77/2000 on The Protection of Privacy as regards the Processing of Personal Data.<sup>25</sup> Alma mentioned that there is a clear statement in the law referring to that if a company is going to gather information about individuals, it has to

<sup>23</sup> Jú, þetta leggur þyngrir birgðar á fyrirtæki sem ætla að vinna með persónuupplýsingar, og sérstaklega þegar kemur að upplýsingum um börn, en það má heldur ekki gleyma, og mig minnir að það sé rétt, að árið 2020, að þá er búið að áætla það að verðgildi persónuupplýsinga allra einstaklinga innan Evrópu verði ein trilljón evra, það er ekki ókeypis og þú getur ekki ætlast til þess og ætlað að fara að nýta þér og vinna þessar upplýsingar án þess að tryggja rétt einstaklinga eða láta eitthvað í staðinn. En jú, framkvæmdin verður vissulega erfið og það á eftir að koma í ljós hvernig hún verður útfærð. Það liggur ekki fyrir núna því þetta er allt svo nýtt, en það verður auðvitað að muna að gæta hagsmuna beggja aðila, bæði fyrirtækja og einstaklinga.

<sup>24</sup> Þannig að fyrirtæki munu þurfa að fara að setja persónuverndarmálefni á oddinn og sýna fram á raun reglufylgni við þessi lög og reglugerð ef þau vilja ekki eiga í hættu á að fá á sig kvörtun eða fésekt, ef þessu er ekki rétt fylgt.

<sup>25</sup> Lög um persónuvernd og meðferð persónuupplýsinga nr. 77/2000.

have some legal basis in the eight paragraph of previously mentioned law, more specifically, in the first clause of the eight paragraph. There, it is stated that the process of personal identifying information is only authorized if for example the one processing the information has a clear permission for the process. This permission is described in the seventh clause of the second paragraph of the law, were it says:

Permission: Special, unequivocal statement which an individual states voluntarily that he authorizes the process of specific information about himself and that he is familiar about the purpose of it, how it is conducted, how the personal protection will be secured, that he is authorized to revoke his approval etc.<sup>26</sup>

So, the importance of existence of an institution like Persónuvernd is extremely important, especially in terms of this factor regarding the approval of the user. If it were not for an institution like this, researchers believe that companies would go far beyond normal limits when gathering data about individuals through for example mobile applications.

### *The future of data gathering*

Eva stated well how she wanted the future of data gathering to be and how it could help many companies in the future to use their data more efficiently:

[...] it is also to be able to predict about the future. Today, we are basing our analysis on past spending, but I want to be able to predict more. I would want to see more and to be able to analyze future thoughts. We are in the process of trying to go there, and to see for example: What happens if an individual buys a bed? It could well happen that if he does buy the bed, the individual might think: “Oh no, this is impossible, now I have to paint the bedroom walls also.” So bottom line, what are the odds that when you buy something, to be able to figure out what the point is that triggers this individual to do something more, buy more, in the future? That is the idea of understanding the community, but this is a huge analysis project that we would really like to develop.<sup>27</sup>

<sup>26</sup> 7.tölul. 2.gr. laga nr. 77/2000: Samþykki: Sértek, ótvíráð yfirlýsing sem einstaklingur gefur af fúsum of frjálsum vilja um að hann sé samþykkur vinnslu tiltekinnar upplýsinga um sig og að honum sé kunnugt um tilgang hennar, hvernig hún fari fram, hvernig persónuvernd verði tryggð, um að honum sé heimilt að afturkalla samþykki sitt o.s.frv.

<sup>27</sup> [...] en það er líka að geta spáð fyrir um framtíðina. Í dag erum við svo mikið að byggja á “past-spending”, en mig langar að geta spáð meira. Ég væri til í að geta séð meira svona í framtíðarpælingum. Þannig við erum svolítið að feta okkur þangað og sjá til dæmis: Hvað gerist ef þú kaupir þér rúm? Það getur bara vel verið að það sem gerist, að þá þegar maður kaupir rúmið, að þá gæti einstaklingurinn hugsað: Oh nei, þetta er ómögulegt, núna þarf ég að fara að mála veggina í svefnherberginu líka. Þannig svona bottom line, hversu miklar líkur eru á því að þegar þú kaupir eitthvað, að finna út hver sé trigger punkturinn fyrir því að þú gerir eitthvað meira í framtíðinni, kaupir eitthvað meira? Það er svona pælingin með því að skilja samfélagið, en þetta er risa stórt greiningarverkefni sem okkur langar mikið að fara í.

This type of thinking, to be able to predict how potential spending and buying behavior in the future could possibly be, is fascinating, and in the researchers' opinion, in line with how marketing is shifting in current times.

### 6.2.3 *Value for the customer*

#### *Company's value proposition*

All marketing activities that companies send out have to have some benefit for the individual that falls within its target audience, that is, it has to create some value. Regarding each interviewees business, all had different opinion which should be the value for their users or customers. Eva mentioned how her existence at Meniga all started, stating when she first started, she got a simple instruction: "Here we have all sorts of available data, create some value out of it."<sup>28</sup> When Guðmundur was asked what he believed was the value for his customers at Heimkaup associated with Heimkaup's ideology, he replied:

It is simple; it is to simplify. [...] We deliver all of our products on the same day, no matter what day it is. [...] So, our ideology is convenience. Broad product range, convenience, and of course good prices, it is that simple.<sup>29</sup>

Eva was assented when asked the same question as Guðmundur, thinking of Meniga's value proposition:

Basically, we at Meniga help people to get overview of their finances. Back in the days, people collected all the receipts from the stores, it was something that the household was suppose to do, and then you had the Excel sheet and tried to log in every entry – Then it could happen that one family member lost the receipt [...] so it is extremely time consuming, not accurate and kind of just dead boring. [...] So we saw an opportunity to make the data even a little more fun. We simply took the data, or people's entries, and categorized them into pre-defined categories, that is the heart of Meniga.<sup>30</sup>

Eva added then that the prior method of having an overview of your financial status resulted in a wallet full of receipts. Then, in 2009, Meniga was established, and with that appeared this

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<sup>28</sup> "Hér er fullt af alls konar gögnum til, búðu til eitthvað virði úr þessu."

<sup>29</sup> Þetta er auðvelt, það er að auðvelda. [...] Við afhendum allar okkar vörur samdægurs, það skiptir ekki máli hvaða dagur það er. [...] Þannig að, okkar hugmyndfræði er þægindi. Breitt vöruúrval, þægindi, og að sjálfsögðu gott verð, þetta er bara það einfalt.

<sup>30</sup> Meniga er í grunninn að hjálpa fólki að fá yfirsýn yfir fjármálin sín. Einu sinni var það hægt með því að safna kvittunum og heimilið átti að gera það, og síðan varstu með Excel skjal og reyndir að skrá inn allar færslur – Það gat svo gerst að annar aðilinn á heimilinu týnir kvittun [...] þannig þetta er mjög tímafrekt, ekki nákvæmt og eiginlega bara hundleiðinlegt. [...] Þnnig við sáum tækifæri að gera gögnin enn skemmtilegri. Þannig við tókum gögnin, eða færslurnar, og við flokkum þær, það er svona hjartað í Meniga.

opportunity: “How can we make this a little bit more fun and so that you do not have to put all our time into this work?”<sup>31</sup> This simple value, the simplicity, is something that seems to be a harmonizing thought among various specialists on the market. Eva also added that when Meniga launched their mobile application, it completely changed things. Their application helped to make the overview of the finance being even more simplified, and some users of Meniga quoted that they loved to categorize entries themselves in buses or while they were waiting for something. So it can be said that Meniga has taken something that is considered to be quite boring, that is going over your own financial status and looking at your financial behavior, by mirroring it to the users in a fun and simple way through both a mobile application and a desktop. Eva kept emphasizing on the core value of Meniga:

It was always the main focus for Meniga to bring some value proposition to the users and to help them save, which is our core value. We help users to save and to get a better overview of their financial status. That is the heart that beats here at Meniga. Everything we do, it has to evolve around that thought.<sup>32</sup>

When Guðmundur was asked again if he considered there to be any more value propositions, he replied that he believed another value for his customers was how fast Heimkaup responded to various problems that could occur. He noted:

Customers are really demanding and what you see here are reviews. [...] We endeavor to answer everybody [...] and everyone gets a reply that is visible for everyone to see at our webpage. [...] So it is important that people are happy and we lean over backwards to keep it that way.<sup>33</sup>

It can then be said that at some levels, companies are focusing on creating this value for the customer or user, as was reflected in the interviews both with Meniga and Heimkaup, which are two very different companies with different focus.

### *Value for the customer to have the control*

For customers to get the control over what marketing activities they see and get, is considered to be of great value for them. With that, customers are controlling even better what is relevant to them, instead of having the various companies out there deciding it.

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<sup>31</sup> “Hvernig getum við gert þetta aðeins meira skemmtilegt og þannig að þú þurfir ekki að leggja svona mikla vinnu í þetta?”

<sup>32</sup> Það hefur alltaf verið svona gulrótin hjá Meniga að koma með eitthvað “value proposition” fyrir notendur til þess að spara, sem er aftur core-ið okkar. Við hjálpum notendum að spara og fá betri yfirsýn yfir fjármálin. Það er bara hjartað sem slær hér í Meniga. Og allt sem við gerum, þarf að mótast við þetta.

<sup>33</sup> Viðskiptavinir eru mjög kröfuharðir og það sem þið sjáið hérna er gagnrýni.[...] Við kappkostum að svara öllum [...] og öllum er svarað fyrir allra augum á heimasíðunni okkar. [...] Þannig að það er mjög mikilvægt að fólk sé ánægt og við leggjum okkur fram við að halda því þannig.

The majority of the interviewees talked about how the marketplace is changing and resolving to the fact that now it seems that the customer is getting the control, little by little. Guðmundur mentioned that although Heimkaup was at some level still relying on the mass marketing tactics in terms of sending out direct mail to customers, they are in fact moving towards letting the customer decide for himself or herself what he or she wants to see. He noted that as for now, customers can decide how often they want to receive direct mail from Heimkaup and that they are starting to send out emails that are directly suited for each customer's preference; stating that they are now moving towards more personalization of the direct mail.

Within this new regulation that Alma talked about, are stated new demands and obligations to those companies that are creating and developing a new software, mobile applications and so forth. Alma described these new obligations by saying:

One thing that is perhaps critical with this new regulation, is that there have been established new obligations which are called “privacy by design” and “privacy by default”. What consists in these new rules within the regulation is that companies that intend to create a new software or a new information system or even a mobile application, then in the beginning of the design process, they have to take into consideration both personal protection and privacy of consumers. [...] Like the situation is today, for example on Facebook, you have to intervene yourself in order to protect your information. So, this is a fundamental change which is implied by the default, the thing that is given, that your information is protected for any irrelevant factors, and you as the controller and owner of your own information, can choose whether you want to grant more access to your information or not.<sup>34</sup>

Alma then stated that the “intention of this new regulation was to update the legislation in unison to this digital information century that we live in today”<sup>35</sup>, and also to “bring the individual back the control of his or her information”<sup>36</sup>, cause according to Alma, she feels like we are a little bit losing the grip.

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<sup>34</sup> Eitt sem er kannski merkilegt með þessari nýju reglugerð, að þá eru settar fram nýjar skyldur sem kallast “privacy by design” og “privacy by default”. En það felst í þessari nýju reglu innan reglugerðarinnar að fyrirtæki sem ætla að smíða nýjan hugbúnað eða ný upplýsingakerfi eða smáforrit, þau verða í upphafi hönnunarferlisins að taka tillit til persónuverndar og friðhelgi. [...] En eins og staðar er í dag, eins og til dæmis á Facebook, að þá þarft þú alltaf að grípa til aðgerða til að vernda þínar upplýsingar. Þannig að þarna er mikil grundvallarbreyting sem felst í því að default-ið, það sem er gefið, er að upplýsingarnar séu verndaðar gegn óviðkomandi og þú sem stjórnandi og eigandi að þínum eigin upplýsingum, þú getur valið að veita fleirum aðgang að þessu.

<sup>35</sup> “Ætlunin með þessari nýju reglugerð er að uppfæra löggjöfina í samræmi við þessa stafrænu upplýsingaöld sem við lifum á í dag.”

<sup>36</sup> “gefa einstaklingum aftur stjórnina á sínum eigin upplýsingum.”

### *The true value for the consumer*

Eva mentioned that one of the value connected to the previously mentioned control factor for Meniga's users was that they could decide for themselves what categories they want to see, letting the user decide for himself what information he or she believes are relevant. This reflects in what information Meniga sends to users, based on their buying behavior. Since the user decides for himself or herself what categories he or she wants to monitor, the user is in fact deciding what messages he wants to receive. In terms of this, Eva stated:

This is what Meniga is doing. We are sending out relevant offers to people based on their buying behavior or their consumer pattern. For example, if someone is interested in golfing, he or she receives offers related to golfing. If someone is interested in clothing, he or she gets offers sent to their Meniga account from various clothing stores. We also help people to bring down heavy expensive factors, like gas, food and insurance, by sending relevant offers related to that.<sup>37</sup>

This is what the researchers believe is the one of the core values and the absolute advantages of data gathering, and should at their opinion be stated into most marketing activities from companies that are focusing on data gathering.

Emphasizing again on the importance of treating personal identifying information with care as has been grasped upon earlier in this section, one has to understand that the usage of this information has to create value for both parties. If a user does not see the value for example in downloading a particular mobile application, why should he? Eva mentioned three companies that she considered do a good job in terms of this: Amazon, Netflix and Spotify. Eva mentioned that 75% of the material that is watched in Netflix, came from recommendation and that 35% of what is bought at Amazon also come through recommendation. She mentioned that this value that the companies use those algorithms to help the consumer to find out what he wants is so fantastic. In terms of this, she said the following:

In terms of Netflix, I am now looking at TV shows that I would never had thought to look for. But, this is value for me. It is value for me that I can buy some books from Amazon that I did not know about, and are one of my favorite books today. The same goes for Spotify, this Discover Weekly thing. I find it amazing. I am up for it, as long as those companies use my data in a ethical way, because it creates value for me. As long

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<sup>37</sup> Þetta er það sem Meniga er að gera. Við erum að koma með viðeigandi tilboð á fólk út frá neysluhegðun eðða neyslumynstri. T.d. ef maður hefur áhuga á golfi, að þá fær hann golftilboð. Ef einhver hefur á fatnaði, þá fær hann tilboð frá fataverslun. Við hjálpum líka fólki að ná niður "heavy" útgjaldaliðum, eins og bensín, matur og tryggingar með því að senda relevant tilboð fyrir það.

as it is clear stated what is being done with my data, like the recommendations at Netflix and Amazon, and Discover Weekly at Spotify, then I believe in this.<sup>38</sup>

#### **6.2.4 New ways in marketing relating to new technology**

##### *Using mobile devices for marketing*

All the interviewees agreed that smartphones are the new future in marketing. A device that everybody carries with them, all the time. Therefore, there are many possibilities to utilize that in marketing. In the near future, it is going to be essential for companies to find ways to interact and to get relevant information to their customers via smartphones, since people are increasingly choosing more by themselves what, when and where to watch, listen or read desired material.

Sigurður had concerns about how to reach the younger generations, that does not watch traditional television programs, do not listen to the radio and do not read the newspapers. He stated:

If we want to reach the sixteen year olds, then people say, where do I reach them? They just have Spotify in their ears and do not listen to FM, the radio station, anymore, they do not turn on the news and do not watch much television in general; they are just downloading illegal TV shows. Where do we reach them?<sup>39</sup>

He also mentioned that celebrities have many followers on various social media, and points out that as a possibility to reach younger consumers:

Today, we might just as well have to go in collaboration with Auðunn Blöndal, who has over thirty thousand followers on Snapchat, and has become his own media. He has therefore obtained contracts with Ölgerðin and Dominos, and other companies. It is therefore a new way for us to study. If our target group is people with families and are not in this all the way, it is alright, but if your target group would be seventeen year olds, you would have to go different ways to reach them.<sup>40</sup>

<sup>38</sup> Í tengslum við Netflix, þá er ég núna að horfa á þætti sem mér hefði aldrei dottið í hug að leita að. En þetta er value fyrir mig. Þetta er value fyrir mig að ég kaupi mér bækur á Amazon sem mér hefði aldrei dottið í hug að kaupa, og eru núna uppáhalds bækurnar mínar. Þetta er það sama og með Spotify, og þarna, Discover Weekly dæmið. Mér finnst þetta frábært, og ég er alveg til í þetta, ef fyrirtækin nota gögnin mín á siðlegan máta, af því ég fæ value fyrir þetta. Svo framalega sem þetta er skýrt hvað er verið að gera við gögnin mín, eins og recommendation hjá Netflix og Amazon, og Discover Weekly hjá Spotify, á trúu ég á þetta.

<sup>39</sup> En þegar þú segir, ég ætla að ná í sextán ára fólkið, þá segja menn, hvar á að ná í það? Það er bara með Spotify í eyrunum og hlustar varla á FM, skilurðu, og það kveikir ekki á fréttunum eða horfir lítið á sjónvarp og er bara að hala niður einhverjum ólöglegum þáttum. Hvar nær maður í það?

<sup>40</sup> Þannig í dag liggur við að maður kaupi bara, eða gerir samning við Auðunn Blöndal sem er með þrjátíu þúsund fylgjendur á Snapchat og er bara orðinn miðill. Enda er hann með samninga við Ölgerðina og Dominos og fleiri aðila, og gerir bara út á



Guðmundur mentioned that it is very important to have a mobile friendly webpage since the increase in traffic is coming through mobile devices. When asked about if he thought that marketing practices today match with increased ownership of smartphones, he replied:

It is very important for us to have the whole experience seamless from the advertisement until the purchase is completed in the mobile device. Today, it is not good enough, but it is a global problem. The conversion rate in mobile is a lot lower, they can be around one third of the conversion rate on desktop. [...] All the analysis departments say that the mobile conversion rate will go up. This new generation, that is growing up, it does not need to sit down at the computer to finish a purchase. They do not even own a computer, they only have iPhone with a HD screen, where they can see everything and do everything.<sup>41</sup>

When Eva was asked how she is sensing the overall changes in the marketing environment regarding the same factor as Guðmundur was asked in terms of increased ownership of smartphones, she stated:

I am not saying that it is unnecessary to advertise in newspapers and radio. But it has been come a measure that marketers are putting more and more budget into. It has become kind of a trend among CMO's to scale down the use of traditional media and switch over to digital media. They want to understand, they want to see and understand what the budget is going into. And it is not as clear when using traditional media like, newspapers, radio and all that.<sup>42</sup> I believe in the smartphone; it is just like an accessory that goes everywhere with you. But, he might not be very practical in getting along complex messages. He would not be good if I would have a lot of text on the whole screen. But it is also a challenge, for example a company that is not very well known.<sup>43</sup>

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þetta. Þannig að það eru að koma svona nýjar leiðir sem þú þarft soldið að stúdera. Ef að okkar markhópur er fólk með fjölskyldur og er ekki alveg á kafi þarna, en ef að target hópurinn þinn væri sautján ára þá þarftu að fara allt aðrar leiðir.

<sup>41</sup> Það er mjög mikilvægt fyrir okkur, og eitt af því sem á eftir að gera, er að þessi upplifun geti verið alveg „seamless“ úr auglýsingunni þar til hægt er að klára kaupin úr snjallsíma. Það er ekki alveg nógu gott, þetta er reyndar global vandamál, innan gæsalappa. Þar sem conversion rates í sínum er miklu lægri, þau eru svona helmingur til einn þriðji af conversion rate-inu á desktop. [...] Og allar greiningardeildir segja það að þetta muni breytast. Það er að segja að mobile conversion muni fara upp. Þessi nýja kynslóð hún mun ekkert þurfa að setjast niður við tölvuna og klára kaupin. Sumir eiga ekki einu sinni tölvu. Eru bara með, iPhone 6, HD skjár, sérð allt, getur allt.

<sup>42</sup> Ég er ekki að segja að það sé óþarfi að auglýsa í blöðum eða útvarpi. En hins vegar er þetta orðinn kvarði sem menn eru farnir að setja meiri og meiri pening í. Það er svolítið trendið núna hjá markaðsstjórum, að þeir ætli að draga úr notkun hefðbundinna miðla og færa sig meira yfir í stafræna miðla. Menn vilja bara skilja, þeir vilja sjá og skilja hvert peningurinn fer. En þú sérð einmitt svo lítið kannski með hefðbundnum miðlum, blaðið og útvarpið og það allt.

<sup>43</sup> Ég trúi á símann, hann er bara svona eins og fylgihlutur og fer með þér allt. En, hann er kannski ekki góður til að koma flóknum skilaboðum áleiðis. Hann er ekki góður ef ég væri með helling af texta á öllum skjánum. En það er líka challenge, ef það eru til dæmis fyrirtæki sem eru ekkert rosalega þekkt.

### *Using mobile applications for marketing*

There seems to be a trend among many companies to create a mobile application, that ultimately becomes dormant and no one uses. There needs to be a clear value for the consumer so he or she is willing to use the app, connecting to prior discussion of the value creation. If done properly, it can potentially gather huge amount of information about the consumer and his buying behavior. If a company launches a new mobile application, it is very important to educate the users about the functionality of the application, or as Eva said:

If the company does not know the functionality of the app, it is certain that the customer does not know it either. [...] And it also needs to be a clear value in the application. We normally just use around ten apps and it can also be considered as a share of wallet thing, because you do not have room for too many applications. I am not going to use them all, I just throw them out. I just choose carefully the ones I am going to be using. [...] It is also important, since the mobile screen is too small, to have all the necessary information short and to the point.<sup>44</sup>

Regarding a company like Heimkaup, which is solely in online shopping business, it is crucial to keep up with latest technology changes in order to stay in touch with its potential customers and to give them an easier way to purchase, or as Guðmundur said:

A mobile application for a company like Heimkaup, absolutely. It is our goal, of course. Even though you have a great mobile friendly homepage, you do not get the same experience like in a dedicated app. So, I think that for a company like ours, it is going to end up in an app.<sup>45</sup>

He also mentioned Amazon, and how they are utilizing every trick in the book in order to learn about their customers, but also to create a value for the customer when they use the services that Amazon has to offer. The Amazon application has the ability that the user can just take a picture of an object and the application recognizes it, both showing the user the exact item for sale on Amazon.com, and also some possible accessories that goes with it. Guðmundur showed the researchers how this function works by taking a picture of a remote control, and within seconds, the application recognized this item and offered it for purchase. It also showed the

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<sup>44</sup> Ef þú veist ekki hvernig appið á að vera sjálfur, að þá er það alveg skothelt að fólkið sem verslar við þig veit það ekki heldur. [...] Þannig það þarf að vera value í appinu. Við erum að meðaltali að nota svona 10 öpp. Og það má líka hugsa það sem svona share of wallet pælingu, það er bara ekki pláss fyrir fleiri öpp hjá mér, ég ætla bara ekki að nota fleiri, ég hendi þeim bara út. Ég vel bara nokkur vel valin sem ég nota. [...] Þetta með að skjárinn sé of lítill er alveg góð pæling, þú vilt bara fá þetta stutt og laggott, það er bara í forgrunni.

<sup>45</sup> App fyrir fyrirtæki eins og Heimkaup, klárt mál. Það er okkar markmið, að sjálfsögðu. Þú nærð aldrei, þótt þú sért með góða mobile síðu, sömu upplifun eins og í sérsniðnu appi. Þannig að ég held að fyrir fyrirtæki eins og okkur, það endar í appi.

television that the remote control worked with, among other recommendations for additional purchases. So this application, clearly uses cross-sales in order to increase the basket size, which can clearly create benefit, or value, for the customer.

When the researchers asked Sigurður if Hagar were considering to create a mobile application, he mentioned that one of their companies, Útilíf is in the final stages of making an application. Sigurður had this to say about it:

It is somewhat preparing to make some kind of customer club, where the user can sign in and get some special offers fit for their preference. Like for example, if you are a runner, or a swimmer, or a hiker, you would get a notification about a special offer on an item that matches the preference. You will get a QR code that you can show at the store in order to get the special price. Útilíf is studying this, but people sometimes forget that if you are going all-in in a project like this, it is going to cost a lot of money, so you need to think this through. It happens so many times that companies make something and think that everything will happen on its own.<sup>46</sup>

### *The new trending ways in marketing*

The new way of marketing is to be able to know the customer and know their needs and wants. By knowing their preferences based on past buying behavior, companies can better customize special offers and information that they send out to users. Also, it is important to be able to stay in touch and give the customer an opportunity to interact himself or herself with the company. In connection to this discussion, Eva said that:

It is just another level, and I can feel that now, especially among young executives, they demand measurability, and that is great because there is more demand for a budget cut in marketing activities. Therefore, it is becoming more important to be able to divert the budget into isolated activities where they can generate the biggest revenue for the company.<sup>47</sup>

In addition, an application is a better way to offer the customer a special deal or a discount, rather than going the traditional way, that used to be in the form of a loyalty card or a coupon.

<sup>46</sup> Er svona aðeins að undirbúa sig að búa til svona vildarklúbb og getað signað þig inn og sent ákveðnum category-um mail, þannig að ef þú veist, er hlaupari, eða sundmaður eða göngumaður, þá færðu notification að gönguskór séu á tilboði, og fengið sendan QR-kóða sem þú kemur með og getur fengið afslátt af vörunni. Og hérna, þeir eru aðeins að stúdera þetta, menn gleyma því samt oft að þegar þú ætlar í svona verkefni þá kostar þetta rosa pening, þú þarft að fara all-in og hugsa þetta til enda. Það er svo oft sem menn búa eitthvað til og halda að þetta gerist sjálfkrafa.

<sup>47</sup> Þetta er bara allt annað level, og ég finn það bara núna, og sérstaklega með unga stjórnendur verð ég að segja, þeir gera kröfur á mælanleika og það er svo frábært vegna þess að þetta skilar sér líka í það að það er alltaf verið að herða á markaðs-budget-ið og það er bara eins og það er, en þá að geta bara varðveitt fjármunum á þá staði sem þeir raunverulega þurfa þá og geta þannig farið í svona einangraðar aðferðir sem þú skilur sem stjórnandi.

Besides, the fact that the consumer could lose the card or the coupon, the value for the firm is clear in using an application instead, or as Eva mentioned:

What is the value for the company? They do not know anything about me when I show up with a coupon. How much did I shop for? They do not know that. Did I come back? They do not know that. Did I stop shopping somewhere else? They do not know that. It is this demand of understanding, to go from these cards, which are not working, and instead utilize some ways that results in the user to be more careful with their money.<sup>48</sup>

Sigurður agreed that knowing the customer is an important factor, but thinks that the size of the Icelandic market is an issue that does not weigh up against the cost originates when companies go into marketing activities in trying to get to know their customers even better. He stated:

Foreign executives, often ask us how we reach our potential customers. We often say that we are so few, that it is enough to advertise at Bylgjan and RÚV, in television and couple of newspapers, and we have the whole market, in a week. Therefore, it is not that complicated. But sometimes you want to be able to reach a certain segment, but then you have to find up some new ways. We are concerned that knowing the individuals' preferences could be too much for our company.<sup>49</sup> Like the focus for Bónus, it is only thinking about one thing, and that is to offer the product on the lowest price possible, and the customer rewards us for that. That is the only thing that we are going to do. That is the model that works for them and they are growing and doing better and better. They just have a clear agenda. [...] We are trying to be focused and try to not be drawn into things that we do not believe in at the moment.<sup>50</sup>

Companies today have the potential to strengthen their business by implementing social media in their marketing activities. Aligning with that, if companies know how to use them

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<sup>48</sup> Hvaða value hefur það fyrir fyrirtækið? Þeir vita ekkert um mig þegar ég mæti með þetta. Hvað verslaði hún fyrir mikið? Þau vita það ekki. Kom ég aftur? Þau vita það ekki. Hætti ég að versla hjá einhverjum öðrum? Þau vita það ekki. Það er þessi krafa að skilja, að fara úr kortunum sem eru kannski ekki að skila þér og notast frekar við leiðir sem eru að gera það að verkum að notendur eru að fara miklu betur með féð sitt.

<sup>49</sup> Menn spyrja hvernig náði þið í hópinn og neytendur, þá getum við líka sagt að við séum bara svona fá, við getum bara farið á Bylgjuna og RÚV og í sjónvarpið og tvö dagblöð og við erum búnir að ná í alla, sko á einni viku. Þannig lagað er þetta ekkert gríðarlega flókið, en stundum vill maður náttúrulega ná í ákveðinn hóp, eða minni hóp eða ákveðinn kjarna, þar sem þú getur farið einhverjar svona leiðir. En við óttumst að hitt gæti orðið of mikið batterí, við erum oft rosalega hrædd við að búa til einhverjar deildir og dót, sko.

<sup>50</sup> En segjum kannski bara hvernig fókúsin er hjá Bónus, að þeir segja bara, við hugsum bara um eitt, og það er að bjóða vöruna á eins lágu verði og við getum, og kúnninn er að verðlauna okkur fyrir það, og það er bara það eina sem við ætlum að gera. Og þeir bara eru ekkert í neinu öðru. Og það er bara að virka fyrir þá, þar sem fyrirtækið er bara að stækka og stækka og gengur betur og betur. Bara með svona skýrt agenda. [...] Þannig að við erum að reyna að vera svolítið fókuseruð á hérna að láta ekki toga okkur úti eitthvað sem við höfum ekki alveg trú á.

effectively, they can better interact with their customers in order to send relevant messages to them. In terms of this discussion, Guðmundur mentioned the following:

In the world today, if a company does a mistake, Facebook just explodes. So if, and when you do a mistake, which can always happen, you just have to be honest about it. So, the trust of the customers? Long-term, is very important. We are very conscious about that. And also, to answer every customer that is unhappy, right away.<sup>51</sup>

### *The feasibility of modern ways in marketing*

Heimkaup believes in targeting their segments using emails. They have been using the cannon approach, where the same message is sent to everyone that exists on their email list in the hope that someone will take the bait. As Guðmundur stated:

Yes, we admit it, we use mainly the cannon approach. But we are going more and more towards personalization, where the problem is that the efficiency is not enough, so far, but we are working on it. To make the personalization efficient enough, so it can be the main vehicle in the email marketing approach.<sup>52</sup>

When Sigurður was asked about other modern ways in marketing that Hagar had recently been using, he said that:

When we were in the process of launching the brand F&F for Hagkaup, we got some outside consultancy in order to go outside the box. So when we marketed and launched it over a year ago, we went into the whole blog world and had big opening festival in Kringlan. So that is kind of going outside what Hagkaup has normally been doing.<sup>53</sup> Another thing, regarding food blogs, Hagkaup has always been willing to sponsor them. Have always been noticeable throughout the years, with like, Jói Fel in television, Rikka and Eyþór, and have somewhat just took care of all the food shows on Stöð 2 and RÚV. And of course also had connections into the blogs.<sup>54</sup>

<sup>51</sup> Ef þú stígur feilspor þá einfaldlega springur Facebook. Og þegar þú gerir mistök, sem getur alveg gerst, þarftu bara að vera heiðarlegur og taka á vandanum. Þannig að traust viðskiptavina, til langstíma, skiptir bara öllu máli. Við erum rosalega meðvituð um þetta. Og einnig, það var búið að svara fólki sem að setti inn gagnrýni á vöruna sína í dag, þetta er bara klárað á hverjum degi.

<sup>52</sup> Já, en enn sem komið er samt, svo við viðurkennum það bara, þá erum við með fallbyssu aðferðina að mestu leyti. En við erum að færa okkur meira yfir í þessa personalisation, þar sem að vandinn er sá, skilvirknin er ekki alveg næg, enn sem komið er og það er hluti af því sem við erum að vinna í núna. Að gera þessa personalisation nógu skilvirka til þess að hún geti verið aðal drifkrafturinn í tölvupóstum.

<sup>53</sup> Í kringum F&F aðdragandann hjá Hagkaup, þá fengum við til okkar ráðgjafa til þess að fara aðeins útfyrir kassann. Þannig að þegar við markaðssettum og launch-uðum því fyrir rúmu ári, þá förum við inni allan bloggheiminn og vorum með opunarhátíð í Kringlunni. Þannig að við förum svolítið útfyrir það sem við höfum verið að gera með Hagkaup.

<sup>54</sup> Já, í sambandi við Hagkaup, það er nú kannski ekki nýtt, þar sem Hagkaup hefur náttúrulega alltaf verið duglegt að sponsa. Hafa alltaf verið áberandi í gegnum tíðina, þú veist með Jóa Fel í sjónvarpi og Rikku og Eyþór og svona soldið séð um alla matarþætti eins og á Stöð 2 og RÚV. Og náttúrulega tengist eitthvað inni bloggið líka.

After interviewing both Guðmundur and Sigurður, the researchers got the feeling that companies like Heimkaup and Hagar are somewhat not quite at the same place as for example Meniga, whereas the whole focus at Meniga on using modern marketing techniques to acquire the exact right customers and creating the feasible value for them. This could perhaps be the case due to both Guðmundur's and Sigurður's long existence in the retail business, where their experience there has perhaps shaped their ideas on how the marketplace works.

It could be of good use for them to opt in to the ever growing technological advantages that are occurring on the market, like for example to be of assistance from Meniga by buying data from them, therefore using helpful modern marketing techniques to better suit their marketing activities.

### **6.2.5 The Icelandic market versus the international markets**

#### *The difference between the Icelandic market and other international markets*

Regarding comparison between the Icelandic market and international markets in terms of utilizing technology in retailing, Sigurður made an interesting point:

We have been waiting for this for the last ten, or twelve years, but it is happening so slowly. So, I am beginning to think that we will not be like other countries. When you look at other markets around Iceland, like the UK market for example, where the use of technology is very big and is growing, there you have communities that travel a lot by trains and undergrounds, and do not own a lot of cars. When people shop and have to go home in a train, you do not want to be carrying a lot of bags, so you shop online and have the items delivered to your house after work. In Iceland, everybody owns a car, and many homes even have two or three cars. You are never longer than five minutes to go to the nearest store, so why would you go into the computer, log in, check in to some boxes and wait in your house for three hours? When it only takes about five minutes to go to the store, shop and get everything back home in less than thirty minutes. You know, what needs to change so we start to shop online?<sup>55</sup>

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<sup>55</sup> Við erum búnir að vera að bíða eftir þessu í tíu, tólf ár en þetta gerist alveg rosalega hægt, og ég er soldið kominn á þann stað núna að ég er ekkert viss um að við verðum eins og aðrar þjóðir í þessu sko, ég hérna, maður þarf stundum að skoða markaðina aðeins í kringum sig, sko. Bretland er t.d. þar sem þetta er rosa stórt og er að stækka mikið, þar ertu kannski með svona samfélög sem eru, menn ferðast mikið með lestum og undergroundi, eiga lítið af bílum og þú veist, ert að versla og ferð í lest í vinnuna, nennir ekki að bera með þér poka í lestinni, þannig að þú verslar þetta á netinu og færð þetta sent heim klukkan fimm. Á Íslandi eiga allir bíla og flest heimili eru með einn og tvo og jafnvel þrjá bíla og þú ert aldrei meira en fimm mínútur í næstu búð, þannig að af hverju ættirðu að fara inná tölvuna, logga þig inn og haka við eitthvað og fara að bíða heima hjá þér í þrjá tíma, þegar þú ert sko fimm mínútur að skjótast úti búð, versla og koma þessu heim á innan við hálf tíma, sko. Þú veist, maður endar soldið þar. Hvað þarf að breytast svo við förum að gera þetta?

Regarding the whole evolution of the Icelandic market, Guðmundur mentioned that:

According to the numbers we are looking at, we see that Iceland is about five to six years behind other countries. It is somewhat related to the financial crisis, everything just stagnated. It is somewhat just a theory.<sup>56</sup>

When Guðmundur was asked about marketing in general, and how it has been developing, he had this to say:

When looking at the Icelandic advertising market, it reflects the situation clearly. Internet advertising in Iceland are both sold differently than in other countries, and they are also different in function. There is no clear “call to action”, they are just weak, and the landings are often ridiculous. That is mainly because we are presenting newspaper ads on the web.<sup>57</sup>

### *The Icelandic market in terms new technological changes*

According to our interviewees, they all agreed that the Icelandic market has all the necessary technological tools to be able to utilize them in today’s market environment. According to Sigurður, he believed that the real question is:

How is this new technology going to work for Iceland? [...] Some of the technical functions may not completely work in Iceland. But we are technically ready for everything. Everybody own a smartphone, some even more than one. And there are nowhere in the world, as many homes that have access to a computer. So we have all the equipment and everything related to that. But it will be very interesting to see in what way everything goes and how it will develop. I have been waiting for so many years for this online shopping thing, but the years go by and nothing is happening. So now I am just relaxing and thinking that it will not be like so many believe it will be. Except in a very limited way in certain categories. I think that is the answer.<sup>58</sup>

<sup>56</sup> Já, svona samkvæmt þessum tölum sem við erum að horfa á, þá erum við sex árum á eftir. Það má eiginlega segja að eftir hrun, þá hafi allt staðnað. Það er svona kenning.

<sup>57</sup> Íslenskur auglýsingamarkaður endurspeglar þessa stöðu mjög greinilega. Vefauglýsingar á Íslandi eru bæði seldar öðruvísi heldur en erlendis og þær eru öðruvísi, svona að upplagi. Það er minna um „call to action“ hlutirnir, þeir eru almennt mjög veikir og lendingarnar náttúrulega oft á tíðum furðulegar, af því að það er verið að birta dagblaðaauglýsingu.

<sup>58</sup> Hvernig hentar þessi tækni Íslandi? [...] Kallar á það að sumar fúnksjónir munu ekki alveg fúnkera, sko. En við erum náttúrulega tæknilega tilbúin fyrir allt, sko. Það eiga allir síma og sumir fleiri en einn og fleiri en tvo. Og hvergi jafnmörg heimili tölvuvædd. Þannig að við höfum allan búnað og allt í kringum þetta. En það verður mjög fróðlegt að fylgjast með í hvaða átt fer þetta allt saman síðan. Hvernig mun þetta þróast og við hérna, ég er búinn að bíða í svo mörg ár eftir netversluninni og það eru svo margir búnir að pressa á mann og segja að núna fer þetta að gerast, en svo líða árin og það gerist ekki jack-shit. Og nú er maður bara farinn að slaka á og segja, ég held að þetta verð ekki svona eins og svo margir halda. Nema að mjög takmörkuðu leiti í ákveðnum categoríum. Ég held að það sé svarið.

Guðmundur did not agree that Icelanders are too few in order for technology to work in modern marketing and retailing. He is convinced that the future is in online shopping.

People are just people, the trends in Iceland are similar to the ones in the UK or in Denmark, without forgetting the countries that are even more north, we all watch similar TV shows and do similar things. But of course, there are some things that progress a little differently, but that is not because of the size of the Icelandic market. I think you can see a market like Denmark or someone similar, and say that we are only five years behind, it will all be here in time.<sup>59</sup>

### 6.3 Summary

Table 4:

*Summary of findings from Study 1*

	<b>Eva (Meniga)</b>	<b>Guðmundur (Heimkaup)</b>	<b>Alma (Persónuvernd)</b>	<b>Sigurður (Hagar)</b>
<b>The benefits of data gathering</b>	I can see exactly what you did.		The privacy of individual's private life is threatened	In terms of marketing, this is the smartest way to go. To understand your customer
<b>Usage of personal information</b>	We never work with personal information that can identify a specific individual		It is reaching new heights that we here did not imagine could happen 2-3 years ago	I think this market is too small and we are too few for it to work, so we have not put any effort into it
<b>Treatment of personal information</b>	The data itself is not anything – it is just how you interpret them, act with them and use them		Companies need to start putting personal data protection in first place	
<b>Value for the customer in terms of data gathering</b>	Basically, we at Meniga help people to get overview of their finances	It is to simplify		

<sup>59</sup> Fólk er bara fólk og íslendingar eru ekkert ósvipaðir og fólk í Bretlandi eða Danmörku eða, tala nú ekki um ef við skoðum norður Evrópu, horfum á svipað efni osfrv. Þannig að auðvitað eru ákveðnir hlutir sem kannski þróast örlítið öðruvísi, en þó ekki svo mjög, hérna á Íslandi útaf smæðinni. En ég held að þú getir bara horft á Danmörku eða einhvern sambærilegan markað og séð að við erum bara fimm árum á eftir, þetta kemur allt saman.



<b>Future of modern marketing</b>	They want to see and understand what the budget is going into	This new generation, that is growing up, it does not need to sit down at the computer to finish a purchase. They do not even own a computer; they only have iPhone	Today, we might have to go in collaboration with Auðunn Blöndal, who has over thirty thousand followers on Snapchat, and has become his own media
<b>Comparison between the Icelandic and the international retail markets</b>		We are the only country in Europe that shops more on foreign online stores than with local online stores	Hagar, this big retailer in Iceland is like a small convenience store to those big international managers
<b>Consumers buying behavior</b>	We are sending out relevant offers to people based on their buying behavior or their consumer pattern	To change a behavior is a very difficult process	We are concerned that knowing the individuals' preferences could be too much for our company
<b>Trust regarding data gathering</b>		Long-term, is very important	It is normal that people worry more and do therefore seek our advice even more
<b>Ways to target the individual</b>	Today, we are basing our analysis on past spending, but I want to be able to predict more	Make the personalization efficient enough, so it can be the main vehicle in the email marketing approach	Personal identifying information are in fact all personally-identified data which you can trace to a specific individual
<b>Icelandic market vs. technology</b>	With new technology, we are looking at a totally different landscape	We are only five years behind; it will all be here in time	We are technically ready for everything
<b>Changes in buying behavior after the financial crisis</b>		According to the numbers we are looking at, we see that Iceland is about five to six years behind other countries	People went over their lists, and stuff that was nice to have, just went of that list
<b>Using mobile application for marketing</b>	And it also needs to be a clear value in the application	A great mobile friendly homepage, you do not get the same experience like in a dedicated app	It is going to cost a lot of money, so you need to think this through

## **7 Study 2: Experiment on the Icelandic grocery retail market**

### ***7.1 Summary of the study***

To be able to get a glimpse of how the Icelandic grocery market is prospering and to see how both companies and consumers are adopting to the newest technological advantages that are occurring on the market, an experiment of a lottery game was conducted in a collaboration with Strimillinn and Ölgerðin. The experiment investigated individuals' willingness to opt-in to a simple sales promotion of a lottery game that took place in the mobile application Strimillinn. The intention of the experiment was to analyze if there could be a possibility to get active users of the mobile application to modify their buying behavior by analyzing if there was a possible increase in sales of Pepsi and Pepsi Max. Strimillinn contributed to the experiment with the usage of its' mobile application as well as being the database source. Ölgerðin contributed by being a prize provider, as it is the authorized dealer for Pepsi and Pepsi Max in Iceland.

This study was indented as an experiment based on consumer behavior analysis in terms of their buying habits in the grocery retail sector. The object of the study was not indented to provide hard core statistical findings, on the contrary, it's object was to analyze the value of Strimillinn's database and to see what their data had to offer in terms of investigating individual's buying behavior.

### ***7.2 Method***

#### ***7.2.1 Participants***

This experiment was conducted on the 498 most active users retrieved from Strimillinn sampling frame. That are the users that periodically scan their receipt to Strimillinn mobile application on normal basis.

An invitation was sent to those 498 users to their smartphone through the mobile application, encouraging them to participate in the lottery game. The participation was optional, and in order to participate, users only had to provide their email address and click on one button to clarify their participation. It was clearly established in the mobile application that no third party sources would get access to personalized information about those who accepted to participate, therefore preserving the anonymity of the users.

Through these means, a total of 75 active members took a stand regarding participation, were 65 users enrolled in the experiment and 10 users refused to participate. Out of the 65 who enrolled, 63 participated in the experiment by scanning receipts on the lottery game period.

This resulted in a final sample that consisted of 63 users, a 12.65% of the original sample of 498 in the beginning.

### **7.2.2 Measurement tool and data gathering**

The measurement tool of this study consisted of the scanned receipts from participants of the experiment as well as the database from Strimillinn. Regarding the scanned receipts, the usage of them as a measurement tool consisted of automatic analysis from Strimillinn where their software analyzed the receipts that had either Pepsi or Pepsi Max in any size or form on it. If a scanned receipt contained either Pepsi or Pepsi Max, it would automatically go into a database. This database was converted into an Excel file, which was used for further analysis.

## **7.3 Research design**

A single case experimental design is a research method used to investigate the influence of a treatment variable conducted in a specific period, and then compared to parallel periods where no treatment has occurred (Barlow *et al.*, 2009). The selected design for this research was A-B-A design with the object of observing the sales volume of Pepsi and Pepsi Max before intervention, in the prior A period ( $A_1$ ), and to look at potential influence of the intervention in period B. The A-B-A design is considered to be the simplest form of experimental analysis in which an intervention is placed after a baseline period, and then withdrawn after a desired period of time (Barlow *et al.*, 2009). The reason for the selection of A-B-A design instead of A-B design is due to the threats of internal validity, since by adding another period without an intervention after the B period can help to reduce those threats (Arnadottir & Karlsson, 2013) and to potentially strengthen the argument that the intervention was the reason for the behavior, not other factors. If it is noticeable that the intervention led to some kind of an improvement, like in this case an increase in sales volume of Pepsi and Pepsi Max, and there is somewhat of shrinkage after the intervention is withdrawn, it is feasible to conclude with high level of certainty that the intervention was the factor responsible for observed changes in sales volume, and that there were not other external factors possibly affecting the buy (Barlow *et al.*, 2009). The dependent variable was one, the total sales volume of Pepsi and Pepsi Max in any form. The independent variable was the lottery game itself. The intention was to see if the independent variable, the lottery game, affected the dependent variable, by increasing the sales volume of Pepsi and Pepsi Max.

## 7.4 Execution of study

### 7.4.1 Description of the execution

The aim of the lottery game was to get the users of Strimillinn mobile application to scan receipts from grocery stores that contained any form of Pepsi or Pepsi Max (e.g. in terms of size of the bottle and desired packaging material) in a two-week period from April 12, 2016 to April 25, 2016 (the total of 14 days, if both the April 12 and the April 25 are counted). With every additional receipt a user scanned in, he or she increased their likelihood of winning. The prize of the game was a year supply of either Pepsi or Pepsi Max, provided by Ölgerðin, a clear potential benefit for the users. To measure if the experiment would be a success or not, an analysis of the lottery game was investigated to see if the lottery game could potentially increase the sales volume of Pepsi or Pepsi Max, and hopefully would lead to a decrease, stagnation or any negative change of sales volume of Pepsi's main competitor products, Coca-Cola. The study is divided into three elements; baseline measurements, intervention measurements; observation after the intervention treatment has been withdrawal.

*Baseline measurement,  $A_1$ :* The prior baseline period,  $A_1$ , consisted of analyzing the sales value and volume of Pepsi and Pepsi Max in all forms (e.g. in terms of size of the bottle and desired packaging) for a period of three months and twelve days (i.e. from January 1, 2016 to April 12, 2016).

*Intervention measurement,  $B$ :* The intervention measurement consisted of observing and analyzing the sales value and volume of Pepsi and Pepsi Max in all forms for a straight two-week period was compiled into one database after the intervention period finished, and compared to the baseline period.

*Follow-up observation after intervention withdrawal,  $A_2$ :* The follow-up measurements consisted of observing if the buying behavior backtracked to the same behavior as in baseline period  $A_1$ , analyzing if it was in fact the lottery game that affected the buying behavior, and not other factors. The follow-up observation also lasted two week in order to be in contrast with the intervention period.

### 7.4.2 Data analysis

Before an actual analysis was conducted, in the stage of the data preparation, all data were thoroughly examined and analyzed if there were any signs of faultiness that needed to be deleted, i.e. cleaning the data. The original database consisted of 19,096 rows in total in Microsoft Excel, since the database contained all products that appeared on each scanned

receipts that were taken into consideration when the database was created. After examining the database and filtering out irrelevant data, a total of 18,618 rows were deleted, leaving out 478 rows that were used in the actual analysis. When cleaning the data was finished, descriptive statistics were analyzed in Microsoft Excel, but more statistically complex analysis was conducted in SPSS (“Statistical Package for the Social Sciences”).

Since the objective of the lottery game was to see if it could potentially lead to an increase in sales volume of Pepsi and Pepsi Max, an analysis was done on both sales volume in terms of total liters sold, i.e. volume, as well as total sales in terms of how much money was spent, i.e. value. Both these figures were calculated for the baseline period ( $A_1$ ) as well as for the intervention period (B), and then compared together to see if the lottery game worked as intended.

To analyze the effectiveness of the lottery game on the sales volume and value of Pepsi and Pepsi Max, four different tests were conducted in SPSS. The tests that were used were independent samples t-test and paired samples t-test.

## **7.5 Results**

Figure 2 below illustrates the weekly sales value and volume of both Pepsi and Pepsi Max as well as for Coca-Cola products, for the period of January 5, 2016 to May 9, 2016. As mentioned earlier, the lottery game started April 12, 2016, so the two dots aligned within the dotted lines on figure 2 illustrates the sales value and volume on the intervention period. For the first week of the lottery game, the sales value was 11,171 ISK for Pepsi and Pepsi Max, compared to 4,693 ISK for Coca-Cola products. For the second week, the sales value was 11,330 ISK for Pepsi products and 7,483 ISK for Coca-Cola products. Comparing the intervention period to the prior baseline period, the sales value on the intervention period is higher than all other weekly total sales. However, week 12 (i.e. 3/22/16 – 3/28/16) on the prior baseline period, is very close in sales value compared to the intervention period. Easter holiday was during that week, so that could possibly be the reason for higher sales value compared to other weeks on the baseline period.

The same outcome appears from analyzing the sales volume in figure 2, but by sales volume, we mean total liters sold per day. One can see that the sales volume of Pepsi and Pepsi Max rises during the intervention period, although peaking a bit down in the second week of the intervention period.

Looking at this figure alone, there are some indicators that the lottery game had effects on the increase of sales value of Pepsi and Pepsi Max, although that alone cannot predict the accuracy of the game itself.

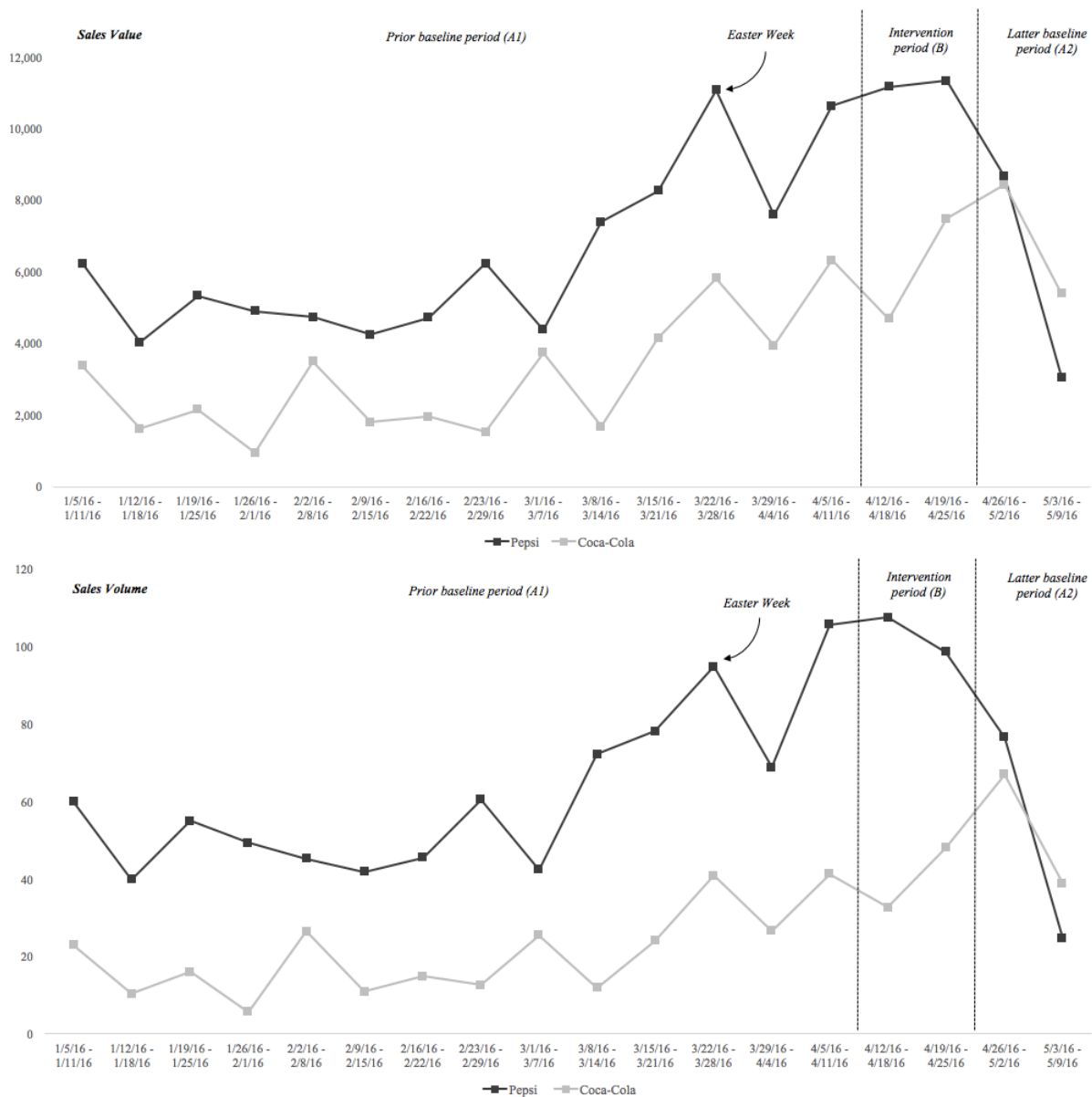


Figure 2: Weekly sales value and volume of Pepsi and Pepsi Max compared to Coca-Cola

When analyzing figure 2 more precisely, one can see that there are other dots on the figure that are worth looking into. The referred dots are for week 14 (i.e. 4/5/16 – 4/11/16), week 17 (4/26/16 – 5/2/16) and week 18 (5/3/16 – 5/9/16). This database alone cannot predict what resulted that week 14 is so close to the same amount of sales value and volume as those

dots that fall within the intervention period. Researchers examined other information in hope of finding reasons for this closeness of dots by searching for possible advertisements of discounts on Pepsi and Pepsi Max, which was not the case. Thus, no additional information was provided in order to predict what resulted this. In terms of the last two dots, one can also wonder what the reason for this decrease in sales value and volume was. It is possible that fewer receipts were collected for this time period, resulting in lower sales value and volume. As said before, these findings alone are not sufficient enough to predict exactly the reason for changes in sales value and volume prior and latter to the intervention period. Therefore, further data is required for more accurate analysis based on statistics.

Table 5 illustrates descriptive statistics for the sales value and volume for Pepsi and Pepsi Max, both for the baseline periods (B1 and B2), as well as for the intervention period. One can see that the mean sales value and sales volume per day for the intervention was higher than the mean value for the baseline period, indicating that the means sales value and sales volume per day was higher when the lottery game took place.

Table 5:

*Descriptive statistics on sales value and volume per day for Pepsi and Pepsi Max*

		<i>Baseline period (A<sup>1</sup> and A<sup>2</sup>)</i>	<i>Intervention period (B)</i>
<b><i>Sales value</i></b>	Total number of days	119	14
	Mean	857.76	1607.21
	Standard deviation	916.69	1040.39
<b><i>Sales volume</i></b>	Total number of days	119	14
	Mean	8.13	14.74
	Standard deviation	9.07	9.64

Comparing previous mentioned findings for Pepsi and Pepsi Max with Coca-Cola's products, descriptive statistics are illustrated in table 6, resulting in similar findings as in table 5.

Table 6:

*Descriptive statistics on sales value and volume per day for Coca-Cola products*

		<i>Baseline period (A<sup>1</sup> and A<sup>2</sup>)</i>	<i>Intervention period (B)</i>
<b><i>Sales value</i></b>	Total number of days	119	14
	Mean	482.37	869.71
	Standard deviation	600.06	683.56
<b><i>Sales volume</i></b>	Total number of days	119	14
	Mean	3.38	5.76
	Standard deviation	4.37	5.68

By only looking at table 5 and 6 alone, it shows that the mean sales value and sales volume per day for both Pepsi and Pepsi Max as well as for the Coca-Cola products, increased during the time of the lottery game.

For the data analysis Pepsi and Pepsi Max, a one-tail independent samples t-test was conducted, intended to answer the research question RQ3, that is, if Pepsi products would increase in sales value and volume in regards to the lottery game. The reason for why this particular test was used was due to the distribution of the data, resulting in a high standard deviation, as can be seen in table 4. Because of this high standard deviation, the mean shown in table 4 becomes less significant. Results showed that Pepsi products increased significantly in sales value during the intervention period according to a critical value of 5%;  $t(131) = 2.85$ ,  $p < 0.01$ . The same applied for sales volume. Results showed that Pepsi products increased in sales volume during the intervention period, according to the same critical value as before of 5%;  $t(131) = 2.56$ ,  $p < 0.01$ .

For the data analysis of Coca-Cola products, a two-tail independent samples t-test was conducted intended to answer the research question RQ4, that is, if the lottery game had an effect on sales value and sales volume for Coca-Cola products. Similar reason was for why this particular test was used as for Pepsi and Pepsi Max, since the standard deviation was high, resulting in a less significant mean, as showed in table 5. Results showed that Coca-Cola products also increased in sales value during the intervention period, according to a critical value of 5%;  $t(131) = 2.25$ ,  $p = 0.03$ . However, when analyzing the sales volume of Coca-Cola



products, the mean of the baseline period is not significantly different from the mean of the intervention period, according to the critical value of 5%;  $t(131) = 1.87, p = 0.06$ .

These two tests for Pepsi and Coca-Cola were conducted independently of the participants, as they were comparing mean sales per day, both in value and volume. However, it is also possible to look at this same analysis dependently on participants. Thus, comparing mean sales per day per participant for baseline and intervention period, using a paired samples t-test, for both value and volume. However, such thing was not possible in this case as the databases provided by Strimillinn were two different databases. The reason for that was due to Strimillinn strong focus on withholding personal identifying information, whereas no participant is marked with a particular label that can be identifiable, resulting that it is impossible to cross drive the two databases together. On the contrary, each participant receives new label for each database that is created, therefore impossible to trace participant's buying behavior between different databases. Nonetheless, such analysis would have been feasible, but would include a large amount of extra work for researches that was not doable due to time pressure since researches received the latter baseline period data late. This makes the statistical findings insufficient in order to solely use them to speculate the effectiveness of the lottery game as they were only intended as a guideline. Thus, resulting in a lack of additional information of participants, such as demographic factors for example, in order to better understand each participant buying behavior.

Results suggests that the lottery game had gradual effect on sales value and sales volume of Pepsi and Pepsi Max although that alone is not enough to speculate accurate findings, as other variables could have been responsible for the increase in sales value and volume. Therefore, further research is needed in order to obtain stronger assumption of the effectiveness of a lottery game like this, and one should look at this study as a certain preliminary test for stronger studies in the future. Nonetheless, it is interesting to analyze the potential that Strimillinn can provide to the Icelandic marketplace and how they could update their activities and prosper to enhance their database in order to create more accurate data. In conclusion, it is not necessarily the increase in sales value and sales volume of Pepsi and Pepsi Max that matters the most, but to understand the value of the data that Strimillinn provides and what potential it can give to the Icelandic mobile application users.

## 8 Discussion

### 8.1 General discussion of findings from Study 1 and Study 2

Study 2 revealed that participants of the experiment bought more Pepsi and Pepsi Max during the intervention period compared to the baseline periods. One can predict that the lottery game had an effect on sales value and volume of Pepsi and Pepsi Max, since both factors increased on the intervention stage. Nonetheless, these findings alone cannot stand solely in order to conclude that it was in fact the lottery game that resulted in higher sales value and volume. There could have been others reasons factoring the increase. However, it is interesting to look at the results and to see that the usage of gamification in a mobile application can potentially affect how consumers shop, even if only looking at one product at a time.

Although it is not clear, researchers believed that the ones that opted in to the lottery game were at some level individuals who had stronger preference for Pepsi or Pepsi Max over Coca-Cola products in general, and would therefore be more likely to participate. When analyzing the database as a whole with data for all the 498 most active users, the sales values of Coca-Cola was higher then for Pepsi and Pepsi Max. However, when filtering out the participants of the experiment, Pepsi and Pepsi Max had higher sales, both in value and volume. The reason for why those participants decided to opt in was likely because that they saw some value in entering to the lottery game, as it increased their value, and they were therefore willing to buy more Pepsi and Pepsi Max during the intervention period. The participants were then ready to hand out some personal information about themselves, i.e. their email address, in order to have the chance of winning. This relates to what Alma and Eva mentioned in Study 1, that there needs to be a clear value for the user in order for him to give out information about himself. If the user knows what he can expect from opting in, he is often more relaxed when it comes to the data gathering. At some levels, this relates to the findings from the research conducted by Shkolvski *et al.* (2014), where it was stated that users still use their mobile applications in spite of the awareness and concerns of the data collection.

This lottery game also created value for the company, i.e. Strimillinn, which is not less important than value creation for the user. The experiment consisted of getting users to scan in more receipts, like mentioned before, in order to increase their likelihood of winning. This results that more receipts exist in Strimillinn database, hence, their database increases. With every additional receipt that now exists in the database, the better database that Strimillinn has becomes. Therefore, they can offer better service with more products for users to compare to,

more stores and more price ranges. This lottery hopefully did help Strimillinn to build up their project and making it better in the future. This value creation for companies relates to the discussion from Study 1 with Eva when she mentioned that often when companies go into isolated marketing activities, like focusing on the consumer, it often generates high amount of revenue for the company.

## ***8.2 Comparison of the Icelandic market and international markets***

With the two studies that were conducted in this thesis, one can see that the mobile application development is slowly reaching higher grounds in Iceland. This results that it is becoming more valid to the Icelandic market and that Icelandic users are increasingly willing to opt in to for example a lottery game based in a mobile application.

In regards to the execution of Study 2, modern technology like a mobile application was used in order to get to the users, which relates to the perceptive that Guðmundur and Eva mentioned, that many things in marketing are moving towards being digital and technologically based, and that the Icelandic market is in fact technologically ready. But as Sigurður mentioned, due to the limited size of the Icelandic population and location, the country is maybe not ready for high technological wonders like for example shopping your groceries through a mobile application, like in previous mentioned Tesco example in chapter 3. This perception reflects in the lottery game. In order for users to participate, they had to go by themselves to the nearest store and buy a Pepsi or Pepsi Max, which is relatively easy in Iceland, as Sigurður mentioned. So, it is not that we Icelanders are not technologically ready for various technological factors, it is just perhaps that maybe we do not have to in some situations.

## ***8.3 Strimillinn as a case study***

In the beginning of the thesis, Strimillinn was introduced as a case study, where researchers conducted an experiment as has been mentioned, as well as analyzing the value of Strimillinn's data and the potential they have to remedy their database function and usage. Although Strimillinn provides accurate data of consumer's buying behavior and reveals exactly what each individual bought, the identification of the data is lacking. For example, when looking at the findings from Study 2, some receipts contained both a Pepsi product and a Coca-Cola product. Therefore, one cannot generalize that each participant was just buying for himself or herself only. With the lack of demographic variables such as age, occupancy, marital status and family size, Strimillinn cannot know for sure if each individual is buying Pepsi and Coca-

Cola for himself or if some family members prefer Pepsi while others prefer Coca-Cola. In addition, background information can give a company a better stand in knowing the reason for why a certain individual buys certain products and excluding others.

However, the value of the data revealed that the lottery game did in fact have some impact on the increase in sales value and volume for Pepsi and Pepsi Max, as it prevailed on participants to buy more Pepsi and Pepsi Max. Therefore, it did increase the consumption of Pepsi and Pepsi Max on the intervention period. Strimillinn could enhance their value creation by adopting more precise data on customer behavior analysis. Nonetheless, when comparing this study with other ones conducted in the grocery retail sector the mobile application of Strimillinn can provide more accurate data on individuals than conducting an experiment inside a store and only analyzing the customers altogether. (Sigurdsson, Saevarsson & Foxall, 2009; Sigurdsson, Larsen & Gunnarsson, 2014). By being able to get detailed idea of each individual, although the data from Strimillinn cannot identify this individual, the accuracy of the effectiveness of the experiment is providing companies with the chance of following through each individual's buying behavior, instead of only analyzing the group as a whole. Strimillinn is therefore in better shape to analyze individual's buying behavior compared to companies that conduct in-store experiments that cannot focus on one individual at a time.

In addition to previous findings above, researchers believed that a collaboration between a company like Meniga and Strimillinn would be an ideal pair, as they counterbalance each other. Meniga, which collects accurate financial information from users which includes each shopping basket, and Strimillinn, which can know exactly what lies within each shopping basket. Meniga would therefore provide the demographic variables as well as listing all transactions from each user, and Strimillinn would contribute to the equation by revealing the exact content of each shopping basket. This collaboration could enhance both Meniga's and Strimillinn's business model, as they could better service companies that buy information from them in order to personalize relevant marketing messages.

In conclusion, it is clear that in order to predict the effectiveness of an experiment based on gamification, a detailed customer behavior analysis is necessary, in order to receive more accurate data on the buying behavior of each individual.

#### ***8.4 Executive conclusion***

Combining all the findings together and looking over the research questions that were listed up in the beginning of the thesis, the following can be mentioned. In terms of RQ1: "How is the

development of modern marketing strategies through mobile devices?”, the key findings suggested that the Icelandic market is slowly reaching the capabilities of international markets in terms of mobile devices. Results from Study 1 suggested that the Icelandic marketplace is technologically ready for new marketing activities such as using mobile applications, however, there are mixed feelings of how small the Icelandic market is in order to adopt to those technological advantages.

In terms of RQ2: “How can data gathering be beneficial for companies today?”, it has a clear value for companies to know their consumers’ needs, wants and preferences, as it provides opportunities to personalize each marketing message suited for each individual, as Study 1 revealed. By gathering relevant data about consumers in a decent manner, companies can better focus on different individuals and provide them with products or services that suits their needs and wants.

Study 2 then aimed at answering both RQ3 and RQ4. Results from Study 2 showed that it is possible to influence a predetermined group of consumers to increase their consumption of a product like Pepsi and Pepsi Max, as statistics showed that the participants of the study did in fact increase their consumption during the intervention period, compared to the baseline periods. In addition, while the consumption of Pepsi and Pepsi Max increased during the intervention period, the consumption of Coca-Cola products was also affected, therefore, answering RQ4 that it is possible to use gamification to affect the consumption of the substitute product. However, those findings alone are not sufficient enough to fully predict that the lottery game was the only thing that effected the consumption, as other factors could have been reliable at some levels. More data information is needed in order to be able to predict more thoroughly how a company can use a marketing tool like mobile application to modify user’s buying behavior. In conclusion, further researches are necessary in order to predict with more accuracy the influence that one lottery game can have on consumption of a particular product.

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