How can Augmented Reality add value for companies –
benefits and challenges of its application in marketing

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HOW CAN AUGMENTED REALITY ADD VALUE FOR COMPANIES – BENEFITS AND CHALLENGES OF ITS APPLICATION IN MARKETING

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ABSTRATO

O presente estudo visa adquirir um melhor conhecimento das razões por detrás da utilização de AR em marketing. Para além do sucesso promissor sugerido pela literatura, existe ainda o risco de que Realidade Aumentada não adiciona valor à empresa. Marketers têm de decidir se e como a tecnologia pode ser utilizada em prol da empresa. Um estudo caso com três empresas diferentes que utilizam ou utilizaram Realidade Aumentada no seu negócio foi desenvolvido. Os dados foram recolhidos através de entrevistas semi-estruturadas com especialistas de marketing de cada empresa. Com base nos resultados das entrevistas, as razões pelas quais as empresas usam Realidade Aumentada são: a crença de que existe a necessidade dessa tecnologia, uma melhor comunicação com os seus clientes, a necessidade de transparecer inovação, e uma diminuição da taxa de devolução – e um aumento na taxa de conversão. De facto, este estudo demonstra que, após a implementação de Realidade Aumentada, duas das três empresas registaram um melhor desempenho no mercado em termos de um aumento da procura, ou de uma taxa de conversão superior, mais tempo dispendido na página do produto com a ferramenta de Realidade Aumentada, e uma diminuição da taxa de devolução. Contudo, um caso demonstrou também que, apesar de um melhor desempenho no mercado, a Realidade Aumentada pode contudo falhar devido a razões como problemas técnicos.

Palavras-chave: Realidade Aumentada, Tecnologia, Marketing, Ferramenta de Marketing
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**LIST OF SYMBOLS, ABBREVIATIONS AND ACRONYMS**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AR</td>
<td>Augmented Reality</td>
</tr>
<tr>
<td>B2B</td>
<td>Business-to-Business</td>
</tr>
<tr>
<td>B2C</td>
<td>Business-to-Consumer</td>
</tr>
<tr>
<td>etc.</td>
<td>et cetera</td>
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<tr>
<td>FGV EBAPE</td>
<td>Fundação Getulio Vargas Escola Brasileira de</td>
</tr>
<tr>
<td></td>
<td>Administração Pública e de Empresas</td>
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<tr>
<td>QR-Code</td>
<td>Quick Response Code</td>
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ABSTRACT

The present study aims to gain a better understanding of the reasons influencing the use of AR applied in marketing. Besides its promising success in the literature, there is still a risk that Augmented Reality does not add value to the company. Marketers must decide whether and how the technology can be applied in favor of the company. A case study research with three companies using or used Augmented Reality in their business was applied. The data were collected via semi-structured interviews with marketing experts’ from each company. Based on the findings of the interviews, the reasons why companies applied Augmented Reality are: the belief that there is a need for it, a better communication with their customers, the need to appear innovative, and a decrease in the return- and increase in the conversion rate. In fact, this research revealed that after the implementation of Augmented Reality two out of three companies had a better market performance in terms of an increase in the demand, or a better conversion rate, more time spent on the product page with the Augmented Reality tool, and a decrease in their return rate. However, one case also demonstrated that even though an increasing market performance, Augmented Reality can still fail due to reasons such as technical issues.

Keywords: Augmented Reality, Technology, Marketing, Marketing tools
1. INTRODUCTION

Digital changes occur faster than ever. Accenture (2017) claims in its “Technology Vision 2017” report that people no longer adapt to technology, as now it is the other way around - the technology is adapting to people (Accenture, 2017). Therefore, a significant impact on how companies add value to their business is today’s technology boom which goes in line with its customers’ increasing digital interest (Kotler et al., 1999). Customers want to be entertained more and gain personal experiences (Accenture, 2014; Deloitte, 2015). One possibility to meet the expectations of the “digital natives”¹ may be reached through the use of the Augmented Reality² technology in marketing (Scholz & Smith, 2015). Augmented Reality, or AR is one of the latest technologies crucial for marketers (DeMers, 2016) and its market is expected to rise up to $100 billion in total market worth by 2020 (Abi research, 2015). Therefore, in order to increase the market performance of businesses the technology is considered to be a fundamental tool for marketers (Jin & Yazdanifard, 2015). Amongst others, marketers can apply this technology in their campaigns from external app experiences, where apps are used to promote the company (DeMers, 2016) to active prints/packaging or magic mirror experiences (Scholz and Smith, 2016).

This study is divided into 8 chapters. The introduction includes the contextualization of the problem including the main research question with its sub-questions, the objectives, and relevance of the theme selection. Afterwards, in the literature review in chapter 2 the researcher will come up with a proper definition of Augmented Reality for this study, give an overview of the AR concept and its application in marketing. Next, chapter 3 and 4 reveals benefits and challenges regarding the use of AR as a tool in marketing. After the literature review, the research methodology will be addressed in chapter 5. Starting with the research design, which includes the justification of applying a case study method for this research, the qualitative data collection and procedure of the analysis, as well as the selection of the cases for this study. Afterwards, in chapter 6, the qualitative data will be analyzed and compared with the results of each company. Then, the main conclusion in chapter 7 will relate the findings of the literature review with the ones of the qualitative data, followed by limitations, and indications for further research. Finally, in chapter 8, the major findings of this research

¹ Digital natives describes a new generation that have grown up using digital technology such as mobile phones (Accenture, 2014)
² AR creates an artificial world where people are able to experience and explore interactively themselves. The real world supplemented to create a completely artificial environment (Höllerer & Feiner, 2004)
will be used to suggest recommendations for companies and in particular marketers in the decision making process regarding the implementation of AR as a tool.

1.1 RESEARCH PROBLEM
While the use of AR in companies is expected to increase (Baya & Sherman, 2016; Briggs, 2016; Reportlinker, 2016) there are still doubts if and how this technology adds value to the company. Marketers must decide whether and how new trends such as AR can be used in favor of the company. Particularly in the area of marketing it is significant to change and adapt to customers’ needs by considering new trends (Kotler et al., 1999). But acting always accordingly is a challenge that marketers are frequently faced with, and not always succeed in. Furthermore, only few organizations are aware of the potentials of AR as it is still at its initial phase of adoption (DeMers, 2016; Economist, 2016; Martin, 2016; Jin & Yazdanifard, 2015; Imbach, 2016). In order to address these issues, this study might provide an explanation of how AR in marketing can be favorable for the company by addressing the following research question:

*How can AR applied in marketing add value for the company?*

This research should show some benefits of AR used in marketing, whereas the above-mentioned research question is examined in more details. Therefore, several propositions have been developed for a solid discussion on the phenomenon.

1. What are the advantages that companies envisage in the use of AR in their marketing activities?
2. What are the challenges that companies envisage in the use of AR in their marketing activities?
3. How does AR affect the business after the implementation?

1.2 RESEARCH OBJECTIVES
The purpose of this study is to gain a better understanding of the reasons influencing the use of AR applied in marketing. In fact, further studies showed that AR applied in marketing as a tool leads to an increased performance as it creates customer satisfaction, a positive word-of-
mouth (WOM), and reaches a bigger audience that goes in line with a greater market share (DeMers, 2016; Martin, 2016; Jin & Yazdanifard). However, there are still only a few companies that apply the AR technology. This research tries to analyze the AR concept as a whole, and its usability from the marketing point of view. More important, it aims at coming up with significant advantages, disadvantages and challenges of the adoption of AR. Furthermore, this study analyses real cases of companies that use the technology in their marketing strategy.

1.3 RELEVANCE OF THE TOPIC
AR in marketing is relevant, as the marketing industry always needs to change and adapt regarding to consumers’ needs to capture the chosen audiences’ attention (Jin & Yazdanifard, 2015). It describes the ability for marketers to engage better with their customers and obtain important data that was impossible to track before. Hence, with this technology the marketer’s job will be much easier (Martin, 2016). Furthermore, it is said that marketing together with advertising and sales has the largest application opportunity for AR (Baier et al., 2015). Because AR applications are able to support customers’ decision regarding the product by showing them additional product information with virtual content (Adhani & Rambli, 2012). The topic is also relevant, because AR used in marketing already showed that it has a huge potential, even it is still in its initial phase (DeMers, 2016; Martin, 2016; Jin & Yazdanifard, 2015; Imbach, 2016). Well-known and recognized organizations and associations over the world are now searching for academic papers about AR ((Extra)ordinary China; Universidade Lusófona and Faculdade de Belas Artes; Association for the Study of the Arts of the Present). Therefore, there is a lack of research studies about AR applied in marketing.

2. LITERATURE REVIEW

2.1 AUGMENTED REALITY DEFINITION
Referring to the underlying topic of this research, the comprehension of the definition Augmented Reality, or AR is necessary. Augmented Reality is handled differently in the literature. Table 1 with different definitions should help to clarify the conceptions.
<table>
<thead>
<tr>
<th>Author</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Azuma et al. (2001)</td>
<td>“An AR system supplements the real world with virtual (computer-generated) objects that appear to coexist in the same space as the real world. (…) We define an AR system to have the following properties: combines real and virtual objects in a real environment; runs interactively, and in real time and registers (aligns) real and virtual objects with each other.”</td>
</tr>
<tr>
<td>Bimber and Raskar (2005)</td>
<td>“(…) In contrast to traditional Virtual Reality, or VR, in AR the real environment is not completely suppressed; instead it plays a dominant role. Rather than immersing a person into a completely synthetic world, AR attempts to embed synthetic supplements.” (…) Tracking, display technology, and real-time rendering are building blocks for AR.</td>
</tr>
<tr>
<td>Buchholz (2014) (as cited in Information Science Reference)</td>
<td>„By Augmented Reality, (…), we understand the computer assisted augmenting of perception by means of additional interactive information levels in real time. The distinction between AR and Virtual Reality: in the case of Virtual Reality, the user is totally immersed in a virtual world that has no connection with reality.”</td>
</tr>
<tr>
<td>Carmignaini et al. (2011)</td>
<td>“Augmented Reality (AR) is a real-time direct or indirect view of a physical real-world environment that has been enhanced/augmented by adding virtual computer-generated information to it. AR is both interactive and registered in 3D as well as combines real and virtual objects.”</td>
</tr>
</tbody>
</table>
Reitmayr and Drummond (2006)  “(...) Augmented reality (AR) is a promising user interface technique for mobile, wearable computing and location-based systems.”

Zhou et al. (2008)  “Augmented Reality (AR) is a technology which allows computer generated virtual imagery to exactly overlay physical objects in real time. Unlike virtual reality (VR), where the user is completely immersed in a virtual environment, AR allows the user to interact with the virtual images using real objects in a seamless way.”

Source: authors quoted with additional remarks by this treatise’s writer

In the following the listed definitions in table 1 will be explained and discussed. Thus, at the end of this chapter the concept of AR for this study will be defined.

**Augmented Reality vs. Virtual Reality**

Bimber and Raskar (2005) claim that compared to Virtual Reality, in AR the real environment plays a major role of AR. Furthermore, Bimber and Raskar (2005), Buchholz (2014) and Zhou et al. (2008) agree that regarding Virtual Reality, the user is completely immersed in a virtual world with no connection to reality. However, AR instead connects the virtual world with the reality. Thus, the user is able to interact with the virtual images by using real objects.

**Combination of real world with virtual world**

All above listed authors agree that the main characterization of AR is the combination or supplementation of the real world with virtual objects. The virtual objects become visible in the same area as in the real world.

**3D and interactivity in real-time**

Another major characterization mentioned by all authors is that the AR technology is interactive and in real-time. And so - computer generated virtual imagery overlays physical objects in real time. Moreover, Azuma et al. (2001), Carmignaini et al. (2011), Reitmayr and Drummond (2006), and Bimber and Raskar (2005) mention the appearance of AR being registered as 3D. Furthermore, Bimber and Raskar (2005) and Reitmayr and Drummond
(2006) consider tracking or location based systems as another important characterization of AR.

Comparison of the definitions
It can be briefly ascertained that the applied definitions of AR show several similarities. Contradictory opinions and major differences are not obvious.
In this study, we will use the following definition:

Augmented Reality is an interface technique (Azuma et al., 2001; Buchholz, 2014; Carmignaini et al., 2011; Reitmayr and Drummond, 2006; Zhou et al., 2008) for mobile, portable computing and location based systems (Reitmayr and Drummond, 2006) that overlays the real world with virtual objects in the same area as in the real world (Azuma et al., 2001) and in real time (Azuma et al., 2001; Bimber and Raskar, 2005; Buchholz, 2014; Carmignaini et al., 2011; Zhou et al., 2008).

In the next section 2.2 the AR concept is explained more comprehensively.

2.2 AUGMENTED REALITY CONCEPT
The AR technology gets in touch with the concept of Virtual Reality as follows: It aims at creating an artificial world where people are able to experience and explore interactively themselves. The real world is in fact supplemented to create a completely artificial environment (Höllerer & Feiner, 2004). As demonstration a vivid example of AR here: indoor shoppers see how a lego set looks when putting the pieces together before even opening the package (Augment, 2015). However, VR is very immersive, as the user will experience an isolated reality, whereas AR is only partly immersive. Meaning that in the case of AR, it is possible to look through and around artificial objects of the expanded layer (the App Solutions, 2016). According to the Digi-Capital fundamental Augmented/Virtual Reality Report Q2 2016, the AR/VR market is going to expand up to $120 billion by 2020. The figure 1 below illustrates the revenue forecast of Augmented and Virtual Reality. It clearly shows that in the future both VR and AR are expected to rise. Though, the AR market is going to dominate. In the year 2020 the market for AR is expected to increase fourfold ($90 billion) compared to the one of VR ($30 billion). Others, such as ABIresearch (2015) estimate the AR industry to reach $100 billion by 2020.
With this knowledge marketers are able to better understand how AR can be applied as a tool for specific purposes in several distribution channels (Javornik, 2015). The main objective of AR is to integrate the computer generated object in a way that the user is not able to distinguish between the virtual and real world (Mekni & Lemieux, 2014). The usual devices of AR are displays, input devices such as wireless wristband or smartphones, tracking and computers (Carmigniani et al., 2010). However, due to advances in processor performance, device equipment (e.g. camera, video, and GPS) and display technology the interest in AR on mobile devices such as smartphones and tablets increased (Daponte et al., 2014). Mobile-AR even reflects that smart mobile applications will become more mature (Pryss et al., 2016). The phone can be used as a pointing device, for instance for Google Sky Map where the user points the smart-phone in the direction of the planets or stars in order to get the name of what he is looking for. Tracking devices are for example digital cameras and/or other optical sensors, GPS, accelerometers, and wireless sensors (Carmigniani et al., 2010).

There are many formats in which AR content can exist, such as text, pictures, videos, and animations (Scholz & Smith, 2016). Application fields of AR are for example entertainment and games, cultural heritage, medical, education and training, navigation and tourism, social networking, and marketing (Adhani & Rambli, 2012). The most common types of AR...
applications are advertising and commercials, entertainment and education, medical, and mobile applications (Carmigniani et al., 2010). But marketing, advertising and sales are considered as the largest application opportunity for AR. A technology like that makes it possible to engage better with customers and enhance their experience with gamification and “virtual trial and product education” (Baier et al., 2015). However, this study aims at analyzing how AR can add value when using at as a tool in marketing. That’s the reason why only the application in the field of marketing is discussed more extensively.

2.3 AUGMENTED REALITY IN MARKETING

Previously, the application of digital content in marketing was limited. Users were encouraged to visit the websites, or QR codes were tacked on posters. The next stage towards AR was the possibility for users to hold up their phones or iPads to an advert. After, the user was directed to a website, video or game content on top of an image (The Economist, 2012). Nowadays, AR is presence in several different industries, but its presence in marketing is clearly dominating (Augment, 2016). Augmented Reality is helpful to provide users a cleaner sales funnel, but also making the marketer’s job easier (Martin, 2016). Stephen O’Mahony (2015), created a model that establishes an approach to the implementation of AR. The proposed model emphasizes the attributes of AR and highlights the robustness of traditional best practice values of its implementation. The figure 2 below illustrates the authors approach to AR deployment in marketing communication.
The author states that a fundamental principle of the model is that effective AR implementation starts at the same time as the decision of whether or not to utilize the medium for a given communication endeavor is made. The first consideration concerns its communication objectives and the extent to which they are in line with the attributes of AR. By diverse media channels, practitioners have several options to direct at a potentially wide spectrum of objectives. The outcome on the right-hand side of the model, leads to the suggestion that an alternative medium should be used in the campaign for which AR has been considered. The left-hand side of the model aligns the objectives regarding AR and the referring medium is considered to be more effective than alternative channels. After the decision to implement AR in a communication campaign is made, the focus turns to the execution of the stimulus. However, the author emphasizes that communication must still achieve a balance between compliance of traditional best practices and profiting from distinctive properties due to AR.
PokémonGo and IKEA are good examples of their use of this technology and both players show the world for what is to come. PokémonGo uses real locations to encourage players to search far and wide in the real world to discover Pokémon. It allows users to find and catch more than a hundred species of Pokémon with their iPhone or Android devices while exploring the surroundings (Pokemon.com, 2016). The app, launched on July 6th, had over 40 million daily active users by the end of its first month and generated revenue over $35 million dollars in the first two weeks (Simon, 2016) (see Appendix I for a figure to illustrate how PokemonGo is applied).

Another example of the successful implementation of AR is IKEA (see Appendix II how the IKEA app looks like). Customers need to first download the free IKEA app on their mobile devices. Next, the smartphone or table camera is used to zone in on the selected product pages of the catalog. Then, the user needs to place it on the spot where he/she wants to put the furniture. The approximate dimensions of the virtual items are based on the size of the physical, real-world IKEA catalog. Following, the product appears in the frame and can be rotated, repositioned and manipulated and finally, a virtual version of the furniture with the room in the background is shown on the screen (Ridden, 2013).

It can be assumed that amongst others, the above mentioned examples of AR, can inspire marketers and agencies by their success and motivate them to use AR in their next consumer focused campaign (Augment, 2016).

However, marketers can utilize the technology in other ways, where apps are used to promote the company. The author claims that these apps don’t need to stick to a specific function of the business but need to raise brand awareness and familiarity of the brand. A few ways how companies will be able to apply AR in the future are by:

- using **coupons, discounts, and offers** to incentivize users to visit the physical location;
- **searches and trials**, by giving users a more interesting in-store experience with digital interactions within the store;
- **seamless experiences**, by combining online shopping and physical shopping experiences such as shopping online in the physical store (DeMers, 2016).

In addition, according to Scholz and Smith (2016), there are four typical AR marketing paradigms that can be used in the campaign: Active print / packaging, bogus window, geolayer and magic mirror. Following these paradigms will be explained more in detail.
Active prints / Packaging

Active prints or packaging can be used in magazines and out-of-home advertisements, product packaging, catalogues etc. The user triggers digital objects. An example is the IKEA catalogue, which is augmented with furniture that can be projected into a user’s room.

Bogus window

It augments the space in view of the user. Normally, devices such as TV screens with digital objects that look like normal glass windows are used. The AR experience is activated for the user by viewing through the bogus window. The user is not able to see himself as part of the augmentation as the augmentation takes place behind the bogus window. An example therefore is “The Walking Dead” tram stop. A live street scene is augmented through a hidden screen in the stop fixture with towards coming zombies (See Appendix III the AR campaign for “The Walking Dead TV show in Vienna, Austria).

Geo-Layer

Is used to augment the space around the user with digital objects that can be linked to specific geolocations. Usually the applied devices therefore are the users own devices. For instance, the Tokyo Aquarium guide. Digital penguins guide the consumers towards the attractions.

Magic mirror

Digital objects such as TV screens that may be disguised as mirrors augment the space or objects around the user or even himself. The user is able to see himself as part of the augmentation in the digital mirror but he can also watch his actions on the screen from the perspective of a third person. Timberland for example uses the magic mirror for its in-mall campaigns. Users are able to virtually try on shoes and clothing by using digital screens in the shop windows (Scholz & Smith, 2016).

3. BENEFITS OF AUGMENTED REALITY

Through AR new benefits and possibilities will arise in marketing. The AR technology enables marketers to bring the brand alive in a new way. So, providing customers interactive, three-dimensional, and engaging experiences with their brand. AR is able to provide customers something that competitors are not offering yet. Moreover, through personalization
and virality the technology enables companies to connect better with their actual clients. In addition, as a brand being unique or different by fun with interactive features makes it possible to reach a bigger audience and acquire new customers. Furthermore, being interactive and entertaining by creating a surprise factor for customers will motivate customers to use the AR technology again and again. Besides, utilizing interactive media such as AR in marketing improves the learning effect for marketers as they learn how to adjust and improve based on meaningful interactions of customers. Last, but not least, AR demonstrates to have a positive impact on long-term purchases and presents a real value for marketers by seeing the analytical side of their interactive campaigns. Following the above-mentioned benefits will be explained more in detail.

3.1 BRAND EXPERIENCE
It is claimed that there is a strong correlation of brand experience and AR marketing. The reason for it is the ability of AR to present the brand in a new way, and offer customers interactive, three-dimensional, and engaging experiences with brands (Cuddeford-Jones, 2009). Brand experiences are subjective, internal consumer responses (e.g. feelings, sensations, and cognitions) and behavioral responses triggered by brand-related stimuli (Brakus et al., 2009). By letting customers experience products with AR might cause an unforgettable memory for them. For example retailers letting customers experience their clothing items through an AR “Magic mirror” as explained in chapter 2.3. On the one hand it is very convenient for customers to see how clothing items look on them without going to dressing room and trying them on. On the other side customer might like this experience with the Magic mirror so much that they “try on” items that they would not if they would not have this experience with AR.

3.2 CUSTOMER CONNECTIONS AND HIGHER REACH
Being unique or different by fun with interactive and fascinating features capture targeted audiences and prospects and reach even a bigger audience (Jin & Yazdanifard, 2015). By allowing customers to upload their own media onto social media, aids to create content. Through personalization customers feel more engaged and connected (Jin & Yazdanifard, 2015). With AR marketers can provide their consumers something that competitors do not offer yet (The app solutions, n.d.). Moreover, due to the given opportunity of uploading own media, such as images, creates a very personalized piece of social media for the user (Smith, 2014). Therefore, the user is able to express his individuality and is by far more engaged than
by a standard image or video (The app solutions, n.d., Smith, 2014). Besides, setting up a new trend means going viral. For instance sharing content on YouTube creates brand awareness and gives positive word of mouth (WOM) (Smith, 2014). Furthermore, the fact that the content is personalized and the novelty of AR enhances the user’s desire to share their content to other potential customers. Thus, AR increases the acquisition of new customers (Jin & Yazdanifard, 2015; The app solutions, n.d., Smith, 2014).

3.3 LEARNING EFFECT THROUGH INTERACTIVITY

Interactivity in marketing is becoming more important and might be one of the most researched topics (e.g. Mollen & Wilson, 2010, Liu & Shrum, 2002, Coyle and Thorson, 2001). Reasons for that are amongst others two features of communication: the ability to address an individual, and to gather and remember the responses of that individual (Jin O. & Yazdanifard R., 2015). Interactivity is considered as a two-way communication process between a sender and a receiver (Cho & Leckenby, 1999). Being interactive and entertaining by creating a surprise factor for customers will motivate users to use the AR technology again and again. Additionally, it will stimulate other users to do it as well (Jin O. & Yazdanifard R., 2015). Besides, a huge benefit to utilizing interactive media such as AR in marketing is the learning effect for marketers. Because marketers learn how to adjust and improve based on meaningful interactions of customers (Augment, 2016).

3.4 INCREASING SALES AND MEASURABLE ANALYTICS

It can be assumed that most users do not have the expertise and are not able to create a complex video such as AR is able to do. Hence, AR gives them the opportunity to create a quality piece of content (Smith, 2014). Thus, engaging content with AR in marketing towards the target market results in higher sales and reach, as mentioned already before (Augment, 2015). Customers are scanning products in order to discover hidden benefits through AR. This can often become addictive and used by customers again and again. Furthermore, AR in the E-Commerce experience helps on the one hand shoppers to get more familiar with products and on the other hand it is useful for marketers in order to track the results of the interactive media campaign (see how often users are engaged with the campaign, where and how long). It presents a real value for marketers by seeing the analytical side of their interactive campaigns in order to chart their success (Augment, 2016).
4. CHALLENGES OF THE USE OF AUGMENTED REALITY IN MARKETING

While there are many opportunities for companies using AR in their marketing strategy, there are also several concerns and obstacles that have to be overcome. To sum up, those include the consumer readiness and familiarity with the technology, because consumers need to fully understand how the technology works. Then, how the company applies AR in their marketing strategy might not be useful for the enterprise and users of the technology might get tired of it very quickly. Thus, the technology might add no value for the company. In addition, as the technology is still at its early stage, there exist several technical barriers. These are amongst others regarding the hard- and software and limitations of the consumer’s mobile devices. Following, the mentioned challenges will be discussed more in detail.

4.1 SOCIAL ACCEPTANCE AND ADOPTION

As already mentioned, the AR technology is still at an early stage (DeMers, 2016; Economist, 2016; Martin, 2016; Jin & Yazdanifard, 2015; Imbach, 2016) and consumer readiness is an important factor that might encourage companies to implement Augmented Reality (Kevin et. al, 2003). As quoted from the “AR for Enterprise Alliance’s” (AREA) Christine Perey, the majority did not get familiar with AR. Moreover, she claims that a serious issue is the avoidance of creating hype or expectations that AR may not meet (Baya & Sherman, 2015). Consumers need to fully understand the AR technology (Financial times, 2015). Furthermore, there are several limitations for the user such as HMDs and other wearable equipment like data-suits and data-gloves that need to be developed to be easier for the user (Mekni, Lemieux, n.d.).

4.2 REAL VALUE ADDING

Another important aspect that marketers need to consider is if the applied AR technology adds real value. Users of the ad might get tired of it very quick. At first glance it might sound useful to have an app that overlays information and promotions on the mobile device when pointing the camera towards a store or the products in that store (Javornik, 2016). However, marketers need to make sure if consumers are going to hold their mobile devices in the air on

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1 An HMD can be a pair of googles or a complete helmet. In front of each eye is a small monitor. As there are two monitors, images appear as 3D. Most HMDs have a head tracker in order to let the system respond to head movements (webopedia, 2017).
the street to scan the QR-codes and if they really want to shop by scanning every product (Economist, 2016; Javornik, 2016). Implementing an AR application might cause high and unnecessary costs for the company. According to R-Style Lab, an average custom AR app costs around US$ 30 thousands (Shestakova, 2015). In addition, economic impacts regarding new innovations such as AR are difficult to predict. Especially in the introduction phase. It will not be clear where to use the technology. Moreover, the extent of its adoption is not really obvious (Christensen et al., 2016).

4.3 TECHNICAL BARRIERS

As AR systems need to deal with a huge amount of information, the hardware should be small, light, easily portable and fast enough to display graphics (Mekni & Lemieux, n.d). But also good software is needed. Therefore, an application to collect and process a huge amount of different inputs at a time and then changing the knowledge based on new information is required (Mainelli, 2016). Thus, response time delays, hardware and software failures from AR systems need to be considered (Mekni & Lemieux, n.d). Also GPS readings that are only accurate up to 6 meters need to be considered as it certainly impacts the AR software performance. Thus, marketers need to consider objects that function as AR markers that are big enough (Shestakova, 2015). Moreover, technical barriers in optics (PwC, 2015), to manufacture a screen that makes it possible to look through it but still shows the real-world surroundings are obstacles to overcome (Mainelli, 2016). Apart from that, the AR app requires a lot of battery life of the mobile device (Economist, 2016; Hollister&Fleenor, 2016), which turned out to be a huge drawback for PokemonGo for example. The PokemonGo app was tested on the iPhone and showed that it drains 15 percent battery for 30 minutes of play. Whereas Facebook in comparison only drains 5 percent battery for 30 minutes of usage (Hollister&Fleenor, 2016). In addition, users’ mobile devices are usually able to take high-quality 2D images, but are not made for AR visual content. Thus, marketers need to use 2D QR- and barcodes. Therefore, it is believed that AR cannot be launched properly until mobile devices are able to overlay the smart spectacles (Economist, 2017).
5. RESEARCH METHODOLOGY

5.1 RESEARCH DESIGN

The classification of the research approach generally used in the literature is an “exploratory”, “descriptive” and “explanatory” (Saunders et al., 2009). The researcher applies an exploratory study for her investigation, as it is concerned with questions such as “what is happening; and to seek new insights of the topic”. There are three different ways of how exploratory research should be conducted: literature review, conducting interviews with experts, and conducting focus group interviews. The presented study applies a combination of literature review and interviews with marketers and professionals. Thus, semi-structured individual interviews, in which the interviewer covered a list of specific issues for the discussions were conducted. The interview guide supporting the research questions had some minor alterations due to the individual cases of the companies. A total oft three interviews were conducted. The selection of the interview partners was not randomly as experts of marketing were required for this study. The interviews were conducted via email and Skype because a personal face-to-face meeting was impossible as the company offices were in different countries than the one of the researcher. The interviews varied between 9-11 questions, depending on the company case. The purpose of the interviews was to explore the opinions and experiences of marketers regarding AR in their own marketing strategy. They are assumed to provide a deeper understanding about how the company benefits from the use of the AR technology. Hence, research through secondary and primary data, such as interviews an exploratory research was chosen in order to explore the research questions.

5.1.1 CASE STUDY RESEARCH

Stake (2000) describes a case study as a common framework for conducting qualitative research. Further, Yin (2009) presents a case study as an empirical inquiry that investigates a contemporary phenomenon within its real-life context.

Hartley (2004) points out that a case study research “consists of a detailed investigation, often with data collection over a period of time, of phenomena, within their context.” with the objective to analyze the processes and context in order to demonstrate the theoretical issues being studied. Stake (2000) claims that conducting qualitative research is a common
approach of a case study. It is most appropriate to use qualitative research methods for studies that need the understanding of the meaning of several phenomenon and events (Merriam (1998); Geertz (1973)). According to Peskhin (1993) qualitative research serves the following purposes: Description, interpretation, verification and evaluation. Regarding the descriptive purpose it reveals the nature of situation, setting or process; the interpretative sense supports the gaining of new insights, concepts and discover existing issues in a given situation; the verification setting aids to experiment particular assumptions and last, the evaluative purpose provides the means of judging the effectiveness of certain practices, processes and innovations.

In addition, Stake (1995) categorizes case studies into three types: intrinsic, instrumental and multiple. A case is intrinsic when it is based on a unit, person or institution and relies only on the living account of this group. He considers a case as an instrumental when the case is mainly examined to provide insight into an issue or to redraw a generalization. The case is of secondary interest but supports the understanding of something else. Last, he says that a case is multiple when several cases are jointly studied to investigate a person, phenomena, institution popularity or entity.

Furthermore, according to Yin (2009), the type of research questions determines the research strategy that will be used in a study. The following table summarizes the research strategies.

*Table 2: Solution for research strategies*

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Forms of research question</th>
<th>Requires control over behavioral events?</th>
<th>Focuses on contemporary events?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiments</td>
<td>How. Why</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>History</td>
<td>How. Why</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
In general, case studies are applied when “how” or “why” questions are raised and when the events are contemporary but the investigators have no or little control over behavioral events.

This research aims to analyze how AR can be beneficial in Marketing. Thus, a “how” question is raised. Moreover, AR is considered as an “up-to-date” topic and therefore a contemporary event. In addition, there is no control over behavioral events. Therefore, considering the above-mentioned reasons, a case study strategy is appropriate. Furthermore, this research is classified as a “multiple case study” since there will be more than one company studied.

5.1.2 QUALITATIVE DATA COLLECTION

As preparation for the interviews, information of the literature was reviewed so that the conversations headed the right direction and discussions flowed naturally. Interview guides were used to keep interactions focused, but some latitude to answer freely was allowed. After the secondary data collection, the qualitative semi-structured interviews were conducted with three companies. The interviewee of the first company was female and her position in the company is the Head of Marketing. The second interviewee of company 2 was male and operates as the Marketing Coordinator. The last interviewee of company 3 was female and her position in the company is the Global Online Marketing Manager.

The first interview was conducted via Skype in the middle of January 2017 and took around 50 minutes to complete. The ten questions were asked in person and were audio-recorded. Besides extremely valuable insights for this study, the company further gave significant examples of their customers’ success- and failure stories. Thus, one of their customers will also be used as a case for this research. The second interview, with one of the companies’ customers, was conducted via email in the middle of January 2017 and included 11 questions. Also the third interview was hold in the middle of January 2017 via email but included 9 questions. Eventually, the observation method was applied in order to complement the gathered insights from the in-depth interviews. Thus, company websites and social media information such as Facebook, Twitter, Instagram and Youtube were reviewed.
5.1.3 DATA ANALYSIS

As a procedure to examine the qualitative data, a content analysis was done in order to analyze written words. It enables a more objective evaluation than just comparing content based on the impressions of the researcher. Moreover, an inductive approach was followed, as semi-structured interview method was applied and the study aims to generate new insights emerging from the data.

First, key words of the interviews were identified and consequently the researcher made a list of all topics that were discussed in the interview. Next, after clustering together similar topics, a table was created with two rows. The first row included the major topics that were constructed from clusters of comparable ones and the second row hold more unique topics that seem important to the major topic. Following the researcher made a one or two word summary of the sentences and coded them. The aim was to reduce the long list of codes down to a smaller and more manageable number and to have a constant comparison. There was a range of themes that the investigator divided into ordinary themes, unexpected themes, hard-to-classify themes and major & sub themes. Then, the researcher collected all the interview quotes and examined the ideas that made up that theme and sub theme and in which sequence or order the information belongs. This process was repeated in order to find potentially new themes and compare them to the old ones and adjust the ideas (see appendix IV and V for the tables of the theme selection process of the data analysis). Afterwards, a visual classification tree was provided for the findings. The classification tree moves from the specific to the general theme. The classification tree starts with the interview data, moving to the codes then to the subthemes and finally the themes. See Figure 3 below.

Figure 3: Classification tree

Source: (Southampton Education School, 2012)
After the identification of the general topics, each company case used for this study was analyzed in more detail. Subsequently, the researcher made a comparative analysis of the companies with similarities and differences.

5.1.4 SELECTION OF THE CASES

The investigator searched in the Internet for companies that apply AR in their marketing strategy. Therefore, key words such as “Augmented Reality Marketing”, “Augmented Reality cases”, “Augmented Reality Companies” and “Digital Companies” were used. However, one of the chosen companies was selected, as the researcher already knew that the enterprise used to apply AR in its business. Additionally, there was easier access to information for the researcher, as she was already familiar with the marketing department. Other companies were contacted via email. But most of them responded negatively, meaning they were not willing to give information or interviews for academic purposes. The reasons for that were mostly due to mentioned time issues of the companies. Hence, the investigator started a second attempt with help of FGV - EBAPE. An email was sent in the name of FGV - EBAPE University to all possible companies that use AR. The email explained FGVs’ position and introduced the researchers purpose of the study. Following an interview with one of the senior marketing manager was requested. Thus, the researcher received a few positive replies and agreed on an appointment for the interview.

It is important to mention that only few companies use AR in their business, for the reasons mentioned earlier. Furthermore, it was complicated to get the direct contacts of senior marketing manager, because in most cases the websites of the companies showed only the contacts of the customer service that was not able to help regarding this issue.

Finally, three European companies agreed for the interview and were selected as cases for this study. Two of the companies operate in the furniture industry, one operating in the B2B- and the other one in the B2C business. The third company is active in the B2C and fashion industry.
6. ANALYSIS OF THE RESULT

In the primary data collection phase, the researcher conducted interviews with a sample of three marketing experts of companies using AR in their business. For the interview a semi-structured approach was followed, as it gave access to information without limiting the interviewees in their answers. Therefore, it had an effect on enriching the outcomes due to more rigor and accurate information about the research. See appendix VI for the research outcomes. The following chapter will introduce the interviewed companies and how they implement AR in their business. Afterwards the interview outcomes will be analyzed and then compared with each other.

6.1 THE COMPANIES

6.1.1 COMPANY 1

About the company
Three Finns founded the company, in 2012. Currently, there are ten employees working with two of them in the marketing department. The headquarter is located in Helsinki (Finland) but they have further offices in London and in Italy. Moreover, there are sales representatives in Poland and Australia. The company started with the idea that one day, AR would be everywhere to see and it would be totally normal to mix the virtual with the real world. Since the beginning, the company focused on AR solutions for the furniture industry as the enterprise felt that there was an unfulfilled need in this sector. But the enterprise also works with other companies, not related to the furniture segment such as fashion brands that wants to use AR in their marketing communication. AR might aid both customers trying to find the right furniture for their home and companies selling their products. The company includes two features: a 3D viewer and AR. Moreover, the enterprise is considered to be the largest repository for high-quality 3D models of furniture and design products.

AR applied in the company
The company prepares the AR technology for other companies’ products and publishes them after in their app and website. The enterprise released a mobile app that aims to help users to visualize what the products and fixtures would look like in their own space. The app displays
the products in real size by projecting a visual replica through the mobile phone camera. In order to let other companies discover the effect of AR, the company provides a demo with one of the customers’ products. Moreover, the company provides monthly usage and engagement reports of the technology in order to see how brands and products are performing.

Qualitative data analysis

The company decided to work with AR as they felt that there was an unfulfilled need in the furniture sector. Therefore, it hoped to capture value out of it. Moreover, the enterprise believes that due to the fact that other worldwide-recognized companies such as IKEA use the same AR app as they do is beneficial for them. Because the head of marketing thinks that consumers nowadays have the knowledge about the AR concept, getting more familiar with the technology and therefore are more willing to use it. However, even the users are ready for AR, it was mentioned that the end-users of the application need high ending devices such as the newest iPhone in order to make the AR technology work on their mobile devices. As a demonstration the example of PokémonGo was mentioned. Because there were still a lot of people that wanted to use the AR app but their mobile devices were not advanced enough for this technology. Hence, it can be assumed that AR is not really emerging of age at the pace that it needs to. Because the purpose of AR is to augment the reality and cannot be realized by each user, meaning that the technology requirements are too advanced to apply at every mobile device. Even though, company 1 is able to prove that the technology is value adding as their monthly analytics show an increasing demand. However, the company claims that many companies are still anxious of new things such as new technologies and are concerned if the technology is adding real value for their company. This indicates that companies still are waiting for the right timing to follow some cases of success. In addition, the interview partner mentioned that today there are lots of apps available and therefore it is difficult for companies to be recognized by potential users with their AR app. Also the case of PokémonGo was mentioned as an example, because they were extremely successful when they launched the AR app. But after a few months the amount of users has fallen dramatically so that almost no one uses the app anymore. Thus, it was mentioned that marketers need to add a real value for the consumer and it should make sense in their marketing strategy. Marketers need to think first about what they want to show to their users. And not just showing them something that pops up which consumers will not remember after some time. For example if a consumer wants to see the catalogue of the company but instead a video
pups up. However, the interview partner recommended using marketing games in order to add value for companies. Also magazines and newspapers can take advantage of the AR technology for example in the car industry by letting the user place the car around the city to see how it would look like. But it was also mentioned that the AR app should be made as easy as possible, meaning not making it too complicated by asking the user to fulfill too many steps. Another valuable insight of the interview was the advice that companies should communicate the AR service within their company. For example the marketing department should communicate about the use of the technology with the sales department. Because the sales department is in direct contact with the consumers and is able to introduce the app on fairs for example.

6.1.2 COMPANY 2

About the company
The selected company operates in the furniture industry/modern design area and is customer of Company 1. Currently, there are 40 employees working with two in the marketing department. It’s headquarter is in Prata di Pordenone, Italy. The company identifies itself as ”Jazz Design Company”, because it was founded by a group of young jazz fans in 1994. The focus is on innovation, functionality, handicraft expertise, sustainability and transparency. Moreover, the company is very proud of its roots, which are based in Italy. Thus, with its strong cultural identity, the company emphasizes it by making reference to “Made in Italy”. Italy is its place of production and a source of over 90 percent of its raw materials. In addition, the company acts environmental friendly and uses renewable materials such as wood or recyclable materials. Also, it is important to mention that new technologies and raw materials are continuously experimented in order to fully extend the life cycle of their products. Furthermore, the enterprise received a certificate of “The International Certification Network” for the activities design, construction and marketing of chairs, tables and furniture for the home, office and communities and another certificate for the implementation and maintenance of a “Quality Management System” which fulfills the requirements of the ISO 9001:2008 standard.

AR applied in the company
First, the AR application was used at a trade show in order to show a new product the company was promoting. At the fair the company showed the operation physically at the
stand by giving instructions to test the application. Now, the company provides an AR application, where the customer is able to preview digital furniture in the physical house. After selecting the furniture, the customer needs to put the catalog on the ground, where it acts as an anchor for the 3-D image of the furniture. Following, the shopper will see how the selected digital item will look like in the physical room. The shopper can then change the size and color and is even able to rotate the furniture.

Qualitative data analysis
The physical experience was a teaser / sample at the fair to make the customers get hooked to this AR experience later. From that perspective, AR does not really bring more dividends but just makes the marketing strategy look attractive. However, as already mentioned, the company focuses on innovation and during the interview it was mentioned twice that the enterprise wanted to show their customers that they provide the latest innovations in terms of technologies. This indicates that more than the actual need of Augmented Reality, there is this need to appear innovative. The need to look innovative is more than the actual need to innovate with AR. However, the company had no success with AR in their first attempt when using it at the fair. Because it was realized that customers and agents were not using the technology. The reasons mentioned were the age of their customers (their target group is still very traditional) and the sales force. This can be interpreted as AR not really coming of age at the pace that it needs to. The very motive of AR is to augment the reality and in this case, the motive could not be realized, meaning that the physical touch could not be substituted. But instead of giving up on AR, the company joined a website (of company 1) that gives companies the ability to download the products and show on their website. This website is only visited by people that are really interested and familiar with AR. This confirms the researchers’ previous observation of the need to be innovative. Moreover, the company was convinced to give AR a second chance as the price seemed to be attractive and the platform was well known by their target audience. This indicates that organizations still see some value in AR and are waiting for the right time to be either innovators or first followers. Moreover, the interviewed partner is the opinion that their consumers changed and are now more ready for this kind of technology. For example, less people at fairs collect catalogs, they rather take pictures or ask about the website. However, it was also mentioned that although the technology has improved, it is poorly suited to their industry, because an interior design is still best expressed with a project on paper. This can be observed as AR being ahead of time and can be compared with the classic example of electric cars. Till there are no charging
stations on the Autobahn, people cannot expect electric car sales to rise up. Another challenge is although in general people are more willing to accept AR, their target group is still very traditional. Because in the furniture sector it is still very important for consumers to physically see or touch the product. Besides that it was mentioned that some consumers did not use the AR application for its real purpose but instead as a zombie game.

6.1.3 COMPANY 3

About the company
Company 3 operates in the fashion industry and is a world-recognized brand with its headquarter in Paris, France. It sells high-end clothing, footwear, perfume, leather goods, watches, eyewear, and polo shirts focused on elegant sports wear. The enterprise operates international with 25 percent of its employees in France, 21 percent in Asia, 33 percent in EMEA (except France), and 21 percent in America. A total of 10,000 people are employed at the company around the world. However, the brand is very proud of its French roots and communicates this through the message of creating, manufacturing and selling “French elegance and freedom of movement!” Moreover, the enterprise is part of the “United Nations Global Pact” and the GSCP (Global Social Compliance Programme).

AR applied in the company
The AR experience in this case works like a virtual mirror. It enables users to virtually try-on the eyewear before buying them on the company’s website. The camera on the mobile device scans the users face and the user can choose between different eyewear models that he/she wants to try on. Next the eyewear is placed at the right areas of the face. As it is in real-time, the customer is able to move his/her head while the eyewear follows the movement. Thus, the user can see how the product looks like from different perspectives. Moreover, the customer is able to choose between different colors of the model. The AR technology was provided in 2015 but was abandoned after a year.

Qualitative data analysis
Through AR the company was hoping to face the limitations of the Internet, which is the fact not to try items before purchasing them. Thus, the technology was implemented to decrease the company’s return rate and increase its conversion rate. In fact, the analytics showed
benefits regarding their KPIs of the sunglasses section on their digital flagship. They recognized a) a better conversion rate, b) more time spent on the sunglasses product page, c) a decrease of return rate. Moreover, 40 percent of the people that visited the sunglasses section used the AR tool. This indicates that their consumers accepted the technology really well, meaning there was a need of this technology for their customers. However, the company faced technical problems (on the supplier’s side), as it could not be used flawless and they never managed to fix this issue. Therefore, the company decided to use the technology again when it is at a more advanced stage and 100 percent optimized in order to give their customers the best experience and satisfaction. This clearly shows, that companies can see value in this technology but wait for the right time to adapt to it. Thus, it can be observed that at some point the technology is still at its initial phase, meaning it is still not ready enough.

6.1.4 COMPARATIVE ANALYSIS OF THE COMPANIES

The present chapter aims to demonstrate how the three companies vary or have in common according to their use of AR, the benefits, challenges, and changes after the implementation. Therefore table 3 and 4 illustrate the main similarities and differences observed.

Table 3: Similarities of the company cases

<table>
<thead>
<tr>
<th></th>
<th>COMPANY 1</th>
<th>COMPANY 2</th>
<th>COMPANY 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinks AR adds value</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Feels there is an unfulfilled need</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Uses it for a better communication towards consumer</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Faced technical barriers (from company or consumer side)</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Wait for or benefit</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
from further AR success stories

Had a better market performance with AR

Were unsuccessful with AR

<table>
<thead>
<tr>
<th></th>
<th>COMPANY 1</th>
<th>COMPANY 2</th>
<th>COMPANY 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of AR</td>
<td>Provider of AR applications and their platform</td>
<td>Application and website</td>
<td>Website</td>
</tr>
<tr>
<td>Strategic vs. tactical interest in AR</td>
<td>Strategic</td>
<td>Tactical</td>
<td>Tactical</td>
</tr>
<tr>
<td>Main Reason for the use of AR</td>
<td>Feels there is an unfulfilled need</td>
<td>Need to appear innovative</td>
<td>Decrease return rate and increase conversion rate</td>
</tr>
<tr>
<td>Acceptance by customers</td>
<td>Good</td>
<td>Not well accepted. Target group is very traditional and not used to technology or use AR for other purpose</td>
<td>Accepted very good</td>
</tr>
<tr>
<td>Acceptance by company</td>
<td>Good</td>
<td>Not good. As AR is poorly suited to their industry</td>
<td>Medium. Due to technical problems that could not be solved</td>
</tr>
<tr>
<td>Dependence of AR</td>
<td>Company is an AR</td>
<td>Dependent on their</td>
<td>Dependent in terms</td>
</tr>
</tbody>
</table>

*Table 4: Differences of the company cases*
Each case company uses AR as a tool different within their business. Company 1 provides the AR technology for other companies’ products, mostly furniture companies, and publishes them after in their app and website, company 2 uses the AR service provided by company 1, where the customer is able to preview digital furniture in the physical house, and company 3 enables users to virtually try-on their eyewear on their website. Company 1 has a strategic interest in AR as it is the provider of the technology meaning it is the company’s main business. However, company 2 and company 3 are both users of AR but their main business lays elsewhere. Thus, company 2 and 3 use or used AR tactical within their business. There were several reasons mentioned why the companies implemented AR in their marketing strategy. However, all of them mentioned that one of the main reasons for the use of AR as a tool was the fact that they felt that there was a need for it and hoping to capture value out of it. Company 2 mentioned the need to appear innovative for their customers, and aim to communicate better with them due to AR. Moreover the attractive price of the AR service convinced the company to use it as a tool. Company 3 focused on economic growth in terms of decreasing the return rate and increasing the conversion rate. All companies aim to communicate better with their customers. However, while the target group of company 1 is very broad, the ones of company 2 and 3 are more narrowed. Company 3s customers for example accepted it really well indicated by the 40 percent of people that visited the sunglass section used as the AR tool on the website. Whereas the customers of company 2 did not as they are still very traditional and want to see or touch the product. Though, company 2 and company 3 were both facing a failure with the AR as a tool but for different reasons. Company 2 because customers and agents did not use the application and company 3 due to technical bugs. Company 1 also mentioned technical barriers, as not all end-users of the AR app own high ending devices that are required for the technology. However, company 2 gave
AR a second chance and still uses it, whereas company 3 gave up on the technology. This can also be explained by the influence of the supplier side, because company 2 benefits from the provided and well-known platform of company 1, while company 3’s suppliers where not able to manage the technical barriers. That indicates that company 2 clearly focuses on being innovative, while company 3 decided to use AR again only when it is 100 percent optimized. Also company 1 mentioned the benefit of waiting some time the technology is more advanced, but more in terms of the acceptance and familiarity of AR by their customers. However, company 1 also pointed out that success stories such as IKEA and PokémonGo, created a positive word of mouth of the AR technology. Therefore, customers nowadays know or have heard about AR and are more willing to give the technology a try.

7. CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

The main objective of this research was to gain a better understanding of the reasons influencing the use of AR applied in marketing. In order to achieve this aim, a literature review to understand some general background information about the topic was undertaken, and then further link the important theory to the findings of the investigator and the qualitative research. The study has identified several benefits, challenges, and recommendations that companies might find useful in the decision making process regarding the implementation of AR.

Secondary and primary data revealed that through AR new benefits and possibilities would arise in marketing. First, the theory showed that AR enables marketers to bring the brand alive in a new way. Therefore, by providing customers interactive, three-dimensional, and engaging experiences with their brand, AR is able to provide customers something that competitors are not offering yet. These observations could also been made in the primary data collection. In fact, in the interview with company 1 it was mentioned that the enterprise felt that there was a need for this technology in the furniture sector and AR would add additional value. Also company 2 indicated a need to appear innovative, meaning to show their customers that they are upgraded to the latest innovation in terms of new technologies.

Second, the theory revealed that through personalization and virality, AR enables companies to connect better with their actual clients. And as a brand being unique or different by fun
with interactive features makes it possible to reach a bigger audience and acquire new customers and gives a positive word of mouth (WOM). In addition, being interactive and entertaining by creating a surprise factor for customers will motivate customers to use the AR technology more times. Company 1 mentioned during the interview that their main idea was to provide something different with AR, which can go in line with the creation of positive word of mouth. Moreover, the company recommended using AR marketing games, which reveals the fact of being different by “fun”. In addition, company 1 claims that AR leads to an increase in demand, which can be also interpreted that companies reach a bigger audience with AR. Also company 3 was able to connect better with their actual clients and the AR technology was highly accepted by their customers. Company 2 aimed to communicate better with their customers with AR as well, however, the technology is poorly suited to their industry and their target group is not very familiar with new technologies.

Third, secondary data shows that utilizing interactive media such as AR in marketing improves the learning effect for marketers as they learn how to adjust and improve based on meaningful interactions of customers. This could also be confirmed in the qualitative data analysis, as company 2 had two attempts using AR as a tool. The failure of the first attempt contributed to the improvement of the technology’s use in their second one. However, company 3 did not manage to adjust and improve from AR, because they removed the tool due to technical bugs from the suppliers’ side.

Last, but not least, secondary data revealed that AR demonstrates to have a positive impact on long-term purchases and presents a real value for marketers by seeing the analytical side of their interactive campaigns. The interview with company 3 clearly proves this effect. In fact, the analytics showed benefits regarding their KPIs of the sunglasses section on their digital flagship. They recognized a better conversion rate, more time spent on the sunglasses product page, a decrease of return rate.

However, in the literature review and qualitative data analysis several challenges of AR as a tool could be observed. First, in the secondary data collection phase it was demonstrated that the consumer might not be familiar or ready for this kind of technology, meaning they do not fully understand how the technology works. This scenario could be observed during the interview with company 2 for the primary data research. The company mentioned that demographics, such as the age of their target group, is still very traditional, meaning they are not familiar or ready for new technologies such as AR. Additionally, in the furniture sector it is still very important for consumers to physically see or touch the product. However, both
company 1 and 3 agree that in general consumers nowadays are ready to accept AR. This has been proven by several success stories such as IKEA and the analyses of the case companies 1 and 3. Besides, company 1 mentioned that not only the customer might not be ready for AR, also several companies are still anxious of new things such as new technologies.

The next revealed challenge is the question if AR adds real value for the company. In fact, the literature review indicated that the way the company applies AR in their marketing strategy might not be useful for the enterprise and users of the technology might get tired of it very quickly. Also primary data in this study mentioned this challenge. Company 1 claimed that many times AR is only temporary and after some time not special anymore. That is why it is significant to make sure as a company that the applied AR tool makes sense in their marketing strategy and find a real value for their customers.

Finally, theory revealed the technology status of AR as a challenge. Because AR is still considered to be at its early stage, and there exist several technical barriers. This obstacle was also revealed in the qualitative research. Company 3 even gave up on the technology, as AR did not work flawless on their website and therefore waits till AR is 100 percent optimized in order to implement it again.

Besides these challenges, another significant insight was gained during the interview with company 1. As nowadays there are a huge amount of applications available, it will be difficult for companies to be recognized with their app.

However, this research study also faces several limitations. One of the most common ones in academic research is the consequence of the data collection. Due to the limited research time a qualitative and exploratory investigation was conducted. Hence, a quantitative research could intensify the current findings. In addition, it could strengthen the credibility of research findings (Saunders, Lewis & Thornhill, 2009).

Another limitation is the small sample size of only 3 companies. Because even though a qualitative data approach was selected for this study, three companies might not reflect a proper sample. The reason why the sample size was that small is the fact that AR is still in its initial phase (DeMers, 2016; Economist, 2016; Martin, 2016; Jin & Yazdanifard, 2015; Imbach, 2016) and therefore there is a limited amount of companies that use the technology. Thus, there were only few companies available that could be applied as a case for this study. Moreover, many of the contacted companies have not replied to the researcher.

Furthermore, two out of three interviews were conducted via email, as the marketing experts preferred this procedure. Therefore, the interviewees might have been limited in their answers
and the researcher might have missed the opportunity to ask further follow-up questions or gain additional significant insights for this study.

Moreover the case companies were all located in Europe. Therefore, when applying the findings and recommendations to companies from other continents, and countries the impact might be different and also the findings, when conducting the research.

Additionally, the AR application is widely used in the retail industry and reveals many opportunities for this industry (Accenture, 2014). This research study does not focus strictly on the use of AR in the retail industry, but on a more, broader employment of AR in the marketing field. Therefore, future research is highly recommended on the basis of the results of this study to further corroborate the findings and ensure validity and credibility. Moreover, it might be interesting to examine more companies and industries. As a result, the findings of this study might have different impacts when applied to other products, services, industries and businesses.

8. RECOMMENDATIONS

The major findings of the secondary and primary research could be useful for companies and in particular marketers in the decision making process regarding the use of AR as a tool. Marketers must consider first establishing a strategy and goals, and adapting to the technology at the right time. Furthermore, the technology must be used in a way that it makes sense in marketing by enhancing customer experiences and make it easy to use. Furthermore, the technology needs to be communicated through all departments within the company. Following, these recommendations will be explained more in detail.

8.1 ESTABLISH STRATEGY AND GOALS

Applying AR is most effective when establishing a strategy first. It aids to adjust the experiences in a way that adds value to the consumer (Accenture 2017; Augment, 2016). Moreover, marketers should consider the objectives of a media campaign before implementing AR in their strategy (O’Mahony, 2014; Scholz & Smith, 2015). It should be clear from the beginning what is expected of the solution (Accenture, 2014). So instead of regarding the use of AR itself an objective with ill-defined results, marketers should think about to which extend the technology is appropriate for them considering the other possible alternatives. Thus, prioritizing the composition of meaningful objectives towards its use.
Therefore, the process of utilization should start with a mapping of a campaign’s objectives in order to find out if AR is suitable to their pursuit (O’Mahony, 2014). Furthermore, AR needs to keep interesting for users. Thus, marketers should invest in solution maintenance and the development of new content and features over time. Because the sustainability of AR needs an ongoing buy-in and financial support from key project sponsors (Accenture, 2014). Company 1 also mentioned these considerations during the interview. It was recommended to companies to use only AR content that makes sense in their marketing strategy. Therefore, marketers need to think first about what they want to show to their customers, instead of just showing them something that pops up and consumers will not remember after some time.

### 8.2 WAIT FOR THE RIGHT TIMING

AR has been under development for some years. Thus, marketers should not jump too quickly to launch their own experience. AR interactions need to be timely and appropriate (Augment, 2016). Timing is an important aspect to consider, because if a company adapts a new technology too soon, the audience might not be ready for it. However, if the company uses the technology too late, competitors might beat the company (DeMers, 2016). Company 2 might be a great example to demonstrate that timing is an important issue to consider. As already mentioned, the company used AR at a time when their consumers and agents where not ready for it. However, after some years, the enterprise recognized that their consumers changed in terms of technology adoption, and implemented the technology again. Another example is company 3 when using AR in the year 2015. However, their consumers clearly showed that they were ready for the technology, whereby the AR itself was not as it did not work flawless. Therefore, the company will wait to use AR again when it is 100 percent optimized. Also company 1 claimed that the technology is still not ready, but more due to the fact that many consumers still cannot use the technology as their end devices are not advanced enough to overlay the AR content.

### 8.3 VALUE ADDING

The derivation of value is significant, meaning that the attributes of AR represent an enhanced capacity to convey value (O’Mahony, 2014). The digital content that augments the physical environment must be relevant and address the needs of the targeted customer segments. Therefore, building more robust content-production processes and implementing better content-management systems might be a solution. The content-management systems are able
to recognize and after deliver the relevant content to the user (Accenture, 2014). Though, in order for the potential of AR to be seen, marketers need to understand how customers would best utilize AR (Augment, 2016; Javornik A., 2016) and interact with the technology (Javornik A., 2016). Because AR provides a memorable experience when correctly applied (Augment, 2016). If the technology is only a one-off episode, the augmentation is expected to direct the users attention towards the technology. However, if it is integrated well in a process or environment, it will reach more people and has a positive impact on sales. Also the interview with company 1 confirmed this observation. The company said that it is important to find a real value and continuously create new ones in order to appear special for their customers. Also company 3 mentioned the fact that AR added value to their business, but more in terms of economic growth. The company recognized a better conversion rate, more time spent on the product page, and a decrease of the return rate.

### 8.4 Enhancing Customer Experience

To integrate AR the right way, the focus should be on enhancing customer experience (Accenture, 2017; Scholz & Smith, 2015; Javornik A., 2016) that is different, noticed and valued (Accenture, 2014). In addition, it is recommended that instead of overlaying as many places as possible with additional virtual content, marketers need to understand the specific activities where it can create real value (Javornik A., 2016; O’Mahony, 2014). However, Stephen O’Mahony claims in his study that AR needs to be integrated into a wider marketing communication mix. The technology should be present in a spectrum of available media platforms. He claims that successful marketing campaigns utilize a full range of media platforms and integrate them together in order to derive synergistic benefits (O’Mahony, 2014). During the interview with company 1 it was also confirmed that companies often use AR as a marketing gimmick and create a WOW effect, however after a while customers do not perceive it as special anymore. In order to avoid this, companies need to find new ways to enhance their customer experience. Moreover, in order to enhance the customer experience, company 1 recommended other companies to use AR for marketing games. Additionally, as mentioned already in the data analysis, magazines and newspapers can take advantage of the AR technology, for instance in the car industry by letting the user place the car around the city to see how it would look like.
8.5 MAKE AR EASY TO USE
As mentioned above, marketers should create an experience. But this experience need to be easy to understand and the interface easy to use. It is suggested to explain to users how they should engage with the new technology and how they can achieve potential benefits out of it (Accenture, 2014). So, AR needs to be integrated in a way that it easy to use and more convenient for the consumer (Javornik A., 2016). The Economist quotes that in order to make AR successful, it needs to be made easier to use, meaning that versions towards the consumers need to be adapted for their mobile devices (The Economist, 2017). Moreover, wearable equipments for the use of AR should be developed to be smaller, lighter and easier to work with the user (Mekni & Lemieux, 2014). This aspect could also be revealed during the primary data analysis. Company 1 recommended to make the AR technology as easy as possible for customers and do not ask too many steps to fulfill before letting them using it.

8.6 COMMUNICATION
In order to implement valuable AR apps, there need to be more collaboration among marketers, designers and computer scientists within the company (Javornik A., 2016). Also during the interview with company 1, it was mentioned how important the communication amongst the departments is. Very often companies’ do not communicate the use of the AR technology amongst the different departments and might loose several opportunities. For instance, the marketing department should also communicate AR with the sales department. Because the sales department could have the need to use AR as well and is in direct contact with their customers. For instance the sales team could use the AR tool to show the AR technology to their customers directly at an event or fair.
9. APPENDIX

Appendix I: PokemonGo app

Source: The economist, 2016

Appendix II: IKEA AR application

Source: Ridden, 2013
Appendix III: AR campaign for “The Walking Dead TV” show in Vienna, Austria
Appendix IV: Table 1 of the theme selection process of the data analysis

<table>
<thead>
<tr>
<th>Primary themes</th>
<th>Sub-themes related to primary theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reasons for implement AR in their marketing strategy</strong></td>
<td>- felt that there was an unfulfilled need; hoping to gain value</td>
</tr>
<tr>
<td></td>
<td>- to show a new product they were promoting;</td>
</tr>
<tr>
<td>Key words:</td>
<td>- choice was communication character;</td>
</tr>
<tr>
<td>- unfulfilled need (2x?)</td>
<td>- wanted to make it clear to their customers that they were upgraded to the latest innovations in terms of new technologies</td>
</tr>
<tr>
<td>- new product</td>
<td>- to help their customers to chose their sunglasses by trying them on virtually;</td>
</tr>
<tr>
<td>- consumer communication</td>
<td>- hoped to decrease the return rate and increase the conversion rate;</td>
</tr>
<tr>
<td>- innovative company</td>
<td></td>
</tr>
<tr>
<td>- hope to decrease return rate</td>
<td></td>
</tr>
<tr>
<td><strong>Benefits of AR technology</strong></td>
<td>- it is value adding as the analytics will be shown;</td>
</tr>
<tr>
<td>Key words:</td>
<td>- increase in demand.</td>
</tr>
<tr>
<td>- value adding</td>
<td>- lower entry price;</td>
</tr>
<tr>
<td>- lower price</td>
<td>- ability to use a platform that is known by their target audience;</td>
</tr>
<tr>
<td>- use platform of provider that is well known</td>
<td>- tech improved in terms of how it is used;</td>
</tr>
<tr>
<td>- People get used to/adopt technology</td>
<td>- But it changes, for example, fewer people at the fairs collect catalogs, they take pictures or ask about the website; price for AR is low</td>
</tr>
<tr>
<td>- Value adding: in marketing games</td>
<td>- magazines or newspapers (add in newspaper: car and place it around city and see how it looks)</td>
</tr>
<tr>
<td></td>
<td>- value adding: marketing games etc.</td>
</tr>
</tbody>
</table>
| Barriers of AR technology | - is value adding?  
- need for high ending devices  
- afraid of new things  
- only a marketing gimmick and don’t communicate it right  
- technically not flawless  
- it was on the supplier’s side and the company never managed to have a flawless AR tool  
- The company will of course come back to AR when it will be 100% optimized to give the best experience and satisfaction to our customers  
- Make it easy! don’t ask too many things!! To complicated!!! |

| Key words:  
- value adding?  
- Need for high ending devices  
- Afraid of new things  
- Only marketing gimmick, no right communicated  
- Waiting till AR is at a more advanced stage  
- Make app easy too use  
- A lot of apps. Hard to find you. |

| Change after the implementation of AR | - benefit on the KPIs of the sunglasses section on their Digital Flagship:  
  a. A better conversion rate  
  b. More time spent on the sunglasses product page  
  c. A decrease of our return rate  
- Tech showed that there was a need for consumers (The accepted it really good as 40% of the people who visited the sunglasses section used the AR tool) |

| Key words:  
- KPIs: better conversion rate  
- More time spend on the product page (online)  
- Decrease of return rate  
- Showed there was a need |

| Key word:  
- Communication  
- Clear purpose of AR  
- Right timing  
- Need a right communication within the company important  
- Should Make sense in marketing!!!!  
Want a catalog but video pops up. Think about what you want to show. Not just |
showing sth popping up. They don’t remember:
- TIMING because it’s sth new

| Key word: | But the fact that other companies use the technology is beneficial for the company, as consumers are getting more familiar with the technology and therefore more willing to use it:
| Successes of other companies: consumers getting familiar with AR | - Now people know what the concept AR is and are more familiar with the technology

| Readiness of technology | - Now people know what the concept AR is and are more familiar with the technology
| Key words: | - But the fact that other companies use the technology is beneficial for the company, as consumers are getting more familiar with the technology and therefore more willing to use it:
|  | - Case showed that there was a consumer need
|  | - Waiting till AR is at a more advanced stage
|  | - Need for high ending devices
|  | - Afraid of new things
|  | - People get used to/adopt technology
|  | - Tech showed that there was a need for consumers (The accepted it really good as 40% of the people who visited the sunglasses section used the AR tool)
|  | - Need for high ending devices
|  | - Afraid of new things
|  | - Technically not flawless ⇒ it was on the supplier’s side and the company never managed to have a flawless AR tool
|  | - The company will of course come back to AR when it will be 100% optimized to give the best experience and satisfaction


Recommendations

Key words:
- Communication
- Clear purpose of AR
- Right timing
- Make app easy too use

- Need a right communication within the company important
- Should Make sense in marketing!!!!
Want a catalog but video pups up. Think about what you want to show. Not just showing sth popping up. They don´t remember
- TIMING because it´s sth new
- Make it easy! don´t ask too many things!! To complicated!!!
Technology is beneficial for the company, as consumers are getting more familiar with the technology and therefore more willing to use it. Now people know what the concept AR is and are more familiar with the technology.

- TIMING because it’s sth new

| It is value adding as the analytics will be shown; increase in demand. | lower entry price; ability to use a platform that is known by their target audience; tech improved in terms of how it is used; But it changes, for example, fewer people at the fairs collect catalogs, they take pictures or ask about the website; price for AR is low | They saw a benefit on the KPIs of the sunglasses section on their Digital Flagship:
  d. A better conversion rate
e. More time spent on the sunglasses product page
f. A decrease of our return rate |

| is value adding? need for high ending devices; afraid of new things; only a marketing gimmick and don’t communicate it right. | the age of their customers (2x) and the sales force; the furniture industry it is still very important to physically see or touch the product; | Technically not flawless, it was on the supplier’s side and the company never managed to have a flawless AR tool |
- A lot of apps. Hard to find you. Companies expect that people find it. But

- Need a right communication within the company important
- Should Make sense in marketing!!!! Want a catalog but video pops up. Think about what you want to show. Not just showing sth popping up. They don’t remember
- Make it easy! don’t ask too many things!! Too complicated!!

- magazines or newspapers (add in newspaper: car and place it around city and see how it looks

- an innovation that remains poorly suited to the furniture industry: challenge to educate customers about their products that are available through only technologies

. The company will of course come back to AR when it will be 100% optimized to give the best experience and satisfaction to our customers.
Appendix VI: Summary of the semi-structured interviews

Thank you for agreeing to participate in this interview, which will support my master thesis.

The purpose of this interview is to gain a better understanding of the reasons influencing on the use of Augmented Reality applied in marketing as a tool for increasing performance. Through your participation, the researcher’s objective is to evaluate the application and impact of Augmented Reality in marketing.

INTERVIEW COMPANY 1: WITH THE HEAD OF MARKETING

2. How did the company make the decision to implement Augmented Reality in marketing? What need was the company hoping to fulfill? (Did you get inspired by IKEA?)

The company started its business with AR because they felt that there was an unfulfilled need for the furniture sector. So, they were hoping to gain value through this market gap. The company did not get inspired by IKEA, as they started with AR in 2012 and IKEA began to use the AR technology after in 2013. But the fact that other companies use the technology is beneficial for the company, as consumers are getting more familiar with the technology and therefore more willing to use it.

3. What changed after the implementation of Augmented Reality? And how? Or did you start your business with the AR service already? (What did you do before?)

The company started with AR from the beginning.

4. Do you think AR is beneficial/value adding to marketing? Why?

It brings an extra value. For example a printed catalogue. With AR possible to update the catalogue right away with flyer instead of printing it each time. Moreover, it is value adding as the analytics will be shown, such as where customers look at and where they are from. Marketing gaming apps add also an extra value.

5. What is your experience, how consumers accept or adopt the AR technology?
The company can see an increase in demand. Now people know what the concept AR is and are more familiar with the technology. Therefore, it has changed a lot for the consumer and the brand. PokemonGo and IKEA contributed a lot to consumers knowing what the AR concept is. Especially in the furniture sector the segment is more traditional and it took their consumers a while to engage with new digital content such as online shopping.

6. Where there any challenges regarding the technology that the company had to face? If yes, what challenges? How did you face them?
   - If the technology is value adding;
   - AR apps require high ending devices, dependent on state of technology (devices), good for high devices (such as iPhone 6 etc.) and technology requires a lot of power
   - People and companies are often afraid of new things, it will take time for the transformation

7. How do marketers make sure that Augmented Reality is beneficial to their strategy?
   In this case of (B2B): Company always offers a free demo to their customers.
   In the case for other companies (B2C): Right communication within the company. For example marketing department should communicated with the sales department. The sales department could show the technology it at events and are often in direct contact with their customers.

8. What systematic tracking mechanism exist to determine how many or what types of users are using the technology?
   Sending monthly reports about performance.

9. Do you intent to use further AR technologies (in your marketing strategy) in the future? Why? And How?
   They want to focus on AR and look for latest new developments but also offer their 3D models and a Virtual Reality experience.

10. Do you have any success stories that you can share?
Kristallia (furniture brand) from Italy had first some difficulties 2-3 years ago, as they did not communicate the technology right with their consumers at a fair. But 1 year ago they tried the technology again and are now familiar and see the potential of the technology. Now they are successful with it.

11. Unsuccessful stories?
Companies that think that it is only a marketing gimmick and don´t communicate it right. But for example after 6 months people will forget about the AR that they used in this context.

INTERVIEW COMPANY 2: WITH THE MARKETING COORDINATOR

1. How do you apply Augmented Reality to your company? (Apps, on fairs, please explain etc.)
The company started using an app at a trade show only to show a new product they were promoting. Then they subscribed to an annual service with company 1, where they were able to choose up to 10 different products. At the fair they showed the operation that was physically at the booth or they gave instructions to test the application. The service that they use now, however, is online and available for anyone.

2. How did the company make the decision to implement Augmented Reality in their marketing strategy? What need was the company hoping to fulfill?
The choice was only the communication character. The company wanted to make it clear to their customers that they were upgraded to the latest innovations in terms of new technologies.

3. What changed after the implementation of Augmented Reality? And how? (Within the company, sales, etc.)
Nothing special, the company realized that their customers were not using this technology, even their agents did not. Therefore they chose to work together with company 1 and join their website that promotes various companies with the ability to download the products. So, the company can make sure that on that website only people that are really interested and know this technology will show up.

4. The company already had a first attempt using Augmented Realty at a fair. But it was not really successful. Why?
The company supposes that the reasons for it was the age of their customers and the sales force. Also in the furniture industry it is still very important to physically see or touch the product.

5. Why did you decide to give AR a second chance and applied the technology some years later again? What convinced you to do so?
A lower entry price and the ability to use a platform that is known by their target audience (from last year).

6. Do you think AR is beneficial/value adding to your marketing strategy? Why?
Although the technology has much improved in terms of how it is used (now without the aid of marker as it once was obligatory), it is an innovation that remains poorly suited to the furniture industry. For example, an interior designer is best expressed with a project on paper, as well as understanding for the customer. They have not had many users, but think it is better than nothing. Their strategy is to ride the new technologies and open themselves to new channels.

7. How did your customers accept or adapt to the Augmented Reality technology?
As a game, a zombie application unfortunately.

8. Where (or are) there any further challenges regarding the technology that the company had to face? If yes, what challenges? How did you face them?
Their challenge is to educate customers about their products that are available through only technologies (internet, applications, mail) and leave the printed-paper. But it is still difficult, because the generation that buys their products has grown studying paper books and touching the materials. But it changes, for example, fewer people at the fairs collect catalogs, they take pictures or ask about the website. Currently, it is important to have the website, social media and portals to which they are enrolled, up to date. Then they will try to introduce channels such as their newsletter or data tools by suppliers.

9. How do you make sure that Augmented Reality is beneficial for your marketing strategy? And do you have particular and regular meetings or special teams regarding your AR issues?
The company does not believe in this technology. The usage statistics proves it. But they still want to use all the technologies so that their customers can continue to use them.
10. What systematic tracking mechanism exist to determine how many or what type of users are using your AR?
Their supplier of this service (Company 1) provides all the statistics. Unfortunately the data is limited to make detailed analyzes.

11. Do you intent to use further AR technologies in your marketing strategy in the future? Why? And How?
if the price will remain low, the company will use it. If the price will rise, but the technology will be used by many people - we will use it.

INTERVIEW COMPANY 3: WITH THE GLOBAL ONLINE MARKETING MANAGER

1. How do/did the company apply Augmented Reality? What other departments besides Marketing did make use of it? And for what products? (Apps, website, on fairs, etc.)
The company used Augmented Reality on their online store in the “Sunglasses section” in order to help their customers to chose their sunglasses by trying them on virtually.

2. How did the company make the decision to implement Augmented Reality in marketing? What need was the company hoping to fulfill?
They implemented AR to face the limitation of the Internet, which is the fact not to be able to try items before purchasing them. Thus, we hoped to decrease the return rate and increase the conversion rate because customers could see how sunglasses really looked on them.

3. What changed after the implementation of Augmented Reality? And how?
They saw a benefit on the KPIs of the sunglasses section on their Digital Flagship:
   a. A better conversion rate
   b. More time spent on the sunglasses product page
   c. A decrease of our return rate
4. The company does not use Augmented Reality in its business anymore. Please explain why you decided not to apply the technology anymore. And from when to when did you use the technology in your business?

The company decided to remove the AR because even though this is a great tool to bypass the constraint of the web, which is not trying the items for real, the tool is effective only if it’s technically flawless. Unfortunately, they faced a lot of bugs and had to unplug it then replug so they decided to remove it from the site.

5. What were the challenges regarding the technology that the company had to face? And did you try to face them?

The bugs came directly from their supplier, the company had no mean to correct it, it was on the supplier’s side and the company never managed to have a flawless AR tool.

6. How did your customers accept or adapt to the Augmented Reality technology?

The accepted it really good as 40% of the people who visited the sunglasses section used the AR tool. So it was really well accepted by their customers and showed the company that it was a need for them but unfortunately because of technical problems they had to stop it.

7. Do you personally think AR is beneficial/value adding to your marketing strategy? Why?

She thinks that AR is an added value because with the technology, they offer a new service to their customers and help them better chose what fits them best even though they can’t try the item for real. AR bypasses this problem.

8. What systematic tracking mechanism exist to determine how many or what types of customers are using the technology?

The company tracked it through their usual web analytics tool, which is Google Analytics. The supplier had also its own analytics plugged to the tool and sent them regularly to the company.

9. Do you intent to use further AR technologies in your marketing strategy in the future? Why? And How?
Yes they do, when they will find the right tool, which is the most efficient for them. The problem is that there are a lot of AR tools on the market but most of them are not perfect and the experience is not flawless. The company will of course come back to AR when it will be 100% optimized to give the best experience and satisfaction to our customers.
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