

# AUGMENTED REALITY

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**TOWARDS AN AR-EMPOWERED SUSTAINABLE  
COMPETITIVE ADVANTAGE**

**VEJEN MOD EN AR-DREVET LÆNGEREVARENDE  
KONKURRENCEMÆSSIG FORDEL**



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## ABSTRACT

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Formålet med nærværende kandidatafhandling er at undersøge, hvordan teknologien Augmented Reality kan begunstige organisationers marketing initiativer, i form af dannelsen af en konkurrencemæssig fordel, som kan anses som værende langtidsholdbar i fremtiden. Hensigten er derudover at afdække, på hvilke måder Augmented Reality bemyndiger tilblivelsen af engagement mellem organisationer og dennes forbrugere. Det undersøges desuden, hvordan brugen af Augmented Reality hos organisationer muliggør tilblivelsen af oplevelser, som er unikke af karakter. Endvidere undersøges det, hvordan forbrugeres adfærd påvirkes af brugen af Augmented Reality, hvor der tages afsæt i forbrugernes beslutningstagningsproces.

Kandidatafhandlingen tager udgangspunkt i empiri indsamlet fra organisationerne, Købehavn Zoo, Tivoli, samt Bang & Olufsen, og anskues gennem teori frembragt af Amélia Carvalho & Teresa Fernandes, Viswanath Venkatesh & Fred Davis, Chiara Gentile, Nicola Spiller & Giuliano Noci, og Blackwell, Miniard & Engel. Der er gjort brug af både induktiv og deduktiv metode og derved mixed methods i form af triangulering; kvalitative interviews og et kvantitativt spørgeskema med henblik på at opnå så nøjagtige og retvisende resultater som muligt på baggrund af, at kunne effektuere tilblivelsen af en sammenligning fra et organisatorisk- og forbrugerperspektiv.

Kandidatafhandlingen er anskuet fra forskellige vinkler, herunder hvordan organisationer kan engagere deres forbrugere, skabe unikke oplevelser, samt fra et perspektiv omhandlende beslutningstagningsprocessen hos forbrugere gennem Augmented Reality. Det konkluderes, at brugen af Augmented Reality i organisationers marketinginitiativer ikke muliggør en direkte opnåelse af en længerevarende konkurrencemæssig fordel for hverken serviceoplevelses- eller produktvirksomheder, men at potentialet for opnåelsen er størst for produktvirksomheder. Ydermere identificeres det, at forbrugere sjældent gør brug af Augmented Reality applikationer samt, at det kan være udfordrende at få dem til det. Det belyses derudover, at organisationer oplever usikkerhed angående den optimale udnyttelse af teknologien i disses marketinginitiativer. Ydermere fremvises det, at organisationer sjældent formår at overbringe mere end teknologiens underholdningsværdi, samt at den kan føre til negative organisationsopfattelser, såfremt den ikke anvendes på en måde der er i overensstemmelse med organisationens identitet. Endvidere illustreres det, at teknologien er effektiv i forhold til at skabe word-of-mouth for både serviceoplevelses- og produktvirksomheder, endog dette ikke tilskrives stor værdi. Slutteligt illustreres det, at både mandlige og kvindelige forbrugere anser Augmented Realitys egenskab i forhold til produktvirksomheder, som teknologiens vigtigste aspekt.

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*“The best antidote I know for worry is work. The best cure for weariness is the challenge of helping someone who is even more tired. One of the great ironies of life is this: He or she who serves almost always benefits more than he or she who is served” – Gordon B. Hickley*

In consideration of the above, the help we received is undeniably one of the main influences that has contributed towards the authoring and finalizing of our thesis. Therefore, we would like to show our utmost gratitude towards everyone who has aided our endeavors in connection to the research empowering this thesis. Firstly, we would like to thank our academic advisor Jesper Clement for valuable feedback, guidance and insights pertaining the direction of the thesis – Jesper you have been an indispensable resource throughout the entire process! Secondly, the authoring of this thesis had not been possible without data and insights provided by our case organizations.

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# TABLE OF CONTENTS

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ABSTRACT.....	1
ACKNOWLEDGEMENTS .....	2
CHAPTER 1: INTRODUCTION.....	5
1.1 Technological Advancements and The Rise of Augmented Reality .....	5
1.2 Modern Marketing Enhanced through Augmented Reality .....	6
1.3 Prevailing Research on Augmented Reality .....	7
1.4 Motivation.....	9
1.5 Research Question and Sub-research Questions .....	11
1.6 Definitions .....	12
1.6.1 Definitions .....	12
1.6.2 Abbreviations .....	13
1.7 Delimitations.....	15
1.7.1 Technological Scope.....	15
1.7.2 Business Areas of Application.....	15
1.7.3 Theoretical Framework.....	15
1.7.4 Analyses .....	15
1.7.5 Research .....	16
1.8 Project Outline .....	17
CHAPTER 2: AUGMENTED REALITY.....	18
2.1 The Emergence of Augmented Reality .....	18
2.2 Defining Augmented Reality .....	19
2.3 The Reality-Virtuality Continuum .....	20
CHAPTER 3: METHODOLOGY.....	21
3.1 Philosophy of Science.....	21
3.1.1 Ontology.....	21
3.1.2 Epistemology .....	22
3.1.3 The Ontological and Epistemological Stance within this Thesis .....	24
3.2 Research Approach and Design .....	25
3.2.1 Research Approach.....	25
3.2.2 Research Design .....	25
3.3 Data Collection .....	26
3.3.1 Primary Data.....	26
3.3.2 Secondary Data.....	28
3.4 Credibility of Research .....	28
CHAPTER 4: THEORETICAL FRAMEWORK.....	30
4.1 Engaging the Customer through Technology.....	30
4.1.1 The Theoretical foundations of Customer Engagement.....	30
4.1.2 The Expanded Domain of Relationship Marketing.....	30
4.1.3 The Concept of Engagement .....	32
4.1.4 Definitions of Customer Engagement.....	33
4.1.5 Customer Brand Engagement.....	34
4.1.6 The Theoretical Foundations of Technology Acceptance.....	37
4.1.7 The Technology Acceptance Model.....	38

4.1.8 Evolution of The Technology Acceptance Model .....	40
4.1.9 Theoretical Approach .....	40
4.2 Unique Experiences .....	41
4.2.1 The Theoretical Foundations of Customer Experience .....	41
4.2.2 The Emergence and the Developments of Customer Experience .....	42
4.2.3 The Concept of Customer Experience .....	43
4.2.4 The Concept of Service Experience.....	44
4.2.5 The Correlation of Customer Experience and Service Experience .....	45
4.2.6 Customer Experience Management .....	45
4.2.7 The Conceptual General Framework of Customer Experience.....	46
4.2.8 Theoretical Approach .....	48
4.3 Consumer Decision-Making .....	48
4.3.2 Categories of Consumer Decision-Making.....	49
4.3.3 The Psychological Constraints of Consumers .....	50
4.3.4 Conceptualizing The Consumer Decision-Making Process .....	52
4.3.5 The Dynamic Business Landscapes and Consumer Decision-Making .....	53
4.3.6 Theoretical Approach .....	53
CHAPTER 5: CASE ORGANIZATIONS .....	54
5.1 The Case Organizations .....	54
5.2 The Case Organization's Adoption of Augmented Reality .....	55
CHAPTER 6: ANALYSES.....	57
6.1 Engaging the Consumer Through Technology.....	58
6.1.1 The Customer Brand Engagement Model.....	58
6.2.2 The Technology Acceptance Model 2 .....	64
6.2.3 Interim Conclusion .....	69
6.2 Unique Experiences .....	70
6.2.1 The General Framework of Customer Experience.....	70
6.2.2 Interim Conclusion .....	78
6.3 Consumer Decision-Making .....	79
6.3.1 The Engel-Kollat-Blackwell Model.....	79
6.3.2 Interim Conclusion .....	87
CHAPTER 7: DISCUSSION .....	88
7.1 Engaging the Consumer Through Technology.....	88
7.2 Unique Experiences .....	90
7.3 Consumer Decision-Making .....	92
CHAPTER 8: CONCLUSION.....	95
8.1 Conclusion .....	95
8.2 Limitations & Future Research .....	97
REFERENCES.....	99

# CHAPTER 1: INTRODUCTION

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*In the following sections, a delineation of this thesis will be carried out, discussing technological advancements and the rise of Augmented Reality, and the enhancement of modern marketing through Augmented Reality, as well as the prevailing research on Augmented Reality. In addition, a motivation pertaining to the subject at matter, a problem statement including sub-research questions, definitions, delimitations and a project outline, will also be included.*

## 1.1 Technological Advancements and The Rise of Augmented Reality

The modern business landscape that organizations operate within, is experiencing significant advancements in a multitude of business areas, in particular, within the realm of marketing (Kotler, Kartajaya, & Setiwan, 2017). These developments have been evoked by globalization, which fosters an intensified level of global competition, which, in turn, rapidly changes customer needs and wants, and in particular, technological advancements (Kotler, et al., 2019), which are advancing at an unparalleled pace (McLean & Wilson, 2019). This challenges the ability of ORG to provide offerings that are in line with the demand of customers.

As a consequence, the decisions that ORG make regarding marketing initiatives, are ultimately shaped by the possibilities granted by technology; thus, evolving technology has the ability to grant marketeers with enhanced opportunities (Yaoyuneyong, Foster, Johnson, & Johnson, 2016).

These dynamic developments have generated a reality in which smartphones and tablets, along with other mobile apps, have become a focal point in patterns of consumption behavior and the everyday life of the consumer (Braun, Belk, & Zolfagharian, 2016). In effect, Augmented Reality, evoked from technological advancements, empowers mobile apps and gives rise to the aforementioned enhanced opportunities of engaging with customers, through augmenting the physical world with layers of virtual information in real-time (Scholz & Smith, 2016).

Moreover, the noted increase in global mobile usage has spawned a widespread development in which AR is becoming more prevalent across smartphones and tablets (Nincarean, Ali, Abdul Halim, & Abdul Rahman, 2013; Mekni & Lemieux, 2014).

This notion is also widely reflected within trade publications, business magazines, as well as national newspapers; all of whom acknowledge AR as an innovative and prominent technology that should be considered by organizational marketeers (Scholz & Smith, 2016).

## 1.2 Modern Marketing Enhanced through Augmented Reality

The rise of this prominent technology has also manifested itself as being highly suitable for marketing purposes through its popularity amongst the general population, for example, within apps such as Pokémon Go (Rauschnabel, Rossmann, & Dieck, 2017), Snapchat (Phua & Kim, 2018) and IKEA's mobile apps (Huang & Liao, 2015). In support of this notion, several Fortune 500 ORG, such as Alibaba, Google and Qualcomm Ventures, have demonstrated their trust in the significance of AR, by allocating an investment of \$793.5 million to it (Elder, 2016). Likewise, Tim Cook, the CEO of Apple, expresses that AR has a significant place in an ORG future, on the basis of expelling the boundaries between the ORG and the consumer it is trying to reach. In addition, Cook asserts that AR has the potential to provide ORG with a breadth of opportunities, of which ORG have merely scratched the surface (Murphy, 2017).

Additionally, Porter & Heppelmann (2019) estimated that investments in the technology of AR, would equal \$60 billion by 2020, whilst other researchers have forecasted the compounded annual growth rate (CAGR) of AR in the US to be 31%, and that there will be more than 120 million AR users by 2021 (Hinsch, Felix, & Rauschnabel, 2020). Furthermore, the momentum of the technology is also noticeable from a global user-perspective, whereby the current number of mobile AR users is 1.73 billion (Statista, 2020). From an organizational perspective, Porter & Heppelmann (2019) suggest that AR will have an ample impact on all industries and the value chains of ORG, especially in relation to their marketing initiatives, through which AR will ultimately redefine "*how they compete*" (Porter & Heppelmann, 2019, p. 85).

In line with the above, AR is deemed to be capable of enabling ORG to create immersive brand experiences, generate advertisement richer in interactivity, and offer innovative ways for consumers to experience products and spaces (Scholz & Smith, 2016), as a result of which, many ORG are already utilizing the technology. Examples of such are, MINI, who enabled customers to view a car in 3-D using the technology (Berryman, 2012), and the Italian high-end fashion brand Gucci, who allow customers to try on shoes through their app (Preuss, 2019).

In contrast, the Tokyo Sunshine Aquarium utilized AR in order to successfully navigate customers to its location, through the use of virtual penguins (IBT, 2014). In extension, renowned brands such as L'Oreal, Nike and Adidas, among others, have also embarked on the technology of AR, using realistic virtual settings, with the aspiration of improving the product experience of their consumers and assisting them during decision making processes (Archer, 2016).

Evidently, this dramatically altering and dynamic business landscape necessitates constant innovation from ORG, and therefore, challenges them to break loose from the existing traditional measures of presenting their product and service offerings to consumers (Huang & Liao, 2015).

In addition, AR may be able to provide ORG with the ability to offer unforeseen ways for customers to interact with company offerings (Hinsch, et al., 2020), hereby engaging the consumer by facilitating the creation of immersive and unique experiences through highly personalized content (McLean & Wilson, 2019). Furthermore, modern marketers acknowledge AR as a marketing tool capable of providing value to consumers throughout the entirety of the customer journey (BCG, 2018), which further supports the belief that AR may be of great value to the marketing goals of ORG (Yaoyuneyong, et al., 2016). Moreover, the increasing reliance on smartphones and tablets, coupled with the heightened possibilities empowered by AR, suggests a future in which AR will be vital to consumption and marketing, thus encouraging ORG to make use of AR in their quest to produce captivating marketing initiatives (Rauschnabel, Felix, & Hinsch, 2019).

Despite its current ability to engage customers in a unique and vivid manner, the technology of AR is, however, still considered to be in a premature stage, from the perspective of ORG and consumers (McLean & Wilson, 2019). Following this notion, marketers assess that limitations are present in the market in relation to the awareness of the potential of AR, along with the knowledge of how to properly execute it (Scholz & Smith, 2016). Researchers also express concern due to the fact that the technology of AR has not yet been fully explored, and caution that more diversified research is required, in order for ORG to fully understand the role of AR in marketing, as well as how consumers respond to it (Bulearca & Tamarjan, 2010). Moreover, the uncertainty stemming from ORG in regard to AR, centers on the question of whether or not it is a fad (McLean & Wilson, 2019), and skepticism of its ability to generate a positive return on investment (Rauschnabel, et al., 2019). Contrastingly, consumers are in favor of AR and its capabilities, however, the majority are doubtful that ORG are maximizing its potential (Hilken, et al., 2018). On those grounds, ORG considering implementing AR into their marketing initiatives could be hesitant towards the application of such, despite the technology being able to grant ORG access to uncharted territory.

### **1.3 Prevailing Research on Augmented Reality**

A significant amount of research has been devoted to AR across the academic literature, with efforts to explore and examine its utilization in a broad variety of industries, and to uncover its influence along the activities of the value chain. Initial research on AR was aimed at the practical components of its usage in industrial sectors (O'Mahony, 2015). Amongst these, research studies on its application in the medical industry were conducted, examining the potential of AR for training purposes (Kancherla, Rolland, Wright, & Burdea, 1995), and its ability to enhance surgical procedures (State, et al., 1996). In the manufacturing industry, it was also researched how AR could be applied in order to benefit the construction and assembly of automotive engines (Tuceryan, et al., 1995). Alternatively, research on the applicability of AR in the public sector, in public libraries, illustrated how AR could efficiently provide information to the user regarding the availability of books (Fitzmaurice, 1993).



Also, AR has been utilized in the military industry, especially within aviation, for the purpose of powering heads-up displays to provide critical real-time information to pilots in their aircrafts (O'Mahony, 2015).

As elaborated upon, the technological features of AR previously limited its application to industrial usage, however, the technological advancements of the modern age, which is characterized by widespread adoption of smartphones and tablets, pave the way for a much broader scope for the technological applicability of AR (O'Mahony, 2015).

As outlined above, research on AR was carried out in relation to the aforementioned industries, however, AR has only recently entered contemporary marketing research. Among the first to research AR in the realm of marketing, were Bulearca & Tamarjan (2010), who examined experiential marketing and AR, in relation to how brands could increase their brand loyalty amongst customers, along with repetitive purchase intention and *word-of-mouth* communication. Also, Jin and Yazdanifard (2015), carried out research on the ability of experiential marketing AR to facilitate a strong customer-brand connection, through the application of advanced technological equipment.

Moreover, Hopp and Gangadharbatla (2016), studied the effects of AR advertising, and how consumers engage with it. Correspondingly, McLean and Wilson (2019), analyzed how ORG may generate customer engagement from a retailer's perspective. On the other hand, Scholz and Smith (2016), outlined how marketers can leverage AR to create innovative CXs through marketing programs and campaigns, and similarly, Hilken et al. (2017), firstly explored how AR may enable superior online service experiences and subsequently, how the technology can lead to customer journey omnichannel experiences (Hilken, et al., 2018). Also, Dieck, Jung and Rauschnabel (2018), investigated AR in relation to the creation of engagement and the shaping of unique experiences. Furthermore, Yaoyuneyong et al. (2016), conducted research on consumer preferences and attitudes towards print media ads powered by AR, whilst Javornik (2016), researched the media characteristics of AR in regard to its ability to influence consumer behavior. Alternatively, Spreer and Kallweit (2014), studied the effect of AR on enhancing the flow of information towards customers at the point-of-sale.

By virtue of the aforementioned research carried out on AR in the realm of marketing, three focal areas of attention have been identified. Firstly, the focal area of engagement is identified, whereby Jin & Yazdanifard (2015), Hopp & Gangadharbatla (2016) and McLean & Wilson (2019), conducted research on the different ways in which AR fosters engagement with consumers. Secondly, the recognized focal area of unique experiences has been examined by Scholz & Smith (2016), Hilken et al. (2018) and Dieck, Jung & Rauschnabel (2018), who each assessed how AR can be utilized by ORG in order to create unique experiences, using alternative approaches. Thirdly, consumer behavior was acknowledged as a focal area, whereby it has been researched by Yaoyuneyong et al. (2016), in efforts to understand how consumer behavior is affected by AR across different contexts of application.

However, in spite of the extensive prevailing research having identified the essence of the benefits of AR towards the marketing initiatives of an ORG, research has yet to examine all three focal areas of AR in combination, namely; the ability to create engagement, form unique experiences and influence consumer behavior in relation to consumer decision-making. Consequently, the lack of research regarding the coalescence of these three focal areas of AR, represents a gap in the current research.

In addition, the researchers argue that the achievement of a sustainable competitive advantage, through the use of effective marketing, is an organizational objective of great necessity that can be leveraged in order to respond to the dynamic changes and intensifying competition of the business landscape. A SCA can be described as an ORG establishment of a unique value creating strategy, of which is simultaneously unattainable by competitors, which, over a long period of time, prevents the competitors from reproducing the benefits that an ORG derives from that strategy (Barney, 1991). In line with this, the aforementioned focal areas of AR that have been identified, are presumed to pave the way for marketing initiatives to drive an ORG SCA. In addition, the novelty related to the practice of AR, along with the dynamically shifting consumer preferences, needs and behavioral patterns, imply that great complexity is involved in the proper application of AR to an ORG marketing objectives. However, in this context, assessing whether the implementation of AR, when applied to the marketing initiatives of an ORG, can facilitate a SCA, still remains an unresearched area that is yet to be tapped into.

## 1.4 Motivation

The motivation and drive behind the formulation of this thesis was, first and foremost, evoked as a direct result of the authors' joint passion and interest in the sphere of innovation, digitalization and technology, and how these entities affect and reshape the realm of marketing. Moreover, their enrollment in the bachelor study program of *Intercultural Market Communication*, and subsequently, the master program of *Business Administration and Organizational Communication* at Copenhagen Business School, has fostered their interest and knowledge in the fields of *Marketing*, *Consumer Behavior*, *Strategic Communication* and *Branding*. Concurrently, the authors' prior and recent experiences in the working world, have generated further interest in the authoring of this thesis.

Nowadays, as a result of fierce competition in tandem with increased levels of digitalization and globalization, ORG are pressured, now, more than ever, to shift towards and adapt to utilizing modern technological advancements, in order to prosper in the increasingly complex modern business landscape. In addition, the prevalence of changing customer preferences necessitates ORG to become innovative in regard to their marketing offerings, in order to develop renewed ways of attracting customers. In line with the aforementioned, the area of technology is gaining an increased level of importance as a key element of a modern ORG marketing initiatives.

As a consequence, the advancements in technology offer ORG far greater means by which to interact with customers, which, in turn, accentuates the degree to which customers expect interaction with ORG. In this context, it is noticeably important for ORG, whom are in the pursuit of remaining competitive and achieving continuous success in the increasingly aggressive business environment, to explore the possibilities of turning to AR technology. On those grounds, the ability of AR to soften the boundaries between the digital and the physical world, has launched customers and ORG of the modern world into a new medium of contextuality.

Moreover, the prominence and primary value of AR lies within its capabilities when applied to marketing initiatives; namely, the cultivation of highly engaging offerings and the provision of unique experiences, as well as the exertion of a positive influence on consumer behavior in relation to decision-making; therefore, providing ORG with a multitude of possibilities. Also, these key capabilities of AR could potentially give way to an appropriate solution to the ever-increasing demands that exist in the challenging business environment, and thus, an ORG marketing initiatives.

Subsequently, a number of ORG have embarked on the technology of AR in search of improving the value of their marketing initiatives, however, few ORG possess sufficient knowledge of how to leverage it to its full potential. On that basis, it has been identified that the study of the potential of AR to provide an ORG with a SCA when applied to its marketing initiatives, remains unexplored. Consequently, this area provides a topic of great significance and relevance for the authoring of this thesis.

## 1.5 Research Question and Sub-research Questions

By virtue, the authors aspire to thoroughly dissect and analyze the ramifications of AR within the field of marketing, with a focus on how marketing initiatives, when enhanced with AR, can help an ORG develop a SCA, resulting in more attractive offerings to customers, and ultimately, helping the ORG to rise above competitors.

In an effort to unveil a better and more in-depth understanding of AR and its utilization within the marketing initiatives of a modern ORG, the keys to its success, and whether or not it can evoke the development of a SCA, on the basis of being able to create engagement, form unique experiences and influence consumer behavior in relation to consumer decision-making, the following research question has been constructed:

*“How can organizations achieve a sustainable competitive advantage through applying the technology of Augmented Reality to their marketing initiatives?”*

Subsequently, with the goal of effectively answering the above research question, three complimentary sub-research questions have been devised:

- *In which way(s) does Augmented Reality facilitate engagement between an organization and its consumers?*
- *How can Augmented Reality enable organizations to create unique experiences?*
- *How does Augmented Reality influence consumer behavior in relation to consumer decision-making?*

## 1.6 Definitions

*The following section entails, a definition of the key terms, as well as a list of the abbreviations of terminology that have been utilized throughout the entirety of this thesis. Definitions of the utilized terminology have been listed, in order to clearly illustrate and portray the substance pertaining to the researchers' understanding and perspectives of the utilized terminology. Moreover, the abbreviations have been used to refrain from the implementation of lengthy and comprehensive wording, and to ensure a smoother reading experience.*

### 1.6.1 Definitions

#### Consumer

In this thesis, a *consumer* is construed as an individual who either purchases a product or service for their own utilization or consumption, or is the end user of goods or services.

#### Consumer Goods Industry

In this thesis, the industry of consumer goods relates to the production of items by brands, companies and organization that are to be purchased and/or consumed by individuals or households.

#### Customer

In this thesis, a customer is referred to as an individual who buys products or services, from a brand, company or an organization.

#### Marketing Initiatives

The terminology of marketing initiatives, when utilized throughout this thesis, refers to the set of initiatives that organizations deploy in regard to the creation, communication, delivery and exchange of offerings that create value for customers and consumers.

#### Net Promoter Score

The term Net Promoter Score, alternatively referred to as 'NPS' determines an organizations offerings in relation to CXs and predicts business growth.

#### Service Experience Industry

In this thesis, the service experience industry relates to brands, companies and organizations that operate to create intangible or tangible experiences for individuals and households.

#### Sustainable Competitive Advantage

A sustainable competitive advantage can be described as an organizations establishment of a unique value creating strategy, of which is simultaneously unattainable by competitors, which, over a long period of time, prevents the competitors from reproducing the benefits that an organization derives from that strategy (Barney, 1991).

### 1.6.2 Abbreviations

#### AR

In this thesis the term of “AR” is an abbreviation for the technology of Augmented Reality.

#### B&O

“B&O” is used as an abbreviation for the case organization of Bang & Olufsen.

#### CBE

“CBE” is an abbreviation that refers to Customer Brand Engagement.

#### CDM

“CDM” is an abbreviation that refers to Consumer Decision-Making.

#### CDMP

The Consumer Decision-Making Process will be abbreviated as “CDMP”.

#### CGO

“CGO” refers to organizations within the Consumer Goods industry.

#### CX

In this thesis, “CX” refers to *Customer Experience*.

#### EKB

“EKB” is an abbreviation of the *Engel-Kollat-Blackwell model*.

#### IT

In this thesis, “IT” refers to *Information Technology*.

#### MR

“MR” is an abbreviation for the technology of *Mixed Reality*.

#### ORG

“ORG” is an abbreviation for organization(s).

#### RM

The abbreviation “RM” refers to the concept of *Relationship Marketing*.

### *ROI*

In this thesis, “ROI” is to be understood as an abbreviation for an organization’s *Return on Investment*.

### *SCA*

The abbreviation “SCA” refers to the concept of *Sustainable Competitive Advantage*.

### *SX*

The abbreviation “SX”, refers to *Service Experience* throughout this thesis.

### *SXO*

“SXO” refers to organizations with the Service Experience Industry.

### *TA*

In this thesis, the term “TA” is an abbreviation for *Technology Acceptance*.

### *TAM*

“TAM” is an abbreviation of the *Technology Acceptance Model*.

### *TI*

In this thesis, the abbreviation of “TI” refers to the case organization of Tivoli.

### *VR*

“VR” is used as an abbreviation for the technology of Virtual Reality.

### *WOM*

The abbreviation of “WOM”, refers to Word-of-mouth, whereby information is passed from one individual to another orally.

### *ZOO*

“ZOO” is used as an abbreviation for the case organization of København Zoo.

## 1.7 Delimitations

*During the process of authoring this thesis, the adherence to a specific set of delimitations has been found to be highly beneficial, by virtue of limited available time, available resources and scope of the thesis. A set of particular delimitations has been applied, by reason that a confined scope can provide the researchers with a greater capacity to produce a more concise and in-depth analysis, discussion of theories and findings.*

### 1.7.1 Technological Scope

In order to produce concise results, the technological scope has been limited to solely focusing on the technology of AR, and will therefore not be extended to other similar technologies; such as, *Virtual Reality and Mixed Reality*. Consequently, the main research question confines the technological scope of concern. Lastly, the technological scope of this thesis refers solely to the utilization of AR by ORG, specifically in relation to AR apps on mobile devices such as smartphones and tablets.

### 1.7.2 Business Areas of Application

By virtue of the utilization of AR across multiple industries and business areas, and thereby fulfilling a vast array of tasks, it necessitates the researchers to limit and confine the scope of its application. In this regard, this thesis has been delimited to two main business areas of application, namely; service experiences and consumer goods. The basis of applying this limitation is as a result of the chosen case ORG, which are comprised of two ORG operating within the service experience industry, and one operating within the consumer goods industry.

### 1.7.3 Theoretical Framework

The theoretical framework adopted by this thesis has been delimited to theories covering the three main focal elements of AR, as seen within Chapter 1. Henceforth, the theoretical framework will be thoroughly examined in Chapter 4. In addition, this chapter contains in-depth discussions of the proposed theories and literature and their relevance, as well as contrasting views and critique proposed by other researchers, which will be applied within Chapter 6 of this thesis.

### 1.7.4 Analyses

The analytical framework adopted by this thesis has been delimited on the basis of the three identified focal elements of AR within an ORG marketing initiatives, namely; engagement, customer experiences and consumer decision-making, as seen in Chapter 1. Henceforth, in Chapter 4, the analytical framework consists of three sections, all of which utilize models and frameworks to dissect and analyze each of the aforementioned focal elements of AR. Firstly, in relation to the first section, on engagement, the analysis has been delimited to consist of the conceptual CBE model proposed by Carvalho and Fernandes (2018) and subsequently supported by the TAM2 model as suggested by Venkatesh and Davis (2000). In connection, the aspect of *experience* within the TAM2 model has been excluded due to its insignificance



for the scope of this thesis, as the latter is not formed upon increased experience with a specific AR app. Moreover, the social influence process of *voluntariness*, has also been excluded due to it only being applicable in contexts wherein usage is mandatory, and the scope of this thesis encompasses purely voluntary usage contexts. Furthermore, in regard to the second section on CX, the analysis has been delimited to entail the application of the general framework of CX, adopted from Gentile, Spiller, & Noci (2007). Lastly, the analysis of CDM has been performed through the use of the EKB model, as outlined by Blackwell, Miniard and Engel (2006).

By virtue of having delineated the limitations applied within the analytical framework of this thesis, the reasoning and the applicability of each theoretical construct utilized during the analyses, is to be found within the theoretical framework, in Chapter 4 of this thesis.

### **1.7.5 Research**

The conducted research within this thesis has been limited to be comprised of three qualitative semi-structured interviews and a quantitative online survey, the results of which will be outlined in Chapter 6. The survey initially contained 145 respondents, however, by virtue of the survey containing an initial filtration question, in order to secure that the research was based on respondents who have prior experience in the utilization of AR, the number of respondents was further limited to 102. In extension, the researchers have identified that the technology of AR and its consumers, have been analyzed extensively by a broad array of researchers. Therefore, secondary data from various sources has been put to use, in order to complement the primary data gathered. In addition, the researchers have assessed and acknowledged that replicating this prior academic work would not have added further value, as a result of the limited time at hand.

## 1.8 Project Outline

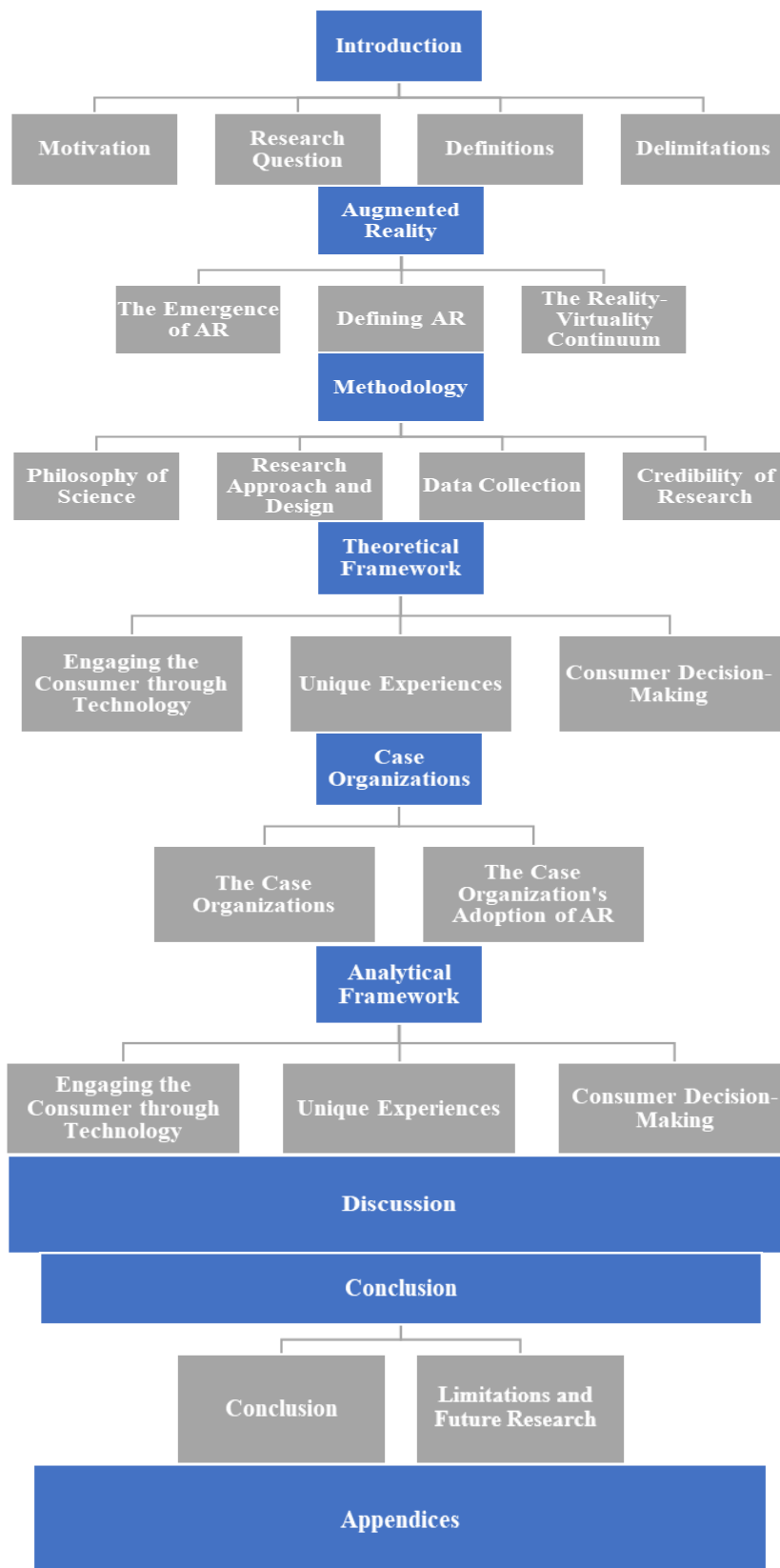


Figure 1, Project Outline, Own Creation, 2020

## CHAPTER 2: AUGMENTED REALITY

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*The goal of this chapter is to outline the Emergence of Augmented Reality, its definitions and characteristics within the realm of marketing.*

### 2.1 The Emergence of Augmented Reality

In the 1950s, Morton Heilig created and applied special features to cinematography, which he named “Sensorama”. These cinematic features were the first known forms of AR (Javornik, 2016), which is a technology that “*represents an innovative media format that integrates virtual information into a user's perception of the real- world*” (Rauschnabel, Reto, & Hinsch, 2019, p. 43). Subsequently, in the line of early AR adopters, in 1965, Ivan Sutherland created the first head-mounted AR display featuring the earliest AR interface, through the overlay of a simple wireframe cube onto the real world (Poupyrev, et al., 2002).

Followingly, in 1974, Myron Krueger created “Videoplace”, a project that enabled participants to be immersed in a virtual environment (Cardoso, 2019). Through creating an interactive environment with the silhouettes of participants (Berger-Haladová & Feroke, 2019), users could interact with a virtual object for the first time (Kipper & Rampolla, 2012). Through a project for Boeing, aimed at optimizing the processes of manufacturing and engineering, Tom Caudell and David Mizelli were the first to coin the term “Augmented Reality” (Kipper & Rampolla, 2012). The technology of AR assisted Caudell and Mizelli in the practice of correctly placing cables during aircraft manufacturing processes, by overlaying the accurate positions for the cables (Kipper & Rampolla, 2012).

In 1994, Ronald T. Azuma, accompanied by teammates, carried out research on making AR applications increasingly functionable for outdoor usage (Azuma, Hoff, Neely, & Sarfaty, 1999). By accommodating to the movement of an AR user, Azuma and his team found ways to contend with the necessity of users to stand still while using AR applications, providing for more liberty of movement (Azuma, et al., 1999).

Furthermore, the development of AR Quake in 2000, represented the first AR game suitable for outdoor environments (Avery, Piekarski, Warren, & Thomas, 2006), while in 2004, Möhring, Lessig, & Bimber (2004) presented the first running video on a consumer mobile phone with see-through AR that was capable of detecting and differentiating between a variety of markers, and integrating 3D graphics.

Moreover, in 2006, Nokia applied AR technology in a MARA (Mobile Augmented Reality Applications) research project, through which users could, via AR technology, trigger additional information about objects by pointing their phones’ cameras at them (Omerčević & Leonardis, 2011). In 2014, proceeding efforts led Google to create the Google Glasses, which created immersive experiences through the augmentation of reality, through mobile apps (Google, 2020). Lastly, in 2016,

Microsoft launched their HoloLens, which, similarly to Google, comes in the form of a pair of glasses, however, it is more powerful and is utilized internally by ORG (Microsoft, 2020).

## 2.2 Defining Augmented Reality

Concurrent to its growing prominence, a large number of researchers have studied the technology of AR under different contexts and additionally, offered their definitions (Nincarean, et al., 2013). In the fields of computer sciences and educational technology, Milgram et al. (1995), have proposed two different approaches to the definition of AR, one that is broad and one that is restricted. In the broad approach, AR pertains to “*augmenting natural feedback to the operator with simulated cues*” (Milgram, et al., 1995, p. 283), while the restricted approach posits that AR is “*a form of virtual reality where the participant's head-mounted display is transparent, allowing a clear view of the real world*” (Milgram, et al., 1995, p. 283).

With regards to the restricted definition of AR, it has been challenged by a variety of researchers (Klopfer, 2008; Broll, et al., 2008; Johnson, Levine, Smith, & Haywood, 2010; Liu, 2009), whom suggest that AR could be produced and realized within a number of different technologies, for example, computers, head-mounted displays and handheld devices.

Moreover, a broad definition of AR is provided by Klopfer and Squire (2008), whom propose the definition that AR is “*a situation in which a real world context is dynamically overlaid with coherent location or context sensitive virtual information*” (Klopfer & Squire, 2008, p. 205), whereby the emphasis placed on information is also apparent in Craig (2013) definition of the technology: “*Augmented Reality is a medium in which information is added to the physical world in registration with the world*” (Craig, 2013, p. 15). Additionally, another early definition of AR was presented by Azuma, who proclaimed that AR can be defined as “*any system that has the following three characteristics: 1. Combines real and virtual, 2. Is interactive in real time, 3. Is registered in three dimensions*” (Azuma, 1997, p. 356).

Furthermore, in extension to defining AR, other researchers suggest that AR may be categorized on the basis of its applicability and technological construct. In reference, Edwards-Stewart, Reger and Hoyt (2016), posit grouping AR as either *trigger-based augmentation*, which pertains to AR that is triggered by external stimuli or *view-based augmentation* which refers to forms of AR that entail digitized augmentations with no relation to what is in view, thus a view that is static or stored.

Contrastingly, Javornik (2014), proposes three types of classifications through which AR can be categorized, namely; *outdoor* and *indoor*, *marketing functions* and *hedonic* and *utilitarian needs*, which takes the utilization of AR into account on the basis of the context of consumers and how AR tools support specific marketing functions, as well as how these tools may appeal to the utilitarian and hedonic needs of consumers.

As presented, the technology of AR has been subjected to numerous definitions of varying similarity. In sum, it is presumed that the technology's ability to add virtual elements to the real world is a common ground among researchers of the technology. Furthermore, the perceptions of AR, VR and MR are often confused by one another (Agrawal & Patel, 2017; Tan & Soh, 2010) and thus, the following section will address the distinction between these two technologies.

## 2.3 The Reality-Virtuality Continuum

The technologies of AR, VR and MR are often confused with one another, and consequently, the distinctiveness and individual characteristics of each of these technologies, has been outlined in the *Reality-Virtuality Continuum*, which presents an overview of these technologies, along a continuum of purely real and virtual environments (Milgram, Takemura, Utsumi, & Kishino, 1994), (Appendices, 9.1.1). In relation to environments, purely real environments are regarded as that which is solely comprised of real objects, in addition to what can be seen in the real-world, by a person or through the likes of a video display, while purely virtual environments are outlined as being composed of by virtual objects exclusively (Milgram, et al., 1994). In line with the Reality-Virtuality Continuum, it is argued that everything that lies in between these two opposing ends should be considered as MR (Milgram, et al., 1994).

In addition, it is suggested that MR is comprised of two sub-categories, namely AR, through which the real world is augmented by the virtual, and *Augmented Virtuality*, in which the virtual world is augmented by real-world entities (Milgram, et al., 1994). By virtue, it is denoted that all AR systems are MR, however, not all MR systems are AR (Lonergan & Hedley, 2014).

In regard to the relationship between the technologies of AR and VR, the question over which of the two has been derived from the other, can be viewed as indistinguishable, as some researchers suggest that AR is a sub-category of VR, while others are in support of the contrary (Azuma, 1997; Craig, 2013), and moreover, some consider neither to be true (Peddie, 2017).

Although this relationship is contentious, it remains clear that the two technologies are different in the user-experiences that they create (Peddie, 2017) and particularly, the extent to which the real world is involved.

While AR supplements the physical real world with virtual content (Kamphuis, Barsom, Schijven, & Christoph, 2014; Azuma, et al., 2001), VR immerses users in a fully computer-generated world (Hoffman, 2004). As such, AR enables users to perceive the real world and its locations and objects, simultaneously to added virtual components (Billinghurst, 2002; Kaufmann, 2003), as opposed to VR, through which users are completely separated from the real world (Cruz-Neira, et al., 1993).

## CHAPTER 3: METHODOLOGY

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*The following chapter will elaborate upon the epistemological and ontological stance adopted throughout this thesis, along with a presentation of research methods utilized and considerations taken in order to ensure the reliability and validity of the conducted research.*

### 3.1 Philosophy of Science

When conducting a research study, it is critical to consider the *Philosophy of Science* and its most important perspectives, namely; *ontology* and *epistemology*, as ultimately, the stance taken affects the choice of methodology and the entire analytical approach. Essentially, the philosophy of science addresses the foundations, assumptions, methods, usage and the merit of science, and its connection to the realm of philosophy. In effect, its construct questions what one qualifies as science, the validity and reliability of scientific theories and what the overall purpose of science is comprised of (Rosenberg, 2005).

#### 3.1.1 Ontology

From a philosophical perspective, the term *ontology* can be defined as the understanding and justification of the nature of social bodies. In this regard, the term can be construed as a ‘study of being’ (Bryman, 2016). Following this notion, ontology is a theory of the nature of social entities, as it seeks to question the nature of reality, in which it regards human presumptions and reflections of the organizational and social reality. Hereby, a focal viewpoint of the philosophy of ontology, is to question whether social entities can be considered as objective entities that are comprised of a reality that is external to social actors, or whether they can be considered as social constructions, created from the perceptions and actions of social actors. With this said, two different perspectives are derived from the philosophy of ontology; namely, objectivism and constructivism (Bryman, 2016).

#### Objectivism

The term *objectivism* can be described as an ontological stance, which is based on an observation of objects and events, with a strong focus on objects, rather than feelings or thoughts, hereby, implying that social phenomena are constructed through external objects and events that exist independently from social actors (Bryman, 2016). Consequently, as social entities are regarded as external to the actor, and are therefore construed of a tangible reality of their own, in which they behold characteristics of objects, making for an objective reality (Bryman, 2016).

#### Constructivism

Contrary to objectivism, the ontological stance of *constructivism* accentuates that social phenomena, and their respective meanings, are continuously being achieved by social actors, meaning that social phenomena and their interconnected categories are not solely created through social interactions, but exist concurrently, in a constant state of revision (Bryman, 2016).

Hereby, this ontological stance confronts and challenges the stance of objectivism, as it deems the underlying categories as “...*pre-given and therefore confront social actors as external realities that they have no role in influencing*” (Bryman, 2016, p. 30). In sum, constructivism connotes that all individuals have an impact on social phenomena and how these are discerned, whereby social reality is viewed as a dynamic construct of social actors “...*rather than something external to them and that totally constrains them*” (Bryman, 2016, p. 30).

### 3.1.2 Epistemology

The term *epistemology*, which is also referred to as the theory of knowledge, can be defined as the exploration of the nature, extent, and justification of both human knowledge and metaphysics, and aspires to determine the most integral issues that are in existence in reality, and how these relate to one another (Rosenberg, 2018). Moreover, when utilizing multiple epistemologies, it is important to be aware that the competing epistemological stances each contain a set of implications that determine the methodological approach, which ultimately leads to the knowledge; both of which are defined by the epistemology. Two fundamental approaches exist within the philosophy of epistemology: *neo-positivism* and *hermeneutics* (Rosenberg, 2018).

#### Neo-Positivism

The paradigm of *Neo-positivism* is built upon the paradigm of *Positivism*, which is concentrated on the notion of relying heavily on facts and verification, when seeking to understand reality and obtain knowledge (Strydom & Delanty, 2003). According to Otto Neurath, the paradigm of neo-positivism is “*characterized by the reduction through logical analysis of the meaning of sentences to the simplest statements about something empirical. Scientific knowledge thus derives from experience which in turn rests on what is immediately given. From this point of view, metaphysics and apriorism are rejected since both lack the necessary basis in the experience of positively given empirical objects and states of affairs*” (Strydom & Delanty, 2003, p. 18).

Moreover, as evident in the above definition of neo-positivism, it becomes apparent, that the central differentiating aspect between these two alternative variants of positivism is to be found within their ontological and epistemological stance. The paradigm of neo-positivism differentiates itself from its founding paradigm of positivism, as neo-positivism challenges the notion of being able to arrive at the exact truth and considers individuals as being constantly being swayed by values and feelings. As a result of such, the ontology of neo-positivism can be perceived as being ‘moderately realistic’ (Voxted, 2006, p. 56). Furthermore, the epistemological foundation at the core of positivism requests individuals to be objective, whereas neo-positivism adopts a softer approach, requesting a ‘modified objective’ outlook (Voxted, 2006, p. 56), whereby the approach evidently becomes more subjective. In addition, the overall ambition for supporters of positivism is to remain as objective and neutral as possible.

Nonetheless, according to individuals pursuing the paradigm of neo-positivism, this is not achievable in reality, as human nature in its very essence does not allow individuals to step away from their subjectivity; by which they are always influenced unconsciously. However, neo-positivism prescribes that individuals should aspire towards acting as objectively as possible, and in connection, assessing reality as precisely as possible. Lastly, the methodology of neo-positivism can be described as being ‘experimentally modified’, as continuous contact with research subjects, can result in difficulties and challenges when striving for objectivity. This approach is most commonly utilized by researchers following a quantitative methodology (Voxted, 2006) .

## Hermeneutics

The paradigm of *hermeneutics* was first outlined as a discipline that relates to the task of characterizing and justifying a linked methodology of interpretation, which initially was limited to text. However, this paradigm has evolved into multiple other realms of interpretation. Moreover, the paradigm of hermeneutics is commonly defined as ‘the science or art of interpretation’ (Scholz, 2015, p. 778).

In line with this definition, the hermeneutic approach is constructed on the fundamental assumption that individuals can only understand ‘reality’ through the interpretation of others. Moreover, reality can solely be discerned by individuals through experience and knowledge collected via the language and actions of another individual (Scholz, 2015, p. 778). In effect, the hermeneutical approach presumes that individuals seek interpretation on the basis of actions that occur explicitly due to their interpretive individualistic construct, and thus empowers them to generate self-made subjective interpretations based on the experiences that they have been subjected to (Bryman, 2012). In relation to the latter, researchers and individuals who utilize the hermeneutic approach, will, as a result, aim to obtain a holistic perspective during the research process.

Moreover, this paradigm stands in direct contrast to the aforementioned approach suggested by neo-positivism. The reasoning for this is due to the strong interconnected dependency on the ability of the individual to behave both in an objective and partially subjective, manner in their interpretation. The hermeneutic approach is most commonly applied when carrying out a qualitative research methodology (Bryman, 2012).

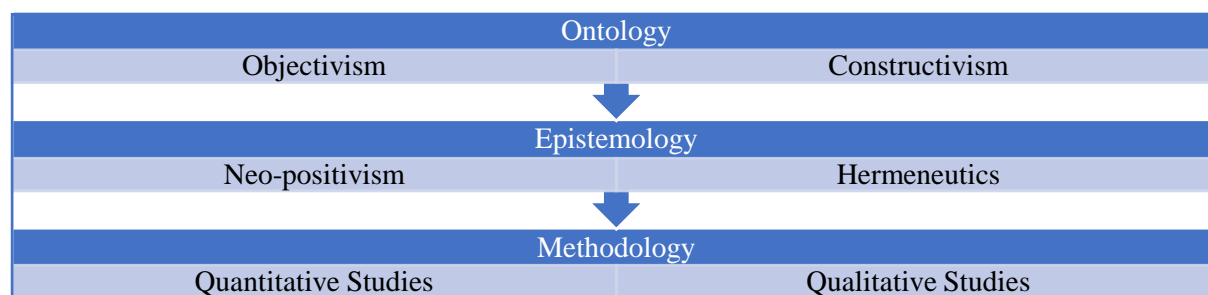


Figure 8, The Interrelation of Ontology, Epistemology and Methodology, Own Creation, 2020



### 3.1.3 The Ontological and Epistemological Stance within this Thesis

In this thesis, the applied ontological stance has been a combination of *constructivism* and *objectivism*. With regards to the epistemological stance taken, two different paradigms have been applied; firstly, a hermeneutical approach will be taken, followed by a neo-positivistic approach. Initially, during the qualitative part of the research conducted in this thesis, the ontology of *constructivism* and the epistemology of *hermeneutics* have been applied, with the main aim of demonstrating that the transpiring developments are outcomes of social interactions, and are therefore, in a continuous state of revision (Bryman, 2012). Evidently, the paradigm of hermeneutics is highly relevant where the researcher is not aware of the dynamic determinants.

In the context of the research carried out in this thesis, the core determinant revolves around the uncertainty in relation to whether or not the implementation of AR to an ORG marketing initiatives can empower a SCA. The notion of such, has accordingly been addressed through the examination of the impact of AR on customer engagement and its ability to shape unique experiences, as well as assessing its effect on the CDMP.

Secondly, during the quantitative part of the research conducted, the ontological stance of *objectivism*, and the epistemological stance of *neo-positivism*, have been utilized. Moreover, as the latter is dependent on facts and verification, it states that wisdom is founded by observing objects and events, whereby it has been employed to gather knowledgeable insights pertaining to the opinions of customers, compared to the motives of the ORG for utilizing AR in their marketing initiatives.

As evident in this section, this thesis has intrinsically applied the research approach of mixed methods, whereby the conducted research integrates both qualitative and quantitative research methodology into the same realm; which is known as *triangulation* (Bryman, 2016). In this context, triangulation is perceived as an efficient path for researchers, as it provides the opportunity to gain an in-depth understanding of the criteria, facts and opinions, unveiled by this distinctive methodology (Bryman, 2016). As a result, triangulation empowers researchers to identify multiple perspectives pertaining to the same issue, and to ascertain how the different perspectives can compensate for one another's blind spots (Bryman, 2016).

## 3.2 Research Approach and Design

### 3.2.1 Research Approach

Regarding the applied research approach in this thesis, it has been identified that when considering prevailing and classic approaches to conducting research, there exists two general approaches; namely, *induction* and *deduction* (Stadler, 2004). Firstly, the inductive approach is built upon the notion of taking an opposing stance in terms of research, as it concentrates on distinct observations, which subsequently result in the forming of more general hypotheses (Stadler, 2004).

In contrast to induction, the deductive approach entails the notion of working from a general outlook, to the more specific. Moreover, the deductive research approach links theory to the social research, whereby a theory is applied in relation to a specific topic, and is subsequently, channeled and narrowed down into more specific hypotheses that the researcher may be able to test. Thus, the research is further constrained as a consequence of gathering additional observations that address the hypothesis. Accordingly, one may subsequently test the hypotheses with data, which either results in its confirmation or rejection (Stadler, 2004).

Notedly, in connection to the latter, the research approach is ultimately constrained by the research paradigm. Moreover, as a result of the adopted ontological and epistemological stances, and the mixed method approach, both the inductive and deductive approach have been applied within this thesis.

### 3.2.2 Research Design

In regard to the research design implemented in this thesis, the *exploratory sequential design* has been applied, which as a result, has evoked and laid the foundation for this thesis (Creswell, 2014). In effect, the latter design has resulted in the conduction and utilization of qualitative semi-structured interviews in order to form a general theory, which subsequently, has empowered the testing of such within the quantitative online surveys (Creswell, 2014).

Additionally, it has been identified that the conduction of *exploratory* research, is highly applicable and relevant when the researcher holds limited knowledge in relation to the specific area under research. In this regard, the application of an inductive research approach is suitable, as data is gathered and subsequently confirms a theory, that draws upon generalized conclusions from multiple standalone cases (Bryman, 2016). The quantitative survey conducted, and the knowledge obtained as a result, has enabled a narrowing of the research, down to more specific topics, whereby secondary data has additionally been collected to reinforce and complement the most relevant and crucial topics.

As a result of such, it has empowered the conducted research method to evolve from an inductive approach into a more deductive approach, which correspondingly, has paved the way towards making the findings more generalizable (Bryman, 2016).

In extension, by utilizing the exploratory sequential design when carrying out research, one is able to incorporate the most vital and significant aspects from both the qualitative and the quantitative methodological approaches (Creswell, 2014).

### 3.3 Data Collection

*This section details the methodological approach taken in regard to the utilized primary data in the form of conducted semi-structured interviews, the online survey carried out, and the utilization of secondary data.*

#### 3.3.1 Primary Data

##### Semi-structured Interviews

In regard to the initial data collection method applied during the qualitative part of the research process, *semi-structured interviews* have been selected as the method of choice, rather than that of *focus groups*, as a result of wanting to investigate an individual's experience and attitude towards AR within marketing initiatives, rather than the more general findings that may arise from a group discussion of AR, and its presence in marketing initiatives (Bryman, 2016). Moreover, when performing semi-structured interviews, it is a prerequisite that the researcher sets aside his own presumptions and understandings (Kozinets, 2019). In doing so, the semi-structured interview, as a data collection method, empowers the researcher to unveil and collect knowledge pertaining to the interviewees current life situation, attitudes and opinions, in relation to the research topic at matter (Tinggaard & Brinkmann, 2010). Consequently, it is therefore possible for one to gather nuanced and thorough results, established through a strictly limited number of performed interviews.

Furthermore, the utilized research questions have been created, in accordance with and on the basis of, the hermeneutical approach, both of which, in turn, have formed the structure of the semi-structured interviews, keeping the research questions in mind (Appendices, 9.2). The reasoning for this, is due to the need to maintain a correlation between the conducted interviews and the research questions (Tinggaard & Brinkmann, 2010).

The researcher's selection of interviewees are comprised of three individuals, two women and one man, in prominent positions within the respective marketing departments of their ORG, who utilize the technology of AR in order to enhance their marketing initiatives.

Moreover, the researchers have opted for the aforementioned interviewees, as these candidates facilitate the gathering of valuable insights in relation to the research topic at matter, from two overarching industries, namely; service experiences and consumer goods.

### Online Survey

As previously mentioned in Section 3.1.3, the quantitative part of this thesis entails an implicit change of paradigm, meaning shifting from the hermeneutical approach to the approach of neo-positivism. The online survey was constructed on the basis of the insights and results gathered from the semi-structured interviews. As outlined in Section 1.7.5, the online survey was initially carried out by 145 respondents, of which 102 were deemed relevant. Furthermore, prior to and whilst performing the surveys, the respondents were reassured that they had enough time in order to answer the questions. Subsequently, this resulted in a higher likelihood that the researchers could collect responses covering a broader scope, thus resulting in the avoidance of the probable “*interviewee effect*”, which can occur in the relationship between researchers and the interviewees (Andersen, 2013).

The performed online survey was constructed by utilizing simple and clear questions, written in uncomplex language, in an effort to ensure that the respondents clearly understood the contents of the questions (Appendices, 9.5). Moreover, the questions were composed to be as precise and brief as possible, with the goal of obtaining the most necessary and vital data. Prior to conducting the actual online survey, a trial run was performed utilizing trial-respondents. By doing so, potential inaccuracies and errors in the final online survey were refrained from (Andersen, 2013).

Additionally, the researchers have also taken the event of cancellations into account, which could potentially result in parts of, or the entire survey, being left unanswered, which in effect could potentially destabilize the overall results. Consequently, the survey was created and designed in a logical manner, whereby respondents were first met with uncomplicated questions, such as questions pertaining to demographics. The subsequent questions were formulated as in-depth questions, which aimed to unveil the views and opinions of the respondents of AR, in an organizational and marketing related setting.

Furthermore, the online survey was constructed utilizing an initial filtration question, in an effort to ensure that respondents had utilized AR, so that if they had not, that they could then be discarded. In addition, the formulated questions of the online survey were comprised of closed questions with fixed answers, but also entailed open questions, which, in turn, enabled respondents to formulate their own answers. Moreover, the results derived from the online surveys empowered the researchers to statistically process the data, whilst refraining from gathering anticipated and expected answers from the respondents (Tanggaard & Brinkmann, 2010).

### 3.3.2 Secondary Data

In addition to the utilization and collection of primary data sources, such as the semi-structured interviews and the online surveys, a broad magnitude of secondary data sources have been utilized during the research process and authoring of this thesis.

In addition, as addressed in Section 1.7.5, the technology of AR has been thoroughly analyzed by a vast number of credible official and independent institutions.

In line with this, the researchers have attained further insights and information through the following types of sources, each of which have been evaluated on the basis of being unbiased and valid (Yin, 2018):

- External market insight reports
- External textbooks and periodicals
- External academic journals and published articles
- Internal and external website sources
- Internal business reports

## 3.4 Credibility of Research

When conducting a research study, it is of great importance to address the concepts of *validity* and *reliability*, in relation to producing research that is credible and of a high quality (Mills, Durepos, & Wiebe, 2010).

The term validity can be described as the degree to which research correctly and accurately quantifies and qualifies what it sets out to measure (Ekbatani, 2011). Additionally, the term reliability refers to the ability of the research to present stable and consistent results, despite changing circumstances (Ekbatani, 2011). In relation to the validity of the performed semi-structured interviews, an issue that is commonly seen to arise, is that researchers may be biased in regard to expressing a certain position or opinion towards the researched subject at matter (Pannucci & Wilkins, 2010).

In line with the aforementioned, the conducted research does not exhibit bias towards the subject at matter, as neither of the researchers have a stake in the selected case ORG, or any prior work experience in the area of AR in marketing. Moreover, in order to ensure that research is conducted in an unbiased manner, it is of great importance to desist from responding to answers provided by the interviewees, which aids researchers in separating themselves from the subject at matter; which has been considered during the conduction of the qualitative semi-structured interviews.

Also, in an effort to verify that the assertions and opinions of the interviewees were collected and processed transparently, and hereby remained unaltered, the interviewees were given a copy of the transcribed interview prior to finalizing the phase of data collection (Cucliffe & McKenna, 1999). In

addition, direct speech quotes from the performed semi-structured interviews have been utilized in Chapter 6 and 7 of this thesis, ensuring that the opinions and statements of the interviewees are accurately depicted, and not those of the researchers.

Furthermore, it came to light that the interviewees may have been affected by a small, but significant, level of bias in regard to their statements and opinions on AR, as a result of their prior work experiences in the field. Due to this, the provided answers obtained from the interviewees have been cross-checked, prior to being treated as a valid source of information. Likewise, to enhance and reassure the overall reliability, the conducted semi-structured interviews have been recorded and transcribed. In addition, to ensure that the interviews entail a broad scope, the researchers have ensured the inclusion of multiple opinions from the interviewees, as well as the inclusion of both verbal and non-verbal communication (Peräkylä, 1997).

In line with the aforementioned, the data utilized in this thesis has solely been obtained from highly credible sources, for example, official organizational records, journals, reports, market data and articles. Moreover, the data sourced for this thesis was cross-checked with multiple other sources in relation to references, hereby securing the overall credibility of the provided contents in the utilized sources.

Besides credibility, a crucial ambition for the researchers, has been to empower, and thus, secure, the reliability of the findings in this thesis, with the goal of ensuring that the research is deemed credible. Additionally, it requires that the gathered results are dependable, and that they are subsequently free of any external influences (Mills, et al., 2010).

In addition, the gathered secondary data must be processed and utilized in a fashion that empowers and secures the consistency of the results, as performed by other researchers, meaning that the researchers must be able to uphold the inter-rater reliability (Weber, 1990). The notion of such has been achieved by the authors of this thesis by processing the secondary data without any bias or prejudice. Furthermore, this approach has also been applied in regard to the utilization of these sources, during which the researchers were mindful to assume an unbiased approach, considering the central contents, and not just standalone sections.

By means of such, it has been ensured that neither opinions nor biases that could potentially emit from the researchers, are reflected in this thesis. All of the aforementioned approaches have been executed, in order to guarantee that the conducted research is valid and reliable, and therefore, as credible as possible.

## CHAPTER 4: THEORETICAL FRAMEWORK

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*This section entails an overview of theories, frameworks and models that have been applied throughout this thesis, by addressing three central themes, namely; Engaging the Customer through Technology, Unique Experiences and Consumer Decision-making.*

### 4.1 Engaging the Customer through Technology

#### 4.1.1 The Theoretical foundations of Customer Engagement

The concept of customer engagement first emerged in the realm of marketing in recent years. Hereby, the foundation and the evolvement of the theoretical constructs in this sphere, is widely believed to emanate from exploratory research that draws upon the expanded domain of relationship marketing, as undertaken by (Doorn, et al., 2010; Brodie, Hollebeek, Juric, & Ilic, 2011; Vivek, 2009; Bijmolt, et al., 2010; Vivek, Beatty, & Morgan, 2012). Furthermore, contemporary advancements within RM build upon the thought that individuals can be viewed as ascetic mediums in the value creation process of an ORG, and therefore must be diligently engaged in their transactions with the ORG. Consequently, the concept of CE has arisen, and is gaining increased attention from both researchers and ORG.

However, the preceding concept of engagement, from which CE has been derived, is considered to be a more mature concept, and has been researched extensively over the past decade across a broad range of disciplines within academia such as organizational behavior, psychology, sociology and political science (Achterberg, et al., 2003). Thus, the interpretation of the concept is dependent on the context it is presented within (Little & Little, 2006).

Accordingly, the subsequent section will outline the expanded domain of RM, in relation to the evolving developments within the realm of marketing and the concept of engagement.

#### 4.1.2 The Expanded Domain of Relationship Marketing

In general, the perspective of RM builds upon an exchange-centric view in which it examines an ORG services and products as the focal element. Furthermore, on the basis of the latter assertion, the stream of communication circulates outwards from the ORG to the consumer, with the goal of enticing consumers, and moreover, to secure that the value proposed by the ORG is perceived by the consumers (Prahalad & Ramaswamy, 2004). In line with this viewpoint, consumers can be perceived as the inactive party during the transaction between the ORG and the consumer, due to the fact that CE is derived externally; an outlook that contrasts with the stance of traditional marketing (Bijmolt, et al., 2010).

In addition, the expanded domain of RM circulates around the notion of being constructed upon an experience-centric approach, which determines its difference from the stance of traditional marketing (Vivek, 2009). Furthermore, according to Vivek (2009), the core value of RM relates to the experiences

consumers encounter during a process of co-creation, in which consumers are seen to be included within the value creation processes of an ORG.

Moreover, the term *the expanded domain of RM*, coined by Vivek, in general, relates to contemporary advancements within the field of marketing (Vivek, 2009). Concurrently, Prahalad & Ramaswamy (2004), contributed to the field with the terminology of *value co-creation*. Herein, they articulate that ORG strongly reinforce their efforts in relation to the traditional business and product-oriented approach, through the provision of an embodied consumer experience, in which active, empowered, networked and informed consumers are co-creating value in connection with the business (Prahalad & Ramaswamy, 2004).

Equivalently, Vargo (2009) argues and proposes that ORG are increasingly moving from a G-D logic, or a goods dominant logic, towards a S-D logic, or a service dominant logic. Therefore, this shift implies that ORG are not able to create value directly, but rather, are capable of offering value propositions, which in effect enable the creation of value in collaboration with the consumer, and thus, the provided service is, inherently, a singular stream of input towards the value-creating activities of the consumer (Vargo, 2009). In sum, the latter two researchers explicitly suggest that value is created as a result of the joint efforts of ORG and its consumers, through co-creation.

Correspondingly, Ashley, Noble, Donthu and Lemon (2011), draw attention to the implementation of CE within the discipline of RM. Following this notion, the main reason behind the failure of traditional RM programs, is due to an ORG inability to successfully engage consumers through collaborative and co-operative marketing initiatives.

Seen from an applicative stance, it is necessary that ORG recognize the significance of the value that can potentially be derived from the provision of unique consumer experiences, when compared to traditional and undifferentiated marketing initiatives of mass (Prahalad & Ramaswamy, 2004). Moreover, Prahalad & Ramaswamy (2004), strongly emphasize that successful ORG allocate substantial investments towards the implementation of co-creation marketing initiatives, that are experience-centric by virtue. As illustrated, the new rationale within RM is focused on the implementation of co-creation and unique consumer experiences, which are to be considered as two focal elements of the concept of CE.

According to Brodie, Ilic, Juric and Hollebeek (2013), the focal point of the concept of CE revolves around interactive consumer experiences. Moreover, Vivek (2009) also deems consumer engagement to be an essential element of marketing systems, linked to the concept of his expanded domain of RM.

Accordingly, Prahalad and Ramaswamy (2004) assert this significance in their coined term of *dialog*, which is seen to have a great importance in the interplay between consumers and ORG, during the co-



creation of value, as they construe *dialog* to be comprised of profound engagement and interactivity; therefore, further highlighting the prerequisite of consumer engagement. Lastly, Huotari and Vargo (2019), assert that CE may be addressed as the focal element within the S-D logic due to the implementation of interactive and co-creative unique CX which may be seen as an action of engagement. In effect, the concept of CE arises from the expanded domain of RM, and thus becomes a focal element within marketing systems (Vivek, 2009).

Subsequently, the concept of engagement is to be dissected in reference to multiple alternate academic disciplines, in order to extensively explore the conceptualization of CE in its totality.

#### ***4.1.3 The Concept of Engagement***

The concept of engagement, as asserted previously, has been utilized throughout a multitude of fields within academia, whereby the conceptualization is dependent on its context (Hollebeek L. , 2011). Within the concept of engagement, and its application within ORG, William Kahn is considered to be a pioneer in the field, on the premise of him being the first to develop the concept in the field of organizational behavior in which, Kahn (1990) defined the concept of employee engagement in the working environment and drew inspiration from a theoretical stance within psychology. Subsequently, the concept of employee engagement has evolved over the past two decades, primarily from a sociological and psychological viewpoint; an evolution which has led to the adoption and formation of the cognitive, emotional and physical engagement dimensions, as suggested by (Saks, 2006; Crawford, Lepine, & Rich, 2010; Hollebeek L. D., 2011; Schaufeli, Salanova, González-romá , & Bakker , 2002).

In this context, Saks (2006) regards engagement as the summarization of physical, emotional and cognitive assets that an individual is prepared to dedicate to the accomplishment of one's work, conditional on the economic and socioemotional resources of the ORG.

Correspondingly, Crawford et al. (2010), construed the term employee engagement, and describe it as a mobilization of the physical, emotional and cognitive abilities that organizational employees devote to the execution of their work. Lastly, Schaufeli et al. (2002), express that engagement is to be understood as a work-specific condition, empowering a positive and fulfilling sensation that may be characterized by the elements of vigor, dedication and absorption.

In sum, it is acknowledged that the aforementioned cognitive (absorption), emotional (dedication) and physical (vigor) aspects of engagement, constitute the foundations of the conceptualization of CE within the realm of marketing, which have been addressed in the subsequent sections.

#### 4.1.4 Definitions of Customer Engagement

In line with the above section, the concept of engagement in the context of marketing, first appeared in recent years, as a direct consequence of the existing research within the realm of RM, but also, as a result of its applicability in an organizational context (Brodie, Hollebeek, Juric, & Ilic, 2011). As a result, the definitions pertaining to the concept of CE are great in number, and extensive in applicability. In this regard, Patterson, Yu and de Ruyter (2006), are acknowledged as being frontrunners in the efforts towards the establishment of a standardized conceptualization of CE, whereby they construe the concept of CE as the extent to which a customer's physical, cognitive and emotional attendance in the relationship with a service ORG. Correspondingly, Vivek, Beatty and Morgan (2012), drawing upon theoretical knowledge from the spheres of business management, sociology and psychology, define consumer engagement as "... the intensity of an individual's participation in and connection with an organization's offerings and/or organizational activities, which either the customer or the organization initiate." (Vivek, Beatty, & Morgan, 2012, p. 127).

Drawing upon the expanded domain of RM, the focal aim for ORG is not only to gain the attention of current customers, but also to attract future potential customers, when compared to the traditional view of marketing. On this notion, Patterson et al. (2006), portend that the concept of customer engagement should be termed consumer engagement, as the terminology is seen to have more significance and relevance.

In order to formulate a coherent and consolidated definition of CE, Brodie et al. (2011), carried out a comprehensive study, taking into consideration the prevailing conceptualizations and definitions of engagement that draw upon the sphere of organizational management and social sciences, as well as the marketing and services fields. Ultimately, this led to the formation of an extensive definition of CE based on five propositions, namely: "*Customer engagement (CE) is a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships. It occurs under a specific set of context-dependent conditions generating different CE levels; and exist as a dynamic, iterative process within service relationships that cocreate value. CE plays a central role in a nomological network governing service relationships in which other relational concepts (e.g., involvement, loyalty) are antecedents and/or consequences in iterative CE processes. It is a multidimensional concept subject to a context – and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioral dimensions.*" (Yoon & Sims, 2016, p. 335).

This definition is perceived to be one of the most thorough definitions of CE, on the basis of its inclusion of cognitive, emotional and behavioral dimensions, derived from organizational behavior, which inherently paves the way for application in a broad array of contexts (Brodie, et al., 2011).

In sum, on account of the contrasting definitions of CE in existing research, which is linked to the concept's infancy and as a result, sparse marketing research, there exists an absence of unanimity in relation to its amplitude and its applicability (Cheung, Lee, & Jin, 2011). Furthermore, the existing conceptualizations of engagement in organizational research embody cognitive, emotional and physical dimensions. However, contrastingly, research conducted within the realm of marketing denote two overarching categorizations, namely; unidimensional conceptualizations, converging almost solely on the behavioral features of CE (Doorn, et al., 2010; Bijmolt, et al., 2010), and multidimensional conceptualizations, which include an array of features such as behavioral, cognitive, emotional and physical (Hollebeek, 2011; Vivek, et al., 2012; Patterson, et al., 2006).

By virtue of having clarified the theoretical foundations of CE, the following sections will examine the establishment of customer brand engagement, and the developments leading towards an applicable conceptual CBE model.

#### **4.1.5 Customer Brand Engagement**

As depicted in the previous sections, the realm of CE revolves around multiple different conceptualizations of the concept. However, the focus of the current and prevailing research, is on the notion of CE as being a psychological narrative, and that of an ardent and mutual relationship between an ORG and a customer (France, Merrilees, & Miller, 2016). Henceforth, these multidimensional conceptualizations, as proposed by Brodie et al. (2011) introduce the concept of CBE. Moreover, the acclaim from multiple researchers towards these endeavors, initiated the widespread acknowledgement of CBE as a fundamental concept in the realm of modern marketing research and practice (France, et al., 2016).

Following these proceedings, Hollebeek, Glynn and Brodie (2014), defined CBE as *“a consumer's positively valence brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions.”* (Hollebeek, et al., 2014, p. 154).

This leading view of CBE consists of three dimensions, namely; cognitive processing (the cognitive dimension of CBE), affection (the emotional dimension of CBE) and activation (the behavioral dimension of CBE) (Carvalho & Fernandes, 2018). Cognitive processing is defined as *“a consumer's level of brand-related thought processing and elaboration in a particular consumer/brand interaction”* (Hollebeek, et al., 2014, p. 154). Secondly, affection, is defined as *“a consumer's degree of positive brand-related affect in a particular consumer/brand interaction”* (Hollebeek, et al., 2014, p. 154) and finally, activation is defined as *“a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction”* (Hollebeek, et al., 2014, p. 154). Correspondingly, Dwivedi (2015), subsequently developed a conceptualization of CBE, which is constructed on the basis of organizational psychology, in which he defines the concept as a *“consumers' positive, fulfilling, brand-*

*use- related state of mind that is characterized by vigor, dedication and absorption.*” (Dwivedi, 2015, p. 100).

In this definition, vigor is referred to as the large degree of energy and mental elasticity required from a customer during a brand-related interaction, and moreover, the eagerness of the customer to exert an effort in those situations of interaction (Dwivedi, 2015). Dedication can be dissected as the enthusiasm, incentive, acceptance and pride displayed from a customer towards a brand, whilst absorption correlates to the attentiveness of customers and their engagement in brand interplays (Dwivedi, 2015). In addition, this definition proposed by Dwivedi correlates to the behavioral, emotional and cognitive aspects of the aforementioned conceptualization of CBE, as outlined by Hollebeek et al. (2014). Evidently, the stated conceptualizations imply that CBE can be perceived as a multidimensional concept (Vivek, Beatty, Dalela, & Morgan, 2014).

Moreover, a number of researchers have devoted efforts to the development of a conceptual CBE model, whereby potential drivers of CBE can be explicitly tested (France, et al., 2016; Hollebeek, et al., 2014; Sashi, 2012). Firstly, in 2011, Hollebeek developed a conceptual model in which she examined whether involvement was positively related to CBE, that she had previously outlined as consisting of cognitive, emotional and behavioral constructs (Hollebeek L. D., 2011). The correlation of CBE to relationship quality, which within the model represents a higher-order construct of several dimensions; trust, commitment, and customer satisfaction, was also tested (Hollebeek L. D., 2011), (Appendices, 9.1.2). Lastly, she set forth to measure the extent to which the latter construct of relationship quality may positively correlate with customer loyalty (Hollebeek L. D., 2011).

In addition, Sashi (2012), proposed a model relating to CE, buyer-seller relationships and social media, by developing a cycle, interlinking *connection, interaction, satisfaction, retention, loyalty, advocacy* and *engagement* as stages (Appendices, 9.1.3), which has resulted in the emanation of four relationship groups, namely; *transactional customers, delighted customers, loyal customers* and *fans*.

In more recent years, Carvalho and Fernandes (2018), have constructed an extensive CBE model pertaining to the drivers and outcomes of CBE on virtual brand communities in the sphere of social media. In the act of such, the main aim of this comprehensive model was to analyze and merge key brand constructs relating to the process of CBE, which resulted in the model of; customer: *involvement, participation, interactivity, flow experiences, cumulative satisfaction, word of mouth referrals, trust* and *commitment*, with CBE as the central tenant (Carvalho & Fernandes, 2018), (Appendices, 9.1.4).

1. *Customer involvement* can be defined as the customer's interpersonal importance and curiosity towards a focal object (Carvalho & Fernandes, 2018), meaning that customers whom exhibit a high degree of involvement, are to a greater extent, expected to demonstrate engagement (Vivek, et al., 2012).
2. *Customer participation* is considered to be comprised of either consumption, contribution or creation, whereby customers can familiarize themselves with a brand, therefore adapting their expectations and better understanding its capabilities (Carvalho & Fernandes, 2018). In effect, participative customers are incapsulated within an interactive process that can lead to higher levels of CE (Vivek, et al., 2012); thus, this is viewed as an antecedent required in order to assert CBE (Hollebeek L. D., 2011).
3. *Customer interactivity* can be described as a psychological state of mind, that customers encounter during interactions (Wu, 2006), whereby faster, richer and more frequent interactions amongst customers and ORG may foster intensified brand engagement (Sashi, 2012).
4. *Customer flow experiences* measure the extent and intensity of the concentration and pleasure experienced by customers in online experiences (Novak, Hoffman, & Yung, 2000). As flow is a subconscious experience, customers who experience flow may to a higher degree be likely to discern the concurrent experience as fascinating, and as a result, engage with the brand (Novak, et al., 2000).
5. *Customer cumulative satisfaction* pertains to "all encounters of the customer-provider relationship" (Brunner, Stöcklin, & Opwis, 2008, p. 1097) and may therefore be elicited as a customer's cumulative psychological responses to an experience with a brand as a whole (Olsen & Johnson, 2003). Hereby, it is assumed that when customers are content with a brand's experiences and the brand itself, they may be perceived as being engaged (Carvalho & Fernandes, 2018).
6. *Customer commitment* deals with the spoken or unspoken assurance of the continuity of a relationship between an ORG and a customer (Carvalho & Fernandes, 2018). In line with this, brand commitment can be regarded as a psychological frame of mind whereby customers have a positive attitude and display enthusiasm towards cultivating a valued connection to a brand (Chaudhuri & Holbrook, 2001).
7. *Customer trust*, is identified as being one of the most important factors in the context of a relational exchange (Hunt & Lambe, 2000), as it can decrease uncertainty for customers in unfamiliar environments and can therefore influence a customer's decisions and behaviors; thus,

brands are inherently dependent on the trust of a customer to create CBE (Carvalho & Fernandes, 2018).

8. *Customer WOM referrals* can be referred to as any positive or negative sentiments communicated by current, future or former customers towards other individuals or institutions (Carvalho & Fernandes, 2018). For example, a recommendation is a core element of a strong relationship between customers and brands; and therefore, a heightened level of customer WOM can increase the CBE process (Carvalho & Fernandes, 2018).

Evidently, the aforementioned eight focal constructs of the process of CBE, constitute the development of an in-depth model, furthering efforts to analyze the CBE (Carvalho & Fernandes, 2018).

#### *4.1.6 The Theoretical Foundations of Technology Acceptance*

Gaining further knowledge on and insights into the driving factors of user adoption of information technology, has long been on the research agenda. As early as the 1970s, during a time when the importance of technology increased, and the acceptance of technology within ORG became troublesome, the area of technological system usage began to attract rising levels of research attention (Chuttur, 2009)

As such, numerous researchers have evaluated that *perceived usefulness* and *perceived ease of use* are key contributing factors that influence a user's behavior towards adopting IT (Davis, 1989). Furthermore, Schultz and Slevin were able to provide affirmation of the suggested correlation between a user's perceived usefulness and the user's behavior related to a system, as they discovered that "*perceived effect on job performance*", was most highly correlated with *self-predicted use of a decision model*" (Lu & Gustafson, 1994, p. 320). By duplicating the work of Schultz and Slevin (1994), Robey (1979), further confirmed the link between the perceived usefulness and the usage of a system. Furthermore, the role of attitudes on user behavior in relation to IS have also been subject to research.

In his study on management IT systems (MIS), Swanson (1982), noticed that attitudes pertaining to the usage of management IT, were associated with the actual usage of those systems. Despite the fact that these results are situation and context specific, it must be noted that greater levels of appreciation of management IT systems were reported among active users, compared to inactive users, indicating the influencing potential of usage on attitude and perceptions.

In his research on technology acceptance, Davis suggested that the motivation of a user towards adopting a system can be elucidated by taking three factors into account, namely; perceived usefulness, perceived ease of use and *attitude toward using* the system (Chuttur, 2009). In this regard, Davis (1985), defined perceived usefulness as "*the degree to which an individual believes that using a particular system would*

enhance his or her job performance“ (Davis, 1985, s. 26) and referred to perceived ease of use as “*the degree to which an individual believes that using a particular system would be free of physical and mental effort*” (Davis, 1985, s. 26). In connection, Davis (1985) described attitude toward using a system, as an individual’s perceived evaluative affect associated with usage of a particular system on the job. In line with this, Davis (1985), theorizes that the overall attitude of a user towards the use of a system, by virtue, is as a direct result of perceived usefulness. In addition, it is asserted that perceived ease of use of a system, has an explicit effect on its perceived usefulness (Chuttur, 2009).

Building upon Ajzen and Fishbein’s theory of reasoned action (Lee, Kozar, & Larsen, 2003) which is an expanded version of Fishbein’s *behavioral intention model* (Oliver & Bearden, 1985), Davis presented the first construct on TA (Lee, et al., 2003), which suggested that the intention relative to a certain behavior is a determinant for the actual behavior (Vallerand, Deshaies, Cuerrier, Pelletier, & Mongeau, 1992).

Additionally, the theory of reasoned action posits that the attitude of an individual toward a specific behavior, depends on the perceived consequences related to the behavior, as well as the expected outcome generated by it (Vallerand, et al., 1992). Also, *subjective norm*, derived from the theory of reasoned action, complements the above by taking social factors into consideration in regard to the acceptance of technology, as it concerns the people a user deems important, and those who are influential as to whether or not a user accepts or rejects a technology (Schepers & Wetzels, 2007).

#### **4.1.7 The Technology Acceptance Model**

In connection to the extensive amount of research covering the various components of consumer acceptance of systems, and hereby, the aspects that constitute a user’s attitudes and the determinants that ultimately decide whether a user accepts or rejects a system, Davis propositioned the *Technology Acceptance Model* in 1986 (Lee, et al., 2003), (Appendices, 9.1.5). On that basis, the purpose of the TAM was to present a generalized rationalization of the factors involved in the acceptance of computer systems, emphasizing the factors of perceived usefulness and perceived ease of use (Lee, et al., 2003). In comparison to Fishbein’s theory of reasoned action, it has been suggested that the construct of the TAM, is more effective towards understanding a user’s TA of IT systems (Lee, et al., 2003).

With respect to the model and the research on the relationship between the two factors of perceived usefulness and perceived ease of use, Davis (1989) emphasized that perceived usefulness was a stronger determinant of a user’s adoption of a technology system. This assumption is reinforced by results gained from a study on older Americans’ participation in e-commerce, which demonstrated a positive correlation between perceived usefulness and usage (McCloskey, 2006). By including the factor of trust,

the study further demonstrated that trust influenced both perceived usefulness and ease of use (McCloskey, 2006).

Furthermore, perceived ease of use and perceived usefulness, were examined in the context of mobile apps in the banking sector, which led to the notion that perceived ease of use was positively linked to a user's attitude towards the app, and that this, in turn, positively impacted its perceived usefulness (Muñoz-Leiva, Climent-Climent, & Liébana-Cabanillas, 2017). Contrary to the TAM, however, this research was not able to endorse the positive effect of perceived usefulness on intention to use (Muñoz-Leiva, et al., 2017).

In line with the aforementioned, Davis's research study on user acceptance of computer technology systems, has since been supported by Adams, Nelson and Todd (1992), who in their replication and extension of Davis' initial study, discovered that the analysis of TA with respect to the factors of perceived usefulness and perceived ease of use, possessed both reliability and validity across a variety of information systems, as well as contexts. However, alternative research studies have reported stronger consistency and support for perceived usefulness having an influence on the formation of attitudes, in comparison to the effect of perceived ease of use (Hu, Chau, Liu Sheng, & Tam, 1999).

On the contrary, the consistency of the findings of Adams et al. (1992) have been supported by Rogers (1983), who studied adoption rates of innovations, by including attributes such as *Relative advantage*, *Compatibility* and *Complexity*, among others. With regard to the Complexity attribute, which is similar to Davis' factor of perceived ease of use, Rogers extracted the notion that complexity is negatively correlated with the adoption of an innovation (Rogers, 1983), and is therefore comparable to Davis' suggestion, whereby a user may be discouraged from using the system, if the efforts required for usage are perceived to be greater than the benefits that can be derived from using it (Davis, 1989).

The research of Adams et al. (1992) however, denoted that demonstrating the influence of perceived usefulness and perceived ease of use regarding systems, usually fails to take into account whether the user interacts with the particular system voluntarily or involuntarily, as the factors of ease of use and perceived usefulness may have a diminished influence on the individual's behavior in cases of involuntary usage, such as in a work context whereby the user may be limited to a particular set of available systems.

Furthermore, the concept of *captive use* is brought into question, whereby the factors of perceived usefulness and ease of use are presumed to predict the behavior of a user with less accuracy in cases where the user is not presented with any alternative systems (Adams, et al., 1992). Similar to the concept of captive use, other research has pointed to a limitation of the TAM model, in that its approach fails to take into consideration certain conditions that may prevent a user from using a system, despite their desire to do so (Mathieson, Peacock, & Chin, 2001). In line with this, it has been highlighted that a user's behavior towards TA is affected by access to resources, such as; time, know-how and money, a



lack of which, can hinder the adoption and usage of a system (Mathieson, et al., 2001). That said, the TAM has been deemed the most effective and frequently applied theory in relation to explaining the acceptance of IS by users (Lee, et al., 2003).

#### **4.1.8 Evolution of The Technology Acceptance Model**

The acknowledged limitations and critique of Davis' TAM model encouraged the conduction of additional research on the area of user TA, which has resulted in the construct of extended versions of the initial TAM (Lee, et al., 2003).

In line with this, Venkatesh and Davis (2000), introduced TAM2, which concentrates on the determinants of perceived usefulness and usage intentions, and thus integrates additional theoretical constructs, such as social influence processes and cognitive instrumental processes, into the original TAM. Furthermore, perceived ease of use was included into the cognitive instrumental processes, due to the belief that the less effort a system requires, the more useful it can be (Appendices, 9.1.6). The incorporation of social influence processes led to the integration of subjective norm, due to the estimation that it influences perceived usefulness as well as the intention of a user to use a system (Schepers & Wetzels, 2007). Further additions included the consideration of *voluntariness*, as well as how the use of a system may alter a user's *image* (Venkatesh & Davis, 2000). Voluntariness concerns whether usage is mandatory or voluntary, while image refers to whether using a given system will enhance a user's status among its network, and thus image is also posited to be influenced by subjective norm (Venkatesh & Davis, 2000). In addition, perceived ease of use, *job relevance*, *output quality* and *result demonstrability* constitute the cognitive instrumental processes (Venkatesh & Bala, 2008). In connection, the TAM2 model takes into consideration how, as well as the extent to which, the social influence and cognitive instrumental processes influence perceived usefulness over time, as a result of increased *experience* with the given system (Venkatesh & Davis, 2000).

The TAM2 also differs from the original TAM, in that the construct of attitude was replaced by the variable of *Intention to Use*, a variable that refers to the strength of one's intention towards using an information system (Chuttur, 2009; Venkatesh & Davis, 2000).

Furthermore, this was found to be directly influenced by both perceived usefulness and perceived ease of use. Additionally, the variable of behavioral intention replaced the attitude construct, on the premise that a user can create a significant behavioral intention towards a system, without having formed an attitude (Chuttur, 2009). In comparison to the original TAM model, it is suggested that TAM2 has the ability to explain the drivers of usage intention with greater accuracy (Venkatesh & Davis, 2000).

#### **4.1.9 Theoretical Approach**

The prior sections encompass existing theoretical constructs that pertain to CBE and TAM2, with the goal of outlining an applicative stance for this thesis, towards analyzing how consumers can be engaged through technology. In this regard, the CBE model (Carvalho & Fernandes, 2018) will be applied in

Chapter 6 in order to attempt to unveil how the technology of AR facilitates CBE. This model has been selected, due to its conceptualization that draws upon multiple prominent researchers' efforts, as well as its significance in terms of encapsulating the key drivers and outcomes of CBE, and is therefore anticipated to be a suitable fit for the analysis in relation to AR. Moreover, its integrated view acknowledges, that the process of CBE does not follow a systematic sequential progression of phases, but identifies it as an interaction of accumulated engagement states, which other models have refrained from.

Subsequently, the findings gathered through the application of this CBE model (Carvalho & Fernandes, 2018) will be linked to the TAM2 model (Venkatesh & Davis, 2000). The TAM2 model has been chosen as a direct consequence of the original TAM model being perceived as oversimplified (McLean & Wilson, 2019). Additionally, the TAM2 model draws upon social influence and cognitive instrumental processes, which are deemed to be of great relevance in order to uncover how consumers can become engaged to brands through the technology of AR. In connection, the application of these theoretical constructs will be used to determine whether there exists any constraints to TA when ORG adopt AR into their marketing initiatives, and thereby to facilitate a foundation to determine whether ORG can engage consumers through technology.

## 4.2 Unique Experiences

### *4.2.1 The Theoretical Foundations of Customer Experience*

Throughout the last three decades the central concept of experience has increasingly been gaining attention from researchers within a broad range of academic disciplines, such as philosophy, psychology, tourism and organizational management (Hernández-Ortega & Franco, 2019).

Derived from these evolvments within the concept of experience, the concept of CX has arisen within the realm of marketing, as a focal concept that may facilitate ORG with the ability to create unique, entertaining and unforgettable experiences as a part of their marketing initiatives. On this notion, multiple prevailing researchers and organizational practitioners, in general, construe the concept of CX as a crucial process towards the development of holistic customer value, attaining differentiation and moreover, towards the creation of a SCA (Carbone & Haeckel, 1994; Pine & Gilmore, 1998; Shaw & Ivens, 2002; Schmitt, 2003; Gentile, et al., 2007).

In addition, as previously mentioned, market trajectories are witnessing a progressive transformation from the direct consumption of goods towards the consumption of goods, services and experiences (Pine & Gilmore, 1998). As a consequence, it requires ORG to deviate from traditional value propositions and place strong emphasis on the creation of a CX, that is capable of delivering a harmonious total experience (Carbone & Haeckel, 1994).

Accordingly, in efforts to further delineate the concept of CX, its emergence and development will be addressed within the next section.

#### *4.2.2 The Emergence and the Developments of Customer Experience*

Following the notion that interaction is a central element to the creation of an experience, Mehrabian and Russel (1974), acclaim that the responses of customers are driven through the interplay of an organizational or environmental stimulus and an organism, which they construe as a customer's emotional state (pleasure, arousal and dominance).

Correspondingly, Holbrook & Hirschman (1982), initially devoted their efforts towards the formation of an experiential aspect whereby they defined consumption experiences as being: *"a phenomenon directed towards the pursuit of fantasies, feelings, and fun"* (Holbrook & Hirschman, 1982, p. 132). Subsequent to these assertions, Woodward & Holbrook (2013), defined CXs as: *"All experiences are 'consumption experiences' and that these consumption experiences constitute most of what we do during our waking and even our non-waking lives."* (Woodward & Holbrook, 2013, p. 325).

Transcending from the aforementioned early studies, current and more recent research was first evoked as a result of research conducted by Pine and Gilmore, who pioneered the concept of CX, through their article "Welcome to the Experience Economy" (Pine & Gilmore, 1998), and subsequently, their book "The Experience Economy" (Pine & Gilmore, 1999). Herein, they contemplated on how the emanation of an experience economy may be perceived as the fourth level of economic advancement; along with the adherence to the agrarian economy, industrial economy and the service economy (Pine & Gilmore, 1999). Furthermore, their proposals were centered on the notion that experiences should be identified as an explicit offering, as products are different from services (Pine & Gilmore, 1999).

Similarly, Prahalad & Ramaswamy (2004), held similar beliefs in regard to the emerging experience economy, and suggested that the focal construct of competitive advantage concentrates on the personalization of co-created experiences, culminating in streams of value that are unique to each customer. Alternatively, Vargo & Lusch (2004), argued that there is a transformation from *value in exchange* towards *value in use*, and in extension, that the creation of value can intentionally be regarded as experiential by virtue (Vargo & Lusch, 2008). Similarly, in their subsequent research, the latter authors determined that customers are co-creators of value, which corresponds to the assertions of Prahalad & Ramaswamy (2004).

In sum, the stated developments pertaining to the concept of CX within the realm of marketing, facilitate the basis for the deployment of the conceptualization of CX, and its application within ORG. However, it has been identified that there is another aspect of the focal concept of CX; namely, service experience.

Hereby, the next section addresses the concept of CX, followed by a depiction of the construct of SX, in order to address the differences between these two concepts.

#### *4.2.3 The Concept of Customer Experience*

As previously mentioned, Holbrook & Hirschman (1982), construed CX as being comprised of the inclusion of cheerful recreational activities, sensual pleasures, enjoyment and responses based on emotionality. Proceeding contemplations led to Carbone & Haeckel (1994) defining CX as being the aggregated perceptions of customers conceived whilst obtaining knowledge on, acquiring, utilizing, cultivating and actualizing a product or a service. In broad terms, their definition entailed an in-depth view of the feeling of customers when interacting with an ORG product or service offerings, in connection to stimuli from the external environment.

Alternatively, Pine & Gilmore (1998), described that an experience develops through ORG intentionally utilizing services as the stage, and the goods as props, in efforts to engage customers; thus resulting in the development of an eventful experience. On this basis, experiences are thought of as intrinsically interpersonal responses that form in the mind of customers whom have become physically, emotionally, intellectually or spiritually engaged with the experience (Pine & Gilmore, 1998). Similarly, Berry & Carbone (2007) state that *“Connecting emotionally with customers requires an organization to create a cohesive, authentic and sensory-stimulating total customer experience that resonates, pleases, communicates effectively and differentiates the organization from the competition.”* (Berry & Carbone, 2007, p. 26).

Alternatively, other researchers perceive CX as a customer’s subjective reaction in a situation of interaction with an ORG; either a direct or indirect interaction (Meyer & Schwager, 2007). Correspondingly, Shaw (2007), outlines CX as being a reciprocal action between an ORG and a customer, comprised of the performance of the ORG, the arousing of senses and emotions evoked, measured in regard to the expectations of the customer across the entirety of contact points.

Furthermore, the concept of CX may be seen as an evolution of the concept of connection between customer and ORG. According to Gentile et al. (2007) the concept of CX should be understood as an array of interactions between a customer and a product, service or an ORG, that evoke a response.

Lastly, Woodward & Holbrook (2013), surmise that experiences in totality are consumption experiences, and moreover, that experiences are evaluated by customers with a negative or positive sentiment.

In order to facilitate a comparison between prevailing researchers’ interpretations of the CX concept, this section has outlined the concept of CX. The following section will encompass the concept of SX.

#### *4.2.4 The Concept of Service Experience*

The concept of SX has gained prominence and significance through its contemplation of the creation of value (Vargo & Lusch, 2004). Furthermore, the focal point of this concept, is that it places a strong emphasis on the consumption of services, in comparison to the consumption of goods.

Initial research has led to diversified approaches and contrasting perspectives, in regard to the dissection of its capabilities towards the creation of value and transmittal.

In this sense, Grove & Fisk (1992), elucidated the concept of SX through dimensions of services in a theatrical context; henceforth, actors, audience, setting and performance. Alternatively, Berry, Wall & Carbone (2006), contemplated that SX is always present when customers interact with ORG, and thus, it is not constrained to the context of the interaction between customer and ORG. Moreover, their research entailed the “role of clues” in the context of the development of SX, that can be perceived as functional, mechanic and human, and that inherently affect the rational and emotional conceptions of customers (Berry, et al., 2006).

Moreover, according to Sandström et al. (2008), services are to be identified as an individual customer’s subjective response within the sequence of consumption, and thereby, the SX functions as the element of value creation in service offerings. Additionally, Sandström et al. (2008) propose that value in use, may be determined as an assessment of the SX and how an individual customer perceives all functional and emotional outcomes of an experience.

Further researchers suggest that there exists a correlation between SX and the performance of ORG. Herein, Helkkula and Kelleher (2010), recognized a correlation between customer SX, and the value recognized by customers. In line with this, Klaus and Maklan (2012) identified the prominence of SX and its ability to influence the satisfactory levels of customers, their WOM intentions and their loyalty towards the ORG.

Lastly, from a contrasting stance, Jaakkola et al. (2015), observe the concept of SX as an occurrence of co-creation, in which they examined customers participation and involvement in the process of service creation. Their findings suggest that a SX may be defined through the dimensions of; dynamic, experiential and relational activities and interactions, henceforth accentuating the collective, collaborative and dynamically evolving disposition of SX (Jaakkola, et al., 2015).

By virtue of having delineated the concept of SX, the next section will address the distinction between the concepts of CX and SX.

#### *4.2.5 The Correlation of Customer Experience and Service Experience*

In regard to the concept of CX and SX, it is suggested that these concepts are centered within the S-D logic (Service-dominant) with a strong emphasis on value in use, implying that the creation of value can intentionally be regarded as experiential by virtue (Vargo & Lusch, 2004; Vargo & Lusch, 2008).

Furthermore, as elaborated upon previously, although there are differences between CX and SX, with the latter placing a stronger emphasis on services, the two concepts share many common attributes and trajectories. In greater detail, their similarities are encompassed through their characteristics of being comprised by a holistic methodology of evaluation and an integrated array of activities, which are connected to the performative nature of an ORG, which affects variables such as; perceived value, customer satisfactory levels, WOM communications and loyalty. Furthermore, the two concepts entail functional, rational, affective and emotional perceptions, that may be deemed subjective, along with a viewpoint between customers, ORG or individuals which is formed upon co-creation.

In opposition, the key difference between the concept of CX and SX is in relation to the focal subject involved in the experience. In regard to SX, it appertains to any actor who is subjected to the experiences of the service. However, in relation to CX, the sole beneficiary is the customer who is considered to be the actor of the experience (Berry, et al., 2006; Sandström, et al., 2008).

Furthermore, SX addresses the inclusion of service provider representatives and individuals linked to the social experience network, as these also experience the ongoing service delivery, and is outlined by Helkkula (2011), as an omni-stakeholder network. Alternatively, CX is generally characterized as being subjective in its nature, as it targets a customer's interpersonal interaction, assessment, understanding and responses regarding holistic interactions, as a result of being subdued to an experience (Meyer & Schwager, 2007).

After having clarified the main commonalities and differences between the concepts of CX and SX, the proceeding section will outline the realm of CX management.

#### *4.2.6 Customer Experience Management*

The aforementioned research has approached the subject of CX, in an effort to identify and explain the crucial and preeminent steps concerning the management of the process of CX (Berry, et al., 2006). The evolvement of such has formed the concept of CX management, which is comprised of tools, frameworks and methodologies empowering the management of CX in a broad array of industries (Verhoef, et al., 2009). In the context of such, Carbone & Haeckel (1994), proposed the utilization of frameworks, models and methodologies within ORG to facilitate the basis of engineering comprehensive CX, stressing that the focal determinant within the approach is to view the totality of the CX as the core customer value proposition.

Preceding from the initial assertion, Carbone (2004), proposed the concept of “clued-in” management which was to be seen as an extension of the experience engineering concept, and entailed managing the signals (clues) of CX that may lead to a SCA.

As elaborated upon previously, Pine & Gilmore (1999), view CX as a theatrical event, and advise ORG to consider four types of theaters, hence approaches, to utilize when staging and producing experiences, namely; *Platform theater*, *Street theater*, *Matching theater* and *Improvisation theater*. Correspondingly, Groove & Fisk (1992), also emphasized the same viewpoint on the creation of CX, as theatrical performances.

On the other hand, Schmitt (1999), after having construed the concept of experiential marketing, developed a framework consisting of five elements, namely; sense, feel, think, act and relate.

The aim of this approach was to lead ORG towards engaging their customers through experiences. Consecutive to his initial approach, Schmitt (2003) then constructed the CX management framework, also known as the *CEM* framework which can be understood as a project-based framework for the management of experiences.

The CEM framework is comprised of five steps, hereunder an analysis step, a strategy step and three implementation steps, accordingly; *1. Analyzing the experiential world of the customer*, *2. Building the experiential platform*, *3. Designing the brand experience*, *4. Structuring the customer interface*, *5. Engaging in continuous innovation* (Schmitt, 2003).

In sum, the concept of CX management is to be seen as the methodological recognition, arranging and amalgamation of a correctly implemented set of clues (senses) across all stages of experience creation, responding to these through the development of interactive processes enabling experience creation, whilst being able to measure outcomes through suitable performance measures.

Having addressed opposing constructs and approaches devoted to the concept, an additional conceptual model of CX creation suggested by Gentile et al. (2007), will be outlined in the preceding section.

#### ***4.2.7 The Conceptual General Framework of Customer Experience***

Successive to having identified that the majority of the predominant research addressing the concept of CX is from a theoretical aspect, Gentile et al. (2007), have devoted research towards the concept on the basis of how the correct environment and context for the CX may be created, in order to foster value creation for customers and the ORG in question (Havir, 2017).

Drawing upon prevailing research, Gentile et al. (2007), affirm the transformation from the traditional product or service marketing approach towards taking an integrated and captivating experiential approach to marketing. Hereby, devoting efforts towards creating deeply engaging and unique experiences that facilitate customers becoming fully immersed in the ORG. This, in effect, may lead



towards a stage of co-creation that empowers an ORG to approach customers through a new medium, henceforth enabling customers to forge and attain their own experience (Schmitt, 1999; Shaw & Ivens, 2002; Prahalad & Ramaswamy, 2004).

On the basis of such, the concept of CX is construed as being a dynamic evolution of the concept of relationship between an ORG and a customer. Moreover, Gentile et al. (2007), determine the concept of CX to be a multidimensional concept consisting of six dimensions, namely; *Sensorial Component*, *Emotional Component*, *Cognitive Component*, *Pragmatic Component*, *Lifestyle Component* and *Relational Component* (Gentile, et al., 2007, p. 398).

The first dimension in regard to the sensorial component of CX, addresses the incentive of senses with the main ambition of fostering great sensorial experiences through taste, hearing, sight, touch as well as aesthetical pleasures such satisfaction and excitement (Gentile, et al., 2007).

In addition, the second dimension pertains to the emotional component which regards the affective system of customers by way of establishing emotions, moods and feelings which may cultivate an experience characterized by emotionality, and thereby encourage an affective relationship with the ORG (Gentile, et al., 2007).

Furthermore, the third dimension constitutes the cognitive component, and considers a customer's cognitive process, which may advance their engagement towards utilizing their ingenuity, also in circumstances of solving problems. In greater detail, ORG may be able to drive customers towards an innovation of the offering (Gentile, et al., 2007).

Moreover, the fourth dimension entails the pragmatic component, and addresses the situation of customers executing something physically, hereby the pragmatic component consists of the concept of usability, but is concurrently not constrained by it (Gentile, et al., 2007).

The fifth dimension is comprised of the lifestyle component, which is derived from the confirmation of the system of values linked to the thoughts and opinion of a customer, which often takes place through the enactment of certain behaviors or lifestyles (Gentile, et al., 2007). On the basis of the aforementioned, an ORG's offering may contribute such a CX, as a result of its consumption becoming a means of adherence towards embodied values projected by the ORG that the customer entrusts.

Lastly, the sixth dimension is comprised of the relational component, which considers the customer, as well as individuals within and outside the customer's own boundaries, and one's ideal self. In effect, an



ORG offering, may be able to influence this particular component through the encouragement of consumption with others (Gentile, et al., 2007).

In line with the six aforementioned dimensions of CX and the previously addressed theories on value creation and co-creation, Gentile et al. (2007) have proposed a conceptual framework, *The General Framework of Customer Experience* (Appendices, 9.1.7). Herein, the concepts of CX and exchanged value are capsulized through efforts to address the reciprocal relations and interconnectedness between an ORG and the customer, as a consequence of the concept of CX being conformed through interactions between ORG and customers, and moreover, due to value creation that is fostered through these interactions (Gentile, et al., 2007).

#### **4.2.8 Theoretical Approach**

The previous sections have outlined the theoretical structure in relation to the concept of CX, leading to the conceptualization of the general framework, in an effort to delineate an applicative stance for the concept of CX. In effect, the suggested general framework of CX as outlined by Gentile, Spiller, & Noci (2007), will be applied in Chapter 6 of this thesis, in order to uncover how the technology of AR may facilitate the creation of unique experiences, which particular dimensions it affects, and moreover, its influence on the process of value creation. By reason, the specific latter framework has been utilized due to its novelty and its construct that builds upon prominent existing research. Moreover, the development of the framework possesses the view on CX as a multidimensional concept, which other prevailing conceptual models have refrained from; thus, leveraging a more nuanced and in-depth depiction of the capabilities of AR.

### **4.3 Consumer Decision-Making**

#### **4.3.1 The Theoretical Foundations of Consumer Decision-Making**

In spite of its prevalence across a broad array of academic disciplines, the concept of consumer behavior has also been researched extensively within the realm of marketing for a longer period of time (Kernan, 1995), as its influence on marketing has been acclaimed for having an immense importance for ORG competitive nature (Wright, 2006). As a result of such, the concept pertains to the process a consumer endures whilst undergoing a situation of purchase, which is comprised of the influences that form the decision in regard to the purchase (Belch & Belch, 2009). Moreover, it relates to the examination of individuals, ORG, groups and the interconnected processes these use, to select, assure, utilize and place objects, products, experiences, services or beliefs, in order to appease their needs, as well as the influence that these inherent processes may have on society and the consumer (Dholakia & Dholakia, 1985).

In line with this, initial research devoted to consumer behavior in the sphere of marketing, contemplated behavioral decisioning, which entailed the notion of all individuals being rational consumers when undergoing a situation of consumption and purchase. However, the dynamic evolvments within the field, have acknowledged that consumers often produce irrational choices in relation to situations of consumption and purchase, henceforth leading towards the concept of CDM (Stankevich, 2017). Additionally, the common ground within studies devoted to the concept, accentuates the importance of ORG and their marketeers to become fully informed on the rationality of CDM, in order to understand how these effects exhibit themselves within the market (Stankevich, 2017).

The above-mentioned developments within the concept of CDM have through time transpired into two overall categories of CDM conceptualizations, which correspondingly will be addressed within the next section.

#### *4.3.2 Categories of Consumer Decision-Making*

Through the preceding decades, a multitude of researchers have arrived at conceptualizations of the concept of CDM, which concurrently, have transpired into two overarching categories, namely; CDM in the context of strategies and CDM in relation to the process a consumer endures when carrying out decision-making during the act of purchase. In relation to the first category of strategies, researchers such as Sprotles and Kendall (1986) and Rezaei (2014), have based their approach on the underlying cognitive mechanisms that consumers utilize when undergoing a state of decision-making. Moreover, the second category, as researched by Nicosia (1966), Zeithaml (1988) and Haugtvedt, Machleit and Yalch (2005), is comprised of the processes in regard to the decisions that are produced during the act of consumption and purchase.

When comparing the two aforementioned categories, the construct of strategies differs in relation to the extent of attentive information that is examined against each alternative, and furthermore, how the basis of knowledge is dissected and processed; thus, in which way the corresponding alternatives are assessed in relation to each other (Bettmann, Luce, & Payne, 1998).

Moreover, in broad terms the CDMP is, according to the vast majority of research, believed to be encapsulated of five stages, namely; *problem recognition*, *information search*, *evaluation of alternatives*, *purchase decision* and *post-purchase behavior* (Kotler, et al., 2019). Firstly, in the stage of problem recognition, a consumer recognizes a need or problem triggered through internal or external stimuli, which initiates the second stage of information search, wherein a consumer will seek information pertaining to the need or problem. Subsequently, the consumer may evaluate the alternatives recognized within the first stage, either leading towards the act of purchase/consumption, or not. Lastly, the consumer enters the stage of post-purchase behavior where an ongoing evaluation of the entire

experience will commence, in relation to whether or not the purchase/consumption has fulfilled expectations (Kotler, et al., 2019) . In extension, when comparing CDM strategies to the CDM process, the subsequent category does not encompass individual traits, such as, culture, gender, or personality, and as a result, it is more appropriate for research placing emphasis on the general consumer (Mishra, 2014).

Having outlined the overarching categories of conceptualizations within concept of CDM, the next section will address the cognitive and emotional nature of consumers, in an effort to delineate the most prominent CDMP models.

#### *4.3.3 The Psychological Constraints of Consumers*

As addressed in section 4.3.1, initial research performed on the concept of CDM was founded on the belief that consumers always act on a rational basis, as suggested by neo-classical economics through the rational choice theory (Browning, Halcli, & Webster, 2000). As a result of such, initial CDMP models were founded in rational choice theory, which suggests that consumers may generally be observed as rational thinking individuals, whom always calculate pros and cons during their process of decision-making, before acting upon it (Bettmann, et al., 1998; Stankevich, 2017; Browning, et al., 2000). Yet, in response towards these initial movements, the formation of the perspective of information processing arose as a direct consequence of researchers questioning the validity of the rational choice theory and the conceptual models based on its construct (Haugtvedt, et al., 2005).

In detail, the perspective of information processing is comprised of the view that consumers per default inhabit explicit limitations towards the processing of information, and are therefore unable to act on the basis of rationality in situations of consumption or purchase and decision-making (Bettmann, et al., 1998). Moreover, the asserted limitations that consumer endure whilst performing decision-making, is commonly termed under the concept of bounded rationality, which evidently has resulted in difficulties in the prevailing research, in regard to coming to terms with the comprehension of the CDMP, as initially delineated by Simon in 1956 (Simon, 1956; Haugtvedt, et al., 2005).

Furthermore, the studies performed by Malhotra (1982) on information loads connected to consumer behavior, confirms that an overload of information projected onto consumers, restricts their ability to make rational decisions within the CDMP. In line with this, Bettmann et al. (1998), emphasize the importance of a consumer being subject to appropriate amounts of cognitive stimuli, throughout the process of search and evaluation, in order to arrive at a decision that fulfills their needs and desires.

Furthermore, in his previous research, Simon (1956), acclaims that consumers most often will put their desired level of satisfaction during situations of consumption at stake; thus, leading consumers to select the initial offering that meets all their needs. Proceeding from this viewpoint, other researchers are of the belief that consumers utilize choice heuristics in the situational context of consumption and purchase,

henceforth opting for offerings that are known to them, and as a result, reduce cognitive efforts (Haugtvedt, et al., 2005; Bettmann, et al., 1998).

In connection to the thought of consumers being irrational, other researchers state that consumers are driven by emotional factors, in addition to the aforementioned aspect of cognition (Nicosia, 1966; Haugtvedt, et al., 2005). In line with this, a multitude of researchers have contemplated on the thought of both the cognitive and emotional aspect being interconnected, in terms of how consumers perceive offerings, and moreover, that these aspects may foster the overall intention of consumption or purchase. However, others have addressed the capabilities of these aspects towards driving the information search stage and the evaluation of alternatives (Nicosia, 1966; Shiv & Fedorikhin, 1999; Mohan Raj & Roy, 2015).

In addition, according to Mohan Raj & Roy (2015), the cognitive element within the CDMP may be seen as comparable to the neo-classical economic theories and the contemplations within the rational choice theory, as consumers inherently employ disciplined and visionary actions during the processing of information, and moreover, exhibit behavioral traits that necessitate the placement of cognitive efforts towards the process of decision-making. Moreover, this notion emphasizes that this aspect is in close relation to the theory of rational choice theory (Haugtvedt, et al., 2005).

In opposition, Shiv & Fedorikhin (1999), furthermore assert, that in effect a CDMP may also inherently be comprised of lesser intentionality, and moreover, that it is an autonomous process of cognition, which the latter researchers term as the affect, hence emphasizing that affect involves lesser cognitive efforts and is triggered through a consumer's emotionality. Additionally, other prevailing researchers suggest that it is evident that consumers utilize their emotionality, and hereby replace external stimuli in situations of decision-making (Kotler, et al., 2019).

In opposition towards this assertion, Mohan Raj & Roy (2015), assert that consumers empowered through emotionality most often exhibit a stronger sense of information search behavior.

Lastly, other researchers have opted for the inclusion of, not only cognitive and emotional factors within the CDMP, but also social factors and the contextual setting, which is addressed by Fishbein and Ajzen within the construct of theory of reasoned action (Sheppard, Hartwick, & Warshaw, 1988).

In, sum having delineated the underlying cognitive and emotional factors in relation to the CDMP, the next section will address the conceptualizing of the CDMP.

#### 4.3.4 Conceptualizing The Consumer Decision-Making Process

One of the most cited CDMP models within the prevailing research of CDM is the Engel-Kollat-Blackwell model, which is also often referred to as the EKB model (Blackwell, et al., 2006). The model, which was first introduced in 1968, examines and unfolds the underlying elements of and processes that occur throughout the CDMP, in which it incorporates internal and external influences that influence how consumers think, evaluate and act (Blackwell, et al., 2006).

The model is construed of five steps, consisting of; *Problem Recognition*, *Information Search*, *Evaluation of Alternatives*, *Purchase Decision* and *Post Purchase Evaluation* (Blackwell, et al., 2006), (Appendices, 9.1.8). The first stage of *problem recognition* pertains to the disparity between the prevailing situational context and the desired situational outcome, which is mainly comprised of cognitive and subjective processes, as a result of the consumer knowing what is present and where he wishes to be (Blackwell, et al., 2006).

Subsequently, after having recognized and addressed the problem, according to the EKB model, a consumer will be motivated towards acting, which then leads to the second stage of *information search*. This stage encapsulates internal and external stimuli, which paves the way towards the third stage of *evaluation of alternatives*, whereby the information is processed and evaluated in relation to acting upon it (Blackwell, et al., 2006). The fourth stage of *purchase decision* is where a consumer will either act upon his prior considerations or not, which also entails a high level of cognitive effort, as well as subjectivity (Blackwell, et al., 2006). The last stage of the EKB is comprised of the *post-purchase evaluation*, which considers a consumer's ability to compare prior expectations of the purchase, in relation to the perception of the actual purchase, once acquired. Moreover, this stage entails a consumer's subjectivity towards the purchase, on the basis of cognitive and rational processes (Blackwell, et al., 2006).

Since its formation the EKB model has been subject to vast amounts of revisions and extensions within other contexts in order to test its applicability within the initial context, such as performed by Bruner & Pomazal (1988), Darley et al. (2010), Grewal, Roggeveen & Runyan (2013) and Howard & Sheth (1969) (Ashman, Solomon, & Wolny, 2015). However, the model has also faced critique on the totality of its construct, and moreover, what it suggests to denote, whereby Olshavsky and Granbois (1979) state that a vast amount of purchases undertaken by consumers do not include any element of decision-making; thus, rendering the model irrelevant. Likewise, Jacoby (2008), critiqued the EKB model on being a one-sided organizational model that lacks a broader context which includes sociocultural factors that impact the consumer behavior. However, in spite of the developments in regard to reviews and critique, the EKB model is still acclaimed as one of the most prominent CDMP models.

After having portrayed two prominent conceptual CDMP models, the final section aims to address the CDMP in the context of the modern dynamic business landscape.

#### *4.3.5 The Dynamic Business Landscapes and Consumer Decision-Making*

As a result of technological advancements in the business landscape surrounding ORG, and a stronger emphasis on the utilization of technology in ORG, consumers are empowered with easier access to information; thus, affecting the CDMP as a whole (Patano & Naccarato, 2010). Moreover, as delineated by Simon (1956) the concept of bounded rationality revolves around the notion that consumers possess limited knowledge and have limited accessibility to information, and lastly, that behaviors in situations of consumption entail a search process of trial and error. However, researchers suggest that these assertions are no longer applicable in the modern and dynamic business landscape (Haugtvedt, et al., 2005), as the modern consumer has transcended into a state of unbounded rationality, which, in turn, builds a stronger foundation for decision-making.

On the basis of this notion, Hudson and Thal (2013), posit that the balance of power in the relationship between a consumer and the ORG has shifted, and that consumers are no longer solely reliant on an ORG communications outward; thus, strengthening a consumer's capacity within the CDMP.

In line with this, other research suggests that the collateral effects that have arisen through technology, such as the internet and social media, may be identified as a commonplace to share views and opinions on the offerings of ORG, whereby WOM is seen as a more valid source of information to consumers, than when compared to traditional outward communication initiatives from ORG (Wang & Yu, 2017). Therefore, this results in an implicit alteration of the CDMP and a shift away from the traditional five stages, and suggests a movement towards a dynamic circular customer journey constructed upon three stages, namely; pre-purchase, purchase and post-purchase (Hudson & Thal, 2013). Furthermore, it is also suggested that on the basis of consumers nowadays being characterized by high levels of knowledge and accessibility to information, that consumers will no longer passively participate in a relationship with an ORG, and will therefore perform an active role in opposition to the traditional view of the CDMP (Treadgold & Reynolds, 2016).

#### *4.3.6 Theoretical Approach*

The prevailing sections in this chapter have addressed the theoretical foundations of CDM, its categories, the psychological constraints of consumers, the conceptual CDMP models and the dynamic business landscape in relation to the concept of CDMP, in an effort to delineate an applicative stance in regard to the CDMP. As a result, the suggested EKB model, as adopted from Blackwell et al. (2006) will be applied within Chapter 6 of this thesis, in order to uncover how AR changes particular parts of the CDMP, as well as the entirety of the process. The specific EKB model has been selected due to its prominence amongst a vast magnitude of researchers and practitioners, its broad scope of context and the low levels of critique that it has received. Lastly, the model's five-steps enable the researchers to closely pin-point which exact aspect of AR influences the CDMP and where these influences occur, which is regarded as highly valuable when compared to less precise models, with fewer steps.

## CHAPTER 5: CASE ORGANIZATIONS

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*This chapter presents the three selected case organizations, whereby it will outline a company description of each organization and address the general applicability of AR within the marketing initiatives of the organizations, followed by how each of the organizations are currently utilizing AR in their marketing initiatives.*

### 5.1 The Case Organizations

With the aim of gaining insights into how the technology of AR can be utilized by different brands and ORG in their pursuit of achieving customer engagement, creating unique experiences, positively impacting the CDMP, and ultimately, potentially generating a SCA; three case ORG have been chosen. On the basis of their application of AR for the enhancement of their marketing initiatives with the aim of achieving a SCA, the case ORG will provide a more valid and reliable basis for the authoring of the analysis and discussion of this thesis, as seen within Chapters 6 & 7.

København Zoo, Tivoli and Bang & Olufsen constitute the three chosen case ORG whom have adopted the technology of AR for different purposes, however, all in an attempt to enhance their offerings and enrich their marketing initiatives. By virtue of their operations, the latter three ORG differ significantly. ZOO and TI, are ORG whom are in the business of creating SX (Jaakola, et al., 2015), whereby their primary offerings consist of animal attractions (Zoo, 2020) and amusements (Tivoli A/S, 2020), respectively.

ZOO's offerings are centered around its comprehensive range of animal attractions, constituted by a variety of different species originating from all over the world. Among its variety of offerings, are a number of food and beverage facilities that serve to accommodate the needs of the consumers and to enhance their overall experience. Moreover, the consumers of ZOO encompass a broad range of target audiences spanning from the young to the elderly, however, many of its SX offerings are tailored towards the entertainment of children and their families, whom are its core consumer segments.

In addition to ZOO, TI, throughout its existence, has provided SX offerings comprised of entertainment, engagement and remarkable experiences for both its Danish and tourist visitors. Its highly extensive portfolio of offerings is targeted at a broad range of consumers, and consists of six visitor segments, hence; families with younger children, families with older children, the cultural, TI-enjoyers, the friends and business (Tivoli A/S, 2020).

However, the combination of TI's entertaining nature comprised of fairytale themes, rollercoasters, playful amusements and many youth-oriented offerings, along with its guest-segment statistics, the majority of its visitors are consist of youthful consumers (Tivoli A/S, 2020).

In addition to its unique SX offerings, its long history, dating back to 1843, positions it as a brand with a strong cultural heritage, and ultimately, one of Denmark's most recognizable ORG. Thus, the consumer offerings of ZOO and TI are not tangible offerings, but SX, whereby the experience is the



nucleus. In that regard, the value propositions of the two ORG revolve around experiential and hedonic benefits, rather than those that are functional and utilitarian (Javornik, 2014).

On the contrary, B&O is a luxury consumer electronics company that manufactures and designs a wide array of products, which includes tangible offerings such as audio products and televisions, along with other electronics accessories (Bang & Olufsen, 2020), that present the consumer with tangible offerings that primarily provide utilitarian value (Javornik, 2014). Furthermore, the portfolio of luxury products narrows the scope of its target audience towards affluent consumers whom are willing to pay a premium price for its high-quality offerings, whom appreciate as well as value, creative experiences and whom B&O define as “*creative curators*” (Bang & Olufsen A/S, 2018, p. 9).

Contrary to the two other ORG, the operating presence of B&O within the CGO indicates that products are central to the consumer experience (Atwal & Alistair, 2017). Given their contrasting nature, the interaction between the consumer and the three brands in question, varies significantly, which, in turn, delivers considerably different opportunities for the brands to exploit the technology of AR in order to leverage their marketing initiatives directed at the consumer.

## 5.2 The Case Organization’s Adoption of Augmented Reality

In the first quarter of 2016, ZOO commenced the implementation of AR technology within its marketing initiatives, powered by the Layar AR app (Layar, 2020). Moreover, the Layar app facilitated the enhancement of the visitor experience pertaining to the zoo’s rhinoceros enclosure, through enabling multiple views and informatory items, in relation to the rhinoceros in the enclosure.

Furthermore, TI initiated the implementation of AR within their marketing initiatives, in Q2, 2016. Prior to the launch of their new rollercoaster, “Fatamorgana”, TI had created printed ads with an embedded link, in which interested readers of the magazines *Alt for damerne* (ALT, 2020), *Femina* (Femina, 2020) and the local Danish newspaper *Jyllands-Posten* (Jyllands-Posten, 2020) could scan a picture of the new rollercoaster in order to “*bring the rollercoaster alive*” (Tivoli, 2016). Moreover, by scanning the picture of the rollercoaster in the TI mobile app, interested individuals were able to view the rollercoaster ascend, with all of its moving parts, and therefore, obtain an impression of how the new rollercoaster would be in real life, through the use of AR.

Subsequent to this initiative, TI launched a mobile AR zombie game in the TI mobile app in Q3, 2016, that enabled TI visitors to encounter virtual zombies amidst the TI Garden’s environment, and to take a photograph with them. The deployment of AR distinguished this game from others, and the initiative was acknowledged as being among the first of its kind in Denmark (Tivoli A/S, 2016). In addition, in the three weeks of the activation of this initiative, during Halloween of 2016, TI experienced 22.000



new app installs, 30.974 pictures taken within the app and 17.432 shares of these pictures, whilst experiencing a rise of their NPS from 64 to 74 (Appendices, 9.1.9).

In October 2018, B&O embarked on an AR initiative of their own, as the brand introduced its B&O AR Experience app (Larsen, 2018), with efforts to grant customers a breadth of opportunities to visualize how the brand's offerings would look when integrated into their home environment. The app allows customers to select, place and modify the color of the particular product, whilst enabling customers to save and share the images of the customized products or inquire the opinions of others (Bang & Olufsen, 2020). Moreover, the application enables individuals to find the nearest B&O store or retailer through the app, in which they grant consumers the possibility of enquiring about particular products in relation to the saved objects in the application.

In extension, the below depicted figure 9 entails a general overview of the above-mentioned three selected case ORG in reference to their size, profitability and efforts devoted towards AR, at a glance.

ORGANIZATION:	KØBENHAVN ZOO	TIVOLI	BANG & OLUFSEN
FOUNDED IN:	1859	1843	1925
INDUSTRY:	Service Experiences (Zoo)	Service Experiences (Amusement Park)	Consumer Goods (Luxury Consumer Electronics)
NUMBER OF EMPLOYEES:	180	2000	983
MARKET SIZE:	Denmark	Denmark	+70 Countries
REVENUE FY18:	DKK 354.5 m	DKK 1.519 m	Dkk 2.838 m
NET PROFIT FY18:	DKK 151.6 m	DKK 94.2 m	Dkk 19 m
AR APPLICATION:	Layar AR App	Tivoli App	B&O AR Experience App
AR OFFERING INITIATED:	Q1, 2016	Q2, 2016	Q4, 2018
AR ENABLED OFFERING:	Enables visitors to attain virtual information about the rhinoceros with digital objects.	Allows guest to see their new rollercoaster virtually in their own environment. Allows guests to shoot virtual zombies.	Allows users to place and modify virtual products inside their homes with built-in shareability features.

Figure 9, An Organizational Overview, Own Creation, 2020

## CHAPTER 6: ANALYSES

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In this chapter, the researchers will apply the collected qualitative data obtained through the in-depth interviews with the selected case ORG of København Zoo, Tivoli and B&O, in combination with the data gathered through the quantitative online consumer surveys, in line with the theoretical framework that this thesis is formed upon.

Moreover, as elaborated upon in the previous chapters, this thesis aims to further the comprehension of AR within the marketing initiatives of ORG and the keys to its success, as well as understanding whether or not it can enable a SCA. Therefore, in order to effectively carry out the analysis, the researchers will return to the main research question:

***“How can organizations achieve a sustainable competitive advantage through applying the technology of Augmented Reality to their marketing initiatives?”***

Hereby, this chapter will address the identified three focal areas of AR, that ORG may be able to benefit from when applying them to their marketing initiatives, namely; its ability to create engagement, foster unique experiences and influence the CDMP, which will be analyzed on the basis of the following three sections:

- **Engaging the Consumer Through Technology:** *In this section, the researchers will analyze how consumers become engaged through AR, and moreover, how willing they are to utilize a technology such as AR.*
- **Unique Experiences:** *This section examines which aspects of AR foster unique experiences through the reciprocal relations that form between consumers and organizations.*
- **Consumer Decision-Making:** *In this section, the analysis will explore how AR influences different parts of the CDMP, and identify resulting outcomes for organizations.*

## 6.1 Engaging the Consumer Through Technology

As mentioned above, this part of the analysis seeks to address how consumers become engaged through AR, and moreover, to identify which aspects of the technology are inherent to consumers accepting and utilizing it. By drawing upon the works of Carvalho & Fernandes (2018), through the application of their conceptual CBE model, and furthermore, through the implementation of the TAM2 model (Venkatesh & Davis, 2000), the researchers strive to answer their first sub-research question: *In which way(s) does Augmented Reality facilitate engagement between an organization and its consumers?*

### 6.1.1 The Customer Brand Engagement Model

*The following drivers of CBE will be outlined accordingly: Customer Involvement, Customer Participation, Customer Interactivity and Customer Flow Experience. Subsequently, Customer Cumulative Satisfaction, Customer Commitment, Customer Trust and Customer WOM constituting the potential outcomes of CBE (Carvalho & Fernandes, 2018).*

#### Customer Involvement

According to the CBE model, customer involvement can increase the probability of a customer demonstrating engagement towards an object (Carvalho & Fernandes, 2018). In this regard, it is proposed that AR presents novel and innovative measures for ORG to reach and interact with consumers (Yaoyuneyong, et al., 2016). In line with this, the sparse number of guests within ZOO who interacted with the AR feature amidst the rhinoceros enclosure reported being able to “*learn more*”, “*see more about the rhinoceros*” and “*get additional information*” that was “*more interesting*”, in comparison to the zoo’s traditional boards or signs used to illustrate information about animals (Appendices, 9.4.1, minutes 5-10).

When looking further into the total distribution of respondents, it is apparent that there is a positive trend in female respondents deeming the technology as unique, when respondents were asked whether they thought that AR is unique. Hereby, out of the 59 respondents whom considered AR to be unique, 34 were female, whereas only 25 were male. Conversely, in regard to the respondents whom implied that AR was not unique, 23 were male and only 14 were female (Appendices, 9.6.22).

Furthermore, Scholz and Smith (2016) posit that the characteristics of AR evoke improved opportunities for ORG to facilitate engagement with customers (Scholz & Smith, 2016). In support of this notion concerning AR’s ability to generate involvement and engagement, TI asserted that AR can “*involve and engage people more*” in organizational offerings and encourage consumers to “*spend more time with it*” (Appendices, 9.4.2, minutes 10-15). In this regard, the findings from the online survey indicate, that when respondents were asked what AR could be utilized for, 86 out of the 102 respondents indicated that it can be used to provide entertainment, while 60 out of the 102 respondents purported that AR can grant a better idea of how it would be to try out an experience (Appendices, 9.6.8), signifying a correlation between the statements of TI.

Moreover, B&O asserted that involvement was a driver of engagement, as AR has been identified as a persuasive means to spark the customers' curiosity as the technology was suggested to be efficient in order to "*convince consumers to go out..., ...to actually try out a product*" (Appendices 9.4.3, minutes 10-15). In connection, 80 of the respondents claimed that AR could offer a better idea of how it would be to own a product (Appendices, 9.6.8). Contrastingly, when asked about what they have primarily used AR for, only 14 out of the 102 respondents indicated that they had virtually tried on clothing or shoes (Appendices, 9.6.10), elucidating inconsistency between the perceived worth of the technology in relation to the benefits it can deliver and the degree to which it is used for the purpose of such. However, this inconsistency was not present in regard to entertainment, as 86 respondents specified primarily using AR for the purpose of entertainment (Appendices, 9.6.10), equaling the number of respondents who suggested that AR could be used for the purpose of such (Appendices, 9.6.8).

### Customer Participation

Furthermore, it was suggested by ZOO that AR contributes to the engagement of customers by offering "*more possibilities to the customer*" and "*...to evaluate the offerings*" along with the opportunity to "*get a better glimpse of*", "*a product in realistic settings*" and for producing more engagement during the encounter of "*brand and customer*" (Appendices 9.4.1, minutes 5-10). On the basis of such, the capabilities of AR facilitate engagement through participation, particularly in regard to the customers' ability to adjust their expectations toward a brand and obtain an increased comprehension of its capabilities (Carvalho & Fernandes, 2018). Evidently, this is in coherence with the emphasis placed on AR's capability of engaging through vividness, as put forth by McLean and Wilson (2019).

Additionally, it was assumed by TI that a great importance lies in the attempt of getting customers to realize the purpose of downloading an app, along with codes necessary for the enablement of the AR feature, and that the act of such can be "*uphill getting people to onboard*" (Appendices 9.4.2, minutes 15-20). Moreover, 29 out of the 102 respondents identified AR's ability to assist individuals in gaining more knowledge about an experience, as one of its key strengths (Appendices 9.6.16), which may imply that obtaining knowledge on an experience through the use of AR, is of insignificant importance to the respondents. In coherence with this, Bulearca and Tamarjan (2010), highlight the inadequate attention dedicated to understanding AR in relation to the manner in which consumers respond to it, and Hilken, et al. (2018) state that despite the stance of consumers towards AR being generally positive, many are unconvinced that ORG are taking full advantage of it.

In opposition, B&O accredits the ability of AR to "*fix the imagination gap*" of consumers, by allowing them to visualize how a product might look within their home, as the technology's most significant aspect (Appendices 9.4.3, minutes 15-20 & 20-25). This finding corresponds with the survey results, whereby 89 out of the 102 respondents signified the capacity of AR to enable an individual to view a

product within their own environment prior to purchasing it, as one of the technology's key strengths (Appendices 9.6.16), suggesting that respondents deem AR's ability to deliver engagement through participation to be highly effective in regard to providing an enriched idea of how it would be to own a product. Coherently, the survey results highlighted the value of AR in relation to tangible products, as 81 out of the 102 respondents stated that they wished to see an increasing number of CGO to make use of AR in their promotion of offerings in the future, whilst 42 implied desiring it from SXO (Appendices, 9.6.20). By virtue, the results from the respondents indicate a greater future demand for AR initiatives from CGO.

### Customer Interactivity

In regard to the CBE driver of interactivity, an increased level of curiosity and engagement is generated as a consequence of a customer's frequent interactivity with an ORG (Carvalho & Fernandes, 2018). Coherently, TI propositioned that the act of promoting its amusement, "Fatamorgana", through AR, allowed it to *"come out of the magazine"* (Appendices 9.4.2, minutes 0-5). On the contrary, the small number of guests interacting with the AR feature offered by ZOO (Appendices 9.4.1), implied low levels of both interaction, curiosity and engagement (Carvalho & Fernandes, 2018).

Subsequently, the enriched opportunities for engaging with customers were not effectively exploited and the ability of AR to generate advertisement richer in interactivity (Scholz & Smith, 2016) was not perceived as such by the guests within ZOO (Appendices 9.4.1). In addition, ZOO denoted that experiencing technological difficulty or running low on battery may be *"a negative"* and a limitation of AR that could prevent engagement (Appendices 9.4.1, minutes 10-15). This is in contradiction to the CBE driver of interactivity, in that having a bothersome experience with the AR feature could counteract the feeling of being in control during the engagement. Similarly, concerning AR, B&O denoted: *"...I think it will never really replace a real product... for our brand at least, we need the tactility and we need people to touch and that it is not just plastic, it is metal you get and its real leather..."* (Appendices 9.4.3, minutes 15-20).

In relation to the emphasis placed on usage frequency in the CBE driver of interactivity, the findings of the online survey demonstrated differing patterns in the respondents' usage frequency of AR, whereby 36 out of the 102 respondents acknowledged utilizing AR at least once per week, whilst 66 of the 102 respondents signaled utilizing AR a couple of times a month, or even less (Appendices 9.6.9). Furthermore, when dissecting the aforementioned results in relation to the respondents' geographical upbringing, it has been identified that the majority of the 36 respondents whom utilize AR between multiple times per day and once per week, grew up in a capital or large city; accounting for 25 out of the 36 respondents (Appendices, 9.6.24).

In contrast, there were 52 respondents whom utilize AR a couple of times per month or less frequently, of whom had an upbringing in a more sparsely populated area than a capital or large city (Appendices, 9.6.24). Thus, the findings demonstrate a pattern in which respondents who were raised in larger metropolitan areas are more inclined to display frequent usage of AR.

### Customer Flow Experience

Customer flow experiences center on the intensity of pleasure and enjoyment experienced by customers in their interaction with brands (Carvalho & Fernandes, 2018). In regard to the question of which aspects of AR were deemed to be the most important, enjoyment was most frequently ranked as the least important aspect of AR, as 34 out of the 102 respondents specified (Appendices 9.6.18), which lies in contrast with the notion of Rauschnabel, et al., (2019), who suggest a future in which AR can produce pleasurable marketing initiatives. Furthermore, in contradiction to this, B&O denoted that the use of AR can make it *“engaging and more fun...”* (Appendices 9.4.3, minutes 10-15). Likewise, ZOO stated that the application of AR may increase a customer’s sense of pleasure by adding *“increased levels of... fun...”* to organizational offerings (Appendices 9.4.1, minutes 15-20).

By virtue of having delineated the findings in regard to the four potential drivers of CBE, the subsequent section will address the model’s suggested potential outcomes of CBE, in relation to the results gained.

### Customer Cumulative Satisfaction

Cumulative satisfaction encompasses the satisfaction derived from a customer’s relationship with an ORG and suggests that a high level of customer engagement leads to a high level of satisfaction amongst customers (Carvalho & Fernandes, 2018). In line with this, 39 out of the 102 respondents were in agreement of the promotion of an experience becoming more interesting and engaging when empowered through AR (Appendices, 9.6.13). Dissimilarly, ZOO reported low levels of engagement pertaining to their AR initiative: *“As we saw, back when it was working... that not that many people...”*, *“Were actually using the Augmented Reality...”*, *“At the rhino enclosure, so”*, *“that in some way indicates that... Perhaps it has not been interesting enough or just...”*, *“that it just didn’t work like it should...”* (Appendices 9.4.1).

Furthermore, ZOO proclaimed that in general, AR may facilitate enhanced NPS, and thus improve the overall guest experience (Appendices, 9.4.1, minutes 10-15). Likewise, TI acknowledged an increase in their NPS due to the AR zombie game initiative, whereby it rose from 64 to 74 (Appendices, 9.1.9). Furthermore, when respondents were asked for which type of brand, they thought that AR could provide the most value, 24 out of the 102 respondents signaled that this would be the case for a brand that sells experiences (Appendices, 9.6.15); whereby 19 out of the 24 were female, whilst the remaining 5 were

male (Appendices, 9.6.25). Therefore, the findings depict that the potential of AR to increase the NPS of brands that sell experiences, such as ZOO and TI, is more likely to be derived from females (Appendices, 9.6.25).

Moreover, B&O asserted that the inability of customers to experience the sound quality of their offerings through the AR Experience app, could be perceived as an inherent limitation (Appendices, 9.4.3, minutes 30-35). However, 78 out of the 102 respondents were of the belief that AR provides the most value for brands that sell products, such as B&O (Appendices, 9.6.15). In connection, the 78 respondents whom acknowledged that AR provides the most value to a brand that sell products, were comprised of 44 males and 34 females, indicating that B&O's AR Experience app may potentially be deemed to be of greater significance amongst the male respondents (Appendices, 9.6.25).

### Customer Commitment

Furthermore, the CBE outcome of customer commitment, concerns the customer's willingness to devote maximum efforts towards the continuity of the relationship between customer and ORG (Carvalho & Fernandes, 2018). In this regard, McLean & Wilson (2019), purported that hesitation towards committing to AR may originate from the ambiguity of whether or not AR is merely a fad. Correspondingly, 32 out of the 102 respondents pointed towards AR being a gimmick, as one of the technology's disadvantages (Appendices, 9.6.17). Similarly, B&O considered the likelihood of AR becoming a gimmick "... *there is a... verge between... organizations and people that really understand how to use it... and thereby, it can become a gimmick...*" (Appendices, 9.4.3, minutes 0-5). However, 61 out of the 102 respondents, acknowledged that they would form a stronger connection towards a brand such as B&O that sells products, on the basis of the possibility to connect to its offerings through AR (Appendices, 9.6.14).

In the case of SXO, the findings revealed that 31 of the respondents stated that AR may facilitate a stronger connection to such an ORG, whilst 19 posited that AR is incapable of facilitating a stronger connection in regard to any of the two types of brand offerings (Appendices, 9.6.14). Moreover, in regard to the applicability of AR, ZOO remarked: "... *I think it holds a lot of... capabilities, in terms of... enhancing the overall experience for the customer, or guest...but you must have the financial... resources in order to go all the way, so... it depends on the money and... that you need to know how to use it...*" (Appendices, 9.4.1, minutes 0-5). In extension, TI asserted "*that Augmented Reality can provide... increased levels of engagement in the... customer's interaction with a brand...*" (Appendices, 9.4.2, minutes 15-20) and furthermore, the findings from TI showcased that its AR zombie game initiative resulted in 22,000 new app installs and 30,974 pictures taken within the app (Appendices, 9.1.9).



## Customer Trust

Moreover, the CBE outcome of customer trust involves the customer's trust in an ORG capability to deliver its offerings without compromising on functionality (Carvalho & Fernandes, 2018). In this regard, the fact that 86 out of the 102 respondents stated that they primarily use AR for entertainment purposes (Appendices, 9.6.10), may indicate that the respondents were more trusting in the ability of AR initiatives centered on entertainment to deliver as promised, when compared to the 14 respondents that specified primarily using AR for virtual try-ons, and the 22 that implied using AR for finding points of interest (Appendices, 9.6.10). Accordingly, TI propositioned that Pokémon Go's AR initiative generated more trust towards the customer adoption of AR-powered marketing initiatives (Appendices, 9.4.2, minutes 15-20).

Additionally, TI asserted that through the application of AR *"one is able to reduce uncertainty and remove the noise that normally is connected to one's marketing initiatives"* (Appendices, 9.4.2, minutes 40-45). Also, B&O acknowledged AR's capability of enhancing customers' trust by reducing uncertainty, *"I think that is the biggest influence... bridging the imagination gap and getting as you say, uncertainty overdone..."* (Appendices 9.4.3, minutes 10-15). In line with this, 18 out of the 102 respondents indicated being either very familiar or extremely familiar with the technology of AR, which implies that 18 respondents believe that AR can produce the outcome of trust through engagement with an AR initiative (Appendices, 9.6.7). However, looking into the future, 36 respondents somewhat agreed with the conception that over the course of five years it will become more important to them that brands use AR, whereas 23 respondents neither agreed nor disagreed (Appendices, 9.6.19). On the basis of such, this may signal an ambiguity in relation to the respondents' trust in the technology. Conversely, Alibaba, Google and Qualcomm Ventures have affirmed their trust in AR by dedicating large investments in the technology (Elder, 2016).

## Customer WOM Referrals

In regard to the CBE outcome of customer WOM referrals, which are any positive or negative statements about an ORG or offering, that are shared with others (Carvalho & Fernandes, 2018), it has been found that for the ORG of ZOO, AR empowered *"that more guests would share their experiences from the zoo with others in their network..."* (Appendices, 9.4.1, minutes 15-20), whilst TI posited that its AR zombie game initiative *"... was quite fun I am able to say based on the large number of people who shared these zombie-photos with their networks..."* (Appendices, 9.4.2, minutes 15-20), (Appendices, 9.1.9). TI did, however, demonstrate uncertainty with regard to the ability of AR to attract more guests and yet, did posit that the WOM effects of AR could help the ORG accomplish the objective of such *"...I am still unsure whether AR initiatives will be strong enough to empower us getting more guests in Tivoli..."*, *"But I do think that we would be able to enhance the amount each guest is spending whilst they are in our garden..."*, *"And how long each customer is staying in the park... how happy they are*



*with their visit and so on... all parameters that are important to a customer visiting Tivoli... which in the long run, may secure them to revisit Tivoli...”, “And recommend us and thereby... as an indirect effect would attract more guests... but that would most likely be through WOM...” (Appendices, 9.4.2, minutes 40-45).*

From the perspective of B&O, AR has provided shareability by granting consumers the possibility to share photos with others through engagement with the AR Experience app *“It means that they are more engaged, because they want to... actually send those photos...”*, *“So in that way it increases shareability also...”* (Appendices, 9.4.3, minutes 20-25).

Comparatively, the findings confirmed that 41 out of the 102 respondents perceive AR’s ability to facilitate shareability as one of the technology’s key strengths (Appendices, 9.6.16). Moreover, with regards to shareability, the 86 out of the 102 respondents whom identified that they utilized AR with the main objective of providing entertainment, do so through apps and mobile games that encourage shareability (Appendices, 9.6.10). In this regard, the findings may suggest that the shareability provided by AR is more attractive in combination with apps that are utilized for entertainment endeavors.

As a result of having analyzed the results pertaining to the drivers and outcomes of CBE, the findings regarding the constraints and motivations in relation to the generation of engagement through the utilization of the technology of AR, will be outlined in the following section.

### **6.2.2 The Technology Acceptance Model 2**

*This section seeks to analyze the obtained findings from the conducted semi-structured qualitative interviews along with the results collected from the performed quantitative online survey containing 102 respondents, in order to determine how the adoption or rejection of AR empowered marketing initiatives impact consumers’ engagement, compared to the assessment of engagement created through the AR marketing initiatives from the perspective of the selected case organizations. In the interest of such, this section will concentrate on analyzing the findings of perceived usefulness of AR, based on the determinants of the social influence processes along with the cognitive instrumental processes, which in turn, impact the perceived usefulness, and therethrough the intention to use, and ultimately the consumer’s actual usage behavior of AR. Hereby, the consecutive sections will chronologically be constituted by firstly analyzing the perceived usefulness of AR through the social influence processes and the cognitive instrumental processes, followed by the intention to use AR and lastly how the actual usage behavior of AR is construed.*

#### **Perceived Usefulness**

The widespread adoption of global mobile usage, consisting of smartphones and tablets, as suggested by Mekni and Lemieux (2014), may indicate a growth in the importance of other users in relation to the usage of technology, and henceforth AR. In this regard, the findings suggest, that 41 out of the 102 respondents specified the ability of AR to facilitate shareability, as one of the technology’s key strengths and thus, the shareability aspect of AR aspect may influence others in their adoption or rejection of AR (Appendices, 9.6.16).

Also, when the respondents were asked to identify the extent to which their social networks influenced their usage of technology, the results portrayed that 17 somewhat agreed, whilst 30 agreed and 20 strongly agreed, hence 67 out of 102 respondents indicated some level of agreement towards being affected by other individuals in regard to their usage of a technology such as AR (Appendices, 9.6.12). Linked to this notion, additional findings suggest that the 17 respondents whom somewhat agreed, were characterized by the following educational backgrounds; 14 postgraduates and 3 undergraduates (Appendices, 9.6.23). In addition, the 30 respondents that gesticulated that they agreed, were comprised of the following educational backgrounds; 1 other, 12 postgraduates, 13 undergraduates, 3 high school and 1 primary school (Appendices, 9.6.23). Lastly, the 20 respondents acclaiming that they strongly agreed were characterized by the following educational experience; 1 other, 7 postgraduates, 5 undergraduates, 5 high school and 2 primary school (Appendices, 9.6.23). In this regard, the impact of the social influence of others in relation to adoption or rejection of AR, is not clearly associated with one's particular educational background.

This aforementioned conception in relation to the findings, correlates with subjective norm, which Venkatesh and Davis (2000), propositioned as the influence of important others on the rejection or acceptance of a technology such as AR. The presented findings of shareability and influence of others on technology usage can also be perceived as what the latter researchers construe as image, which they describe as the enhancement of a user's status in its social network, as a consequence of technology usage (Venkatesh & Davis, 2000). Hereby, sharing with influential others, along with the adoption of the technological suggestions offered by them, may be seen as a means to enhance one's standing amongst the consumer's social network, and as such, the aforementioned findings may be related to both the social influence processes of subjective norm and image.

Furthermore, findings pertaining to a consumer's image, have also been identified through the question concerning what respondents perceive as disadvantages of AR, whereby only 11 out of the 102 respondents, stated that the technology may only be for young people (Appendices, 9.6.17), placing an insignificant emphasis on the labeling of 'young people' affecting a consumer's perception of AR. In connection, the view of AR as being a gimmick was acknowledged by 32 respondents, whilst 35 respondents recommended that AR must align with the brand's identity and purpose, when the respondents were asked to signal the prevalent disadvantages of AR (Appendices, 9.6.17), which may indicate that the potential of AR being a gimmick or not being suitable for the brand's identity and purpose, bears a more substantial effect on a consumer's perception, in comparison to the idea of it merely being aimed at 'young people'.

Furthermore, B&O emphasized the importance of being cautious not to produce AR initiatives that are perceived as a gimmick, and that are not in sync with the brand's DNA *"... I mean that sort of thing is good for the Tivoli brand... if we were to do something like that.... It would be seen more gimmicky than*

*luxurious, right? So, I think we would always need to watch our brand and that do something that is true...*” (Appendices, 9.4.3, minutes 15-20).

In relation to the three image-related answers, 43 of the respondents implied that the usage of AR may contradict a consumer’s self-perception and 35 stated that it may oppose that of a brand.

In relation to the cognitive instrumental process of job relevance, it is construed as the degree to which an individual deems the usage of AR to be applicable in order to support job tasks (Venkatesh & Davis, 2000). In this context, the promotion of TI’s ‘Fatamorgana’ amusement powered by AR allowed consumers to scan a QR code in order to make the amusement “...*come out of the magazine...*” (Appendices, 9.4.2, minutes 0-5). Hereby, TI suggested that AR supported the consumers in their task of obtaining information regarding TI’s novel amusement. In support of this notion, 60 out of the 102 respondents gesticulated that AR is applicable for providing information about an experience, when asked what AR can be used for (Appendices, 9.6.8). Equivalently, 60 respondents conveyed that AR can be applied to provide a better understanding of how it would be to consume an experience (Appendices, 9.6.8). Identically, 60 of the respondents asserted that AR may benefit them in their task of acquiring knowledge regarding an experience and how it would be to consume it (Appendices, 9.6.8). As such, the findings from TI harmonize with the results from the respondents.

Surprisingly, merely 24 out of the 102 respondents specified that AR provides the most value to brands that sell experiences, when asked for which type of brand they thought that AR could offer the most value (Appendices, 9.6.15), accentuating a discrepancy between the perceived applicability of AR in relation to brands that sell experiences and the perception of which brands AR provides the most value to. Moreover, from the perspective of B&O, the stated results displayed the ORG recognition of AR assisting the customers in their task of estimating how “...*a product would look in their home environment...*” (Appendices, 9.4.3, minutes 20-25). In this regard, 80 out of the 102 respondents stated that AR may grant a more comprehensive idea of how it would be to own a product, and moreover, 81 respondents remarked that AR can be utilized to provide information about a product (Appendices, 9.6.8). An additional finding revealed that 78 out of the 102 respondents found AR to be most valuable to brands that sells products (Appendices, 9.6.15), which displays a consistency towards the two aforementioned findings, and the statement from B&O pertaining to how AR may benefit a consumer in fulfilling a task.

In opposition, TI accentuated that getting guests to use an app, and thereby perceive it as relevant in terms of completing a task, could be difficult and cause friction due to the required engagement from the guests “*As per usual there is at least, without knowing, this friction regarding whether you should download an app, or you ask, you have to engage yourself in some sort of way*” (Appendices, 9.4.2, minutes 5-10). Furthermore, the difficulty in getting consumers to realize the value of AR from the perspective of a brand selling experiences, such as TI, is also reflected in the findings of the online

survey, wherein only 24 out of the 102 respondents point towards AR being most valuable for brands that sell experiences (Appendices, 9.6.15).

Furthermore, the findings exhibited ambiguity in relation to time-saving as a key aspect of an AR application. Herein, in regard to the question of which aspects are most important, 29 out of 102 respondents ranked time-saving as the second-most important aspect of an AR app, whereas 33 ranked time-saving as the least important aspect (Appendices, 9.6.18), demonstrating indistinctness in relation to the perceived benefit of AR in this regard.

Moving on to the cognitive instrumental process of output quality, which refers to the ability of AR to assist a user in performing tasks competently (Venkatesh & Davis, 2000), ZOO reported that AR provides consumers with the possibility to get *“more out of an... out of an offering”* (Appendices, 9.4.1, minutes 0-5).

On the contrary, only 31 out of the 102 respondents specified that AR enables a better connection to a brand that sells an experience, when asked if they would feel a stronger connection towards a brand if it was possible to connect to it through AR (Appendices, 9.6.14). Hereby, it is noticeable that an inconsistency is prevalent between the statement of ZOO and the respondents' answers, through which it can be elucidated that just a small number of respondents perceive AR as enabling the possibility of a stronger connection to a brand that offers experiences.

In addition to the aforementioned, ZOO posited that AR can be leveraged for the creation of an improved overall experience for a customer or guest: *“I think it holds a lot of... capabilities, in terms of... enhancing the overall experience for the customer, or guest”* (Appendices, 9.4.1, minutes 0-5). Likewise, B&O asserted *“Well so... I think that the technology... provides some... possibilities to give the customer a better and, well... a better and more certain experience regarding their purchase”* (Appendices, 9.4.3, minutes 20-25). Also, when the respondents were asked whether or not they would feel a stronger connection toward a brand if they could connect to its offerings through AR, 61 out of the 102 respondents emphasized an agreement towards AR's ability to grant an enhanced connection to a brand that sells products (Appendices, 9.6.14). This may imply that there exists a more widespread agreement from the respondents towards AR's capability of fostering a stronger connection to a brand that sells products, in comparison to brands that sell experiences.

In addition, the cognitive instrumental process of result demonstrability assesses the extent to which AR makes results readily apparent (Venkatesh & Davis, 2000). In this regard, 89 out of 102 respondents stated that the ability of AR to allow people to view a product in their own environment before they purchase it, is among its primary strengths, when asked about the key strengths of AR (Appendices, 9.6.16). This is in line with the assertions put forth by ZOO and B&O, whom accredit AR on its ability to grant consumers a chance to view a product in their personal environment.

From the viewpoint of ZOO, it was suggested that AR offers customers the ability to “*sort of view the product in your own home and..., get a better glimpse of it in... you know, more realistic settings*” (Appendices, 9.4.1, minutes 5.10). Furthermore, the B&O AR Experience app was found to be capable of enabling the consumer to make results more visual: “*And it will always be, that... because we have big, expensive products and you can’t really, take a five hundred thousand speaker into you home without, ah... making sure that, you are really... it makes that...*”, “*Bridge earlier... in the game than...*”, “*than borrowing the product home, and seeing how it looks*” (Appendices, 9.4.3, minutes 15-20).

Moreover, the cognitive instrumental process of perceived ease of use pertains to a user’s expectation in regard to whether use of AR is effortless (Venkatesh & Davis, 2000). In this regard, TI stressed that convincing consumers to actively participate in the tasks required in order to utilize AR can be challenging: “*Just, as mentioned, this thing about that you as a consumer, if we can’t see the purpose or... Then we are pretty selective...*”, “*Regarding what apps we download and which codes we want to scan and all sorts of things right...*”, “*So, it can be uphill getting people to onboard within it...*” (Appendices 9.4.2, minutes 15-20). This correlates with the notion from Bulearca & Tamarjan (2010), who propose that a deeper understanding of consumers’ responses to AR in marketing is necessary.

When turning to the results from the respondents, 21 out of the 102 pinpointed that AR is too complicated and 23 respondents stated that it demands too much effort, when asked about the perception of AR’s potential disadvantages (Appendices, 9.6.17). On the basis of such, a contradicting view between ORG and consumers has been identified, whereby TI views AR to be a challenging measure for consumers to grasp, whilst just a minor proportion of consumers share the same view, therefore indicating an imbalance. However, contrastingly, when asked what they ranked as the most important aspect of an AR app, 57 out of 102 respondents ranked usability, and how easy an AR app is to use and how well it works, as the most important aspect of an AR app (Appendices, 9.6.18). Hence, the latter result may indicate another inconsistency in relation to the perceived disadvantages of AR and the number of respondents who found usability as the most important aspect of AR, as a small number of respondents indicated the technology to be difficult, while a little over half of them ranked usability as the most important aspect.

Moreover, the results from the respondents unveil a divergence between the familiarity of AR and its usage frequency in relation to the technology’s perceived ease of use. As the results demonstrate, 66 out of the 102 respondents feel either moderately (48), very (14) or extremely familiar (4) with the technology (Appendices, 9.6.7), whereas an equal number (66) indicate using AR either a couple of times a month (38) or less frequently (28) (Appendices, 9.6.9). Hereby, it has been assessed that despite

more than half of the respondents feeling either moderately, very or extremely familiar with the technology, the same amount of respondents specify using it infrequently.

As identified in this section, a multitude of determinants influence a consumer's perceived usefulness, which affects a consumer's intention to use AR. On the basis of the connection between consumers' perceived usefulness and their intention to use (Venkatesh & Davis, 2000), the previously outlined findings pertaining to the determinants of the social influence processes and the cognitive instrumental processes portrays a consumer's perceived usefulness and intention to use, in a simultaneous manner. Henceforth, the following section will address the findings in terms of the usage behavior of consumers in relation to AR.

### Usage Behavior

In regard to the potential outcome of the TAM2 model, usage behavior refers to a consumer's rejection or actual adoption and therefore, usage, of a technology such as AR (Venkatesh & Davis, 2000). By virtue of the initial filtration question as previously stated in section 1.7.5, the total amount of 145 respondents was then delimited to 102, whereby 43 respondents were rejected on the basis of possessing no previous experience with using AR (Appendices, 9.6.1). This implies that a total of 102 respondents indicated that they had adopted the technology of AR; thus, demonstrating positive usage behavior towards the technology. Moreover, the quantity of respondents whom have never utilized AR represent a substantial proportion out of the initial 145 respondents.

Another finding in relation to consumers' usage behavior of AR, has been revealed by the respondents' indication towards how often they utilize AR, whereby the findings suggested that 38 out of the 102 respondents signaled using the technology a couple of times a month, whilst 28 answered using AR even less frequently (Appendices, 9.6.9). As depicted within the open answers, some of the 28 respondents remarked that they use AR "Once a year", "Twice a year" and "Less than a couple of times a month" (Appendices, 9.6.9). In line with the infrequent AR usage identified from the results within the survey, ZOO purported that its AR initiative was not used to such a high degree "...it seemed like people did not use it..." (Appendices, 9.4.1, minutes 0-5). Conversely, TI reported significantly high levels of usage from its consumers, in relation to its AR zombie game (Appendices, 9.1.9).

### 6.2.3 Interim Conclusion

*The findings demonstrated that while the majority of survey respondents did express that they had prior experience with AR, a substantial proportion indicated having no prior experience of engaging with it. It was identified that the technology of AR enables SXO's to increase NPS levels and facilitate engagement with customers by creating offerings that are more captivating, engaging and involving, which was also found to be challenging in some instances.*

*Although it was portrayed that nearly all respondents inferred that AR could be used for entertainment purposes, that most respondents use it for the purpose of such, and that more than half of the respondents proclaimed that AR could deliver insight regarding experiences, it was widely acknowledged that the respondents perceive AR to provide the most value for CGO, whereby both male and female respondents found AR most useful as a result of its ability to visualize the fit of a tangible product in a private environment. The respondents also conveyed a desire for more future AR initiatives from CGO and that the possibility to form a stronger connection to a brand utilizing AR is greatest for that type of organization. It was also illuminated from the respondents, that females perceive AR to be more valuable to SXO and that females are more likely to view AR as unique.*

*Furthermore, the results illustrated that the majority of respondents utilize AR infrequently and that respondents who grew up in geographically metropolitan areas engage with AR more frequently than those who grew up in less populated areas. Results also convey that the majority of respondents are to some extent affected by their social networks in relation to their engagement with technology, however, educational background was not found to have a significant influence. AR was not perceived to be predominantly confined to young people, however, the notion of it being a gimmick and not ensuring that AR is suitable for the respective brand along with the potential of facing technological difficulty during an encounter with an AR initiative, were found to be limitations of the technology's capacity to generate engagement between organizations and consumers.*

## **6.2 Unique Experiences**

In this section, the researchers seek to address the concept of CX through the general framework of CX as proposed by Gentile et al. (2007), through which the technology of AR is to be dissected and analyzed in an effort to assess its capability of forming unique experiences, to identify which dimensions of CX it influences, and moreover, to understand how the value creation process is affected. Along these lines, the researchers aim to answer the second sub-research question: *How can Augmented Reality enable organizations to create unique experiences?*

### **6.2.1 The General Framework of Customer Experience**

According to Gentile et al. (2007), a CX may contain a number of components, that in combination, may provide reciprocal value to both customers and ORG; namely, the Sensorial Component, Emotional Component, Cognitive Component, Pragmatic Component, Lifestyle Component and Relational Component.

#### **Sensorial Component**

From the perspective of ZOO, its AR initiative by the rhinoceros enclosure was found to provide captivating visual information: "...We did notice that some people saw that they could learn more... or see more about the rhinoceros...", "Get additional information and...", "Get information that was

*more... more interesting compared to...*”, *“To the traditional boards or signs that we... that we normally use to illustrate information...”*, *“About the animals...”* (Appendices, 9.4.1, minutes 5-10). Also, the promotion of TI’s rollercoaster enabled through AR technology was found to *“bring it to life”*, *“Yes, well, we begun using it in order to promote a rollercoaster that wasn’t built yet. So how do you tell a consumer how a rollercoaster looks, and then we used Augmented Reality in the app and also in some... print marketing, where you could see this rollercoaster come to life, either in the Garden or in these that were sent out...”* (Appendices, 9.4.1, minutes 10-15), whilst B&O found the ability of customers to visualize the product within their home effective: *“... yeah, you could say that it helps us... deliver an experience to the customer where they can get closer to... to how the product would actually look if they buy it...”* (Appendices, 9.4.3, minutes 20-25). As such, the ORG found AR beneficial in terms of engaging the sense of sight among consumers in relation to the organizational offerings.

In connection, when asked about the perceived strengths of AR, the results from the respondents revealed that only 29 out of the 102, specified its ability to assist people in learning more about an experience (Appendices, 9.6.16), while 65 out of the 102 respondents indicated that one of AR’s strengths is its capability of enabling the respondents to learn more about a product (Appendices, 9.6.16).

In this regard, 19 female respondents and 5 male respondents suggested that AR provides the most value to brands that sell experiences (Appendices, 9.6.25), meaning that a total of only 24 out of the 102 respondents suggested that AR provides the most value to a brand that sells experiences (9.6.15), which may correspond with ZOO who suggested that AR can have the greatest impact in offerings of an ORG that help consumers solve problems *“I think that the technology can best impact... those companies that really, really help their consumers solve a problem...”* (Appendices, 9.4.1, minutes 15-20) and TI, who referred to AR’s value in delivering a view of a product *“And then also of course... based on what it can do for the powerhouse IKEA in terms of... of...”*, *“Of providing a unique way for the customer... to view the product and get a feel of it...”*, *“On their homeground”* (Appendices, 9.4.2, minutes 20-25). Furthermore, ZOO remarked that it may be unattractive for some guests to have to direct their gaze towards AR instead of the actual animals: *“Then also just... you know, the core product or offering that... seeing our animals in person... some people might think that having to... to use, to have to use their smartphones and the app...”*, *“That that sort of took away from or... took some focus away from actually experiencing the...”*, *“Animals with their own set of eyes...”* (Appendices, 9.4.1, minutes 10-15), and B&O specified the inability of AR to allow consumers to touch the material of its offerings: *“I think it will never really replace a real product... for our brand at least, we need the tactility and we need people to touch and that it is not just plastic, it is metal you get and its real leather and all those things... so it will never replace it, but right now I mean... it serves the purpose that ...we use it for...”* (Appendices, 9.4.3, minutes 15-20).



By virtue, the value propositions supplied by the ORG may foster positive value perceptions from the customers during their experiences by stimulating their senses to evoke excitement, satisfaction and aesthetical pleasure, and potentially meeting or exceeding their expectations; therefore, bringing levels of value realization back to the ORG.

### Emotional Component

In regard to the emotional component of an experience (Gentile, et al., 2007), ZOO proposed that AR initiatives may enable the formation of unique experiences by creating feelings of fun during the customers' experiences, and as a result, make them more memorable and worthy of sharing: *"I think that AR can sort of, create some experiences that ... are more fun for... in our case that would be more fun for our guests, so in terms of..."*, *"Making the overall experience better, like maybe... fun like I said, and then perhaps that it could help make guest experiences more memorable..."* (Appendices, 9.4.1, minutes 15-20), *"Yes, so... in some regard, like in terms of... making them memorable and... more shareworthy, and fun... I guess you could say unique, yes, in some sense"* (Appendices, 9.4.1, minutes 15-20). In line with this, TI assumed that its AR-enabled promotion of its rollercoaster generated fun and excitement: *"And it was so new at the time that I believe people thought it was fun and exciting..."* (Appendices, 9.4.2, minutes 10-15) and that its AR zombie game generated fun for the guests: *"... that was an initiative that many of our guests and customers thought was... was quite fun I am able to say based on the large number of people who shared these zombie-photos with their networks..."* (Appendices, 9.4.2, minutes 15-20). Furthermore, TI also suggested that AR can make guests happy: *"And how long each customer is staying in the park... how happy they are with their visit and so on... all parameters that are important to a customer visiting TI... which in the long run, may secure them to revisit TI..."* (Appendices, 9.4.2, minutes 40-45). In line with this, B&O also propositioned that AR can produce fun for consumers during their experiences: *"I mean, it is more just, engaging and more fun..."* (Appendices, 9.4.3, minutes 10-15). Correspondingly, when asked about what AR can be used for, 86 out of the 102 respondents stated that it can be used to provide entertainment (Appendices, 9.6.8). However, when asked whether the respondents were of the perception that a stronger connection could be established with a brand based on its AR offering, only 31 out of the 102 specified that to be the case in regard to SXO (Appendices, 9.6.14), of which 9 are male and 22 are female (Appendices, 9.6.28), while 61 acclaimed that to be true for a CGO (Appendices, 9.6.14) with a gender distribution of 37 male and 24 female respondents (Appendices, 9.6.28).

Furthermore, when asked about which aspects of AR the respondents deemed most important, enjoyment was ranked the least important aspect in the most common and second most common answers, with 34 ranking it to be the second least important and 35 ranking it the least important (Appendices, 9.6.18). Furthermore, B&O also posited that AR can grant an enhanced and more

convincing experience for customers during their purchase: “... *I think that the technology... provides... some possibilities to give the customer a better and, well... yeah, a better and more certain experience regarding their purchase...*” (Appendices, 9.4.3, minutes 20-25), which to an extent coheres with the findings whereby 66 of the 102 respondents portrayed some level of agreement towards the notion that they feel more confident in buying a physical product when able to see it in their private environment, whilst 23 out of the 66 strongly agreed (Appendices, 9.6.13). From the perspective of ZOO, the guests who were not able to use the AR feature due to experiencing technological difficulty or battery shortage may have experienced negative feelings and emotions during their experiences: “*So if that was the case then it sort of, did not ... did not let them actually use the Layar app to... to see the animals or the application that we have.*” (Appendices, 9.4.1, minutes 10-15).

As such, the ORG value propositions may generate positive value perceptions among customers during their experiences through involving their affective systems and hereby producing emotional experiences for the customers, which, in turn, may align with or exceed their expectations, and as a consequence, potentially deliver a realization of value back to the ORG.

### Cognitive Component

With regard to the cognitive component of CX (Gentile, et al., 2007), ZOO purported that AR can aid customers in their experiences of evaluating products: “... *At least to my knowledge I think that it can..., can sort of help the customers when they are, you know... looking for products to buy...*”, “*So sort of when they are thinking... evaluating different products...*” (Appendices, 9.4.1, minutes 0-5), while the ORG also asserted that guests interacting with its AR initiative were able to get more knowledge: “*For the guests who could then, with their smartphones... get more knowledge about the animal... the rhinoceros*” (Appendices, 9.4.1, minutes 5-10), which might have activated their cognitive efforts. Additionally, TI posited that AR can produce CXs that invite for cognitive activation through active participation, creativity and unique content: “*No, but I mean there is at least something to the ability to enable the user to be creative on one’s own premises*”, “*Again, this thing of transitioning from being the spectator to “This is what you can do”, to being able to do it yourself...*”, “*To try a couple of things, when you want and convenience, which we also talk about previously, and then creating this unique content for yourself that is so important in a Social Media driven reality...*” (Appendices, 9.4.2, minutes 10-15). Furthermore, TI stated that AR can be leveraged in order to inspire customers to involve themselves in a manner in which they will be compensated by a unique experience: “*Which again, requires more involvement from the customer also...*”, “*But if balanced properly... my belief at least is that it can help enhance the customer experience and create... create unique and special experiences...*” (Appendices, 9.4.2, minutes 20-25). In this regard, 59 out of the 102 respondents implied conceiving of AR as something unique, when asked whether they view AR as something unique, while 37 indicated

that it was not (Appendices, 9.6.11). Out of the 59 respondents who did specify that they view AR as unique, 34 are female, while 25 are male (Appendices, 9.6.22).

From the perspective of B&O, it was suggested that AR can provide uniqueness through improving the CX by assisting customers in their processes of assessing the suitability of a product within their own environment: *“So in that... or in that regard, I think that AR helps us create a better experience for our customers that...”*, *“Or people that want to see if a product, is right for them and their... home or some other place, you know”*, *“So in that way AR can do something that is unique in... in terms of sort of... for the customer to “fix” the imagination gap”* (Appendices, 9.4.3, minutes 20-25). In connection, when asked about what AR can be used for, 80 out of the 102 respondents signaled that AR can be utilized in order to deliver a clearer view of how it would be to own a product (Appendices, 9.6.8).

On the contrary, the interviewees from the three ORG of ZOO, TI and B&O, unveiled limitations pertaining to AR’s ability to enrich experiences through the cognitive component. ZOO referred to the potential of facing technological difficulty in relation to an AR initiative: *“Yeah I mean... Some of... you know naturally, as it is usually with...”*, *“With the older population...”*, *“Some of them, it seemed... spent more time to...”*, *“To download the app and to get it working...”* (Appendices, 9.4.1, minutes 5-10 & 10-15), while TI stressed the necessity of balancing the mental effort required from the customer with the benefit granted in return: *“So you always have to sort of weigh it so that there is a balance”*, *“In between the inconvenience that... that you create for the consumer who has to download...”*, *“An app, and the value you can bring to... to the consumer as a result.”* (Appendices, 9.4.2, minutes 15-20), and B&O remarked that the use of AR does not allow for customers to experience the sound quality of the ORG: *“...it is still... you know... how much bass do we put in, and how much treble and what is the resolution of our spectrum... you will always have to go listen to our products...”* (Appendices, 9.4.3, minutes 30-35).

Furthermore, the value propositions of the ORG may lead to positive value perceptions from the customers in relation to their experiences by engaging their cognitive capacity in beneficial ways that may correspond to or exceed their expectations, and thus, supply realizations of value back to the ORG.

### Pragmatic Component

In relation to the pragmatic component of a CX (Gentile, et al., 2007), ZOO speculated that the use of AR can add convenience to people’s everyday lives: *“So you need to find those areas where it’s either... really upping the ... the experience, or it’s makes the... it makes it more convenient, your everyday lives, to use these...”*, *“Functionalities”* (Appendices, 9.4.1, minutes 25-30), while as earlier mentioned, AR allowed guests within TI to shoot zombies *“...we used it to create some gamification in the Garden”*, *“Where you could shoot zombies.”* (Appendices, 9.4.2, minutes 15-20), and also suggested that using

AR can “...get the customer to actively ... do something in relation to your brand...” (Appendices, 9.4.2, minutes 20-25). Additionally, TI also stated that AR enables customers to touch and engage with a brand in manners that are unique to AR when compared to other forms of digital marketing: *“I might well be, that you get lesser people who are in-touch with it or see it, but those actually are interacting with it... are actually touching your brand and are engaging with it... which you wouldn’t be able to achieve with other forms of digital marketing...”* (Appendices, 9.4.2, minutes 30-35). In this regard, McLean and Wilson (2019), proposed that AR can enable ORG to produce enthralling and unique experiences (McLean & Wilson, 2019), however, when asked about the perceived strengths of the technology of AR, only 30 out of the 102 respondents specified AR’s ability to enhance the experience with a brand, as a key strength (Appendices, 9.6.16).

Furthermore, findings from B&O that suggest that the probability of a customer using AR to go to one of the brand’s stores is higher than a regular consumer: *“...I mean we can directly measure... that people using our AR app, is four more times as likely to go to a store, than a normal consumer...”* (Appendices, 9.4.3, minutes 10-15) along with the enablement of customers to obtain greater clarity of how it would be to purchase one of the ORG offerings *“...you could say that it helps us ... deliver an experience to the customer where they can get closer to... to how the product would actually look if they buy it...”* (Appendices, 9.4.3, minutes 20-25), may be attributed to the pragmatic use of AR. In further regard, ZOO emphasized the importance of customers being able to recognize the value in using an AR initiative: *“...but also for the consumer I think it has to... to be something that they can use also, obviously”* (Appendices, 9.4.1, minutes 0-5), which TI also accentuated and acclaimed to be challenging: *“I’m become surprised how difficult it can be to get people to...”*, *“Yes, if it doesn’t solve a task or problem for the consumer then it’s sort of “Why should I?”* (Appendices, 9.4.2, minutes 5-10). From the viewpoint of the 102 respondents, a low number of respondents, 23 and 21 respectively, indicated that AR demands too much effort and is overly complicated, when asked about the perceived disadvantages of the technology (Appendices, 9.6.17). Moreover, the usability of an AR app, was convincingly ranked as the most important aspect of an AR app by 57 out of the 102 respondents (Appendices, 9.6.18). Furthermore, the ability of AR to make people more confident in their decision was ranked the most important by 21 respondents, and enjoyment and the time-saving aspect of AR were equally ranked the most important by 12 respondents (Appendices, 9.6.18)

By virtue, organizational value propositions have the potential to produce positive value perceptions from the customers on the basis of their experiences by offering AR initiatives that are rich in usability and that allow customers to extract positive outcomes as a result of usage. As a consequence, the experience may meet or surpass customer expectations, and result in the transfer of value from customers to the ORG who may realize it.

## Lifestyle Component

In regard to the lifestyle component of a CX (Gentile, et al., 2007), ZOO reported that its use of AR can allow it to be viewed as a more modern ORG and potentially enable it to attract alternative audiences: *“Of course we would be seen as a more modern player in the field”, “And that said, perhaps attract some more... some other audiences than we do today”* (Appendices, 9.4.2, minutes 20-25), which could imply that the implementation of AR initiatives can alter the brand in order to provide CXs that harmonize more adequately with the lifestyle values of customers who perceive themselves to be modern. Similarly to the modernizing effect of AR, as perceived by ZOO, TI posited that the use of AR can characterize a brand that is curious and experimentative: *“...It might be a generalization to say that it may be a brand that is curious towards new technology or that tests things...”* (Appendices, 9.4.2, minutes 15-20), which may imply that TI is of the belief that utilizing AR in the formation of experiences can provide those that cater to individuals whose lifestyle values are also curious and experimental. Concurrently, TI contemplated applying AR in order to provide guests with the historical context in relation to the brand’s long history: *“...That there is surrounding TI, in that regard we have discussed this thing about both being able to see, I mean to use Augmented Reality in order to, “this is how it looked back in the old days...”* (Appendices, 9.4.2, minutes 15-20), and thus, it may indicate that TI also finds AR suitable in order to accommodate for customers whose lifestyle values cherish tradition. Furthermore, TI’s appraisal for AR’s capability of allowing customers to be independent and autonomous in regard to their consumption experiences: *“It may facilitate the opposite context, where consumers can define by themselves what they constitute as being interesting or where the consumer actively engages with the brand to seek information about something... which I see as something quite interesting and unique...”* (Appendices, 9.4.2, minutes 30-35) may signal that TI believes that AR is suitable for customers whose lifestyle values appreciate independence.

On the contrary, B&O placed emphasis on AR’s ability to highlight the design of the ORG offerings: *“Yeah... and if you chose to buy B&O, compared to Bowers & Wilkins... I mean you give more for the brand... and you thereby give more for the actual design...”*, *“So, so AR helps prove that point.”* (Appendices 9.4.3, minutes 10-15). In this regard, it may be elucidated that AR is more effective in intriguing customers whose lifestyle values strongly appreciate design.

Furthermore, when the 102 respondents were asked to indicate their sentiment pertaining to whether they would expect CGO to offer them the opportunity to view a product in their own environment prior to purchasing it over the next five years, 70 respondents demonstrated some level of agreement, 12 neither agreed nor disagreed and 20 exhibited disagreement to some extent (Appendices 9.6.19). As a result, it may be estimated that the majority of the respondents believe the technology of AR to harmonize with their lifestyle values. In connection, when asked whether the 102 respondents think that it will become more important to them that brands use AR over the next five years, 64 respondents

portrayed some level of agreement, whilst 38 portrayed a level of disagreement (Appendices, 9.6.19). However, 23 respondents neither agreed nor disagreed. Furthermore, the 11 out of the 102 respondents whose perception that AR is merely being for young people as part of the technology's disadvantages (Appendices, 9.6.17), indicates that low quantities of the respondents perceive AR to contradict their lifestyle values on this basis.

Additionally, on the notion of guests using their phones within ZOO, the zoo remarked: *"We're not asking them to put it away..."* (Appendices, 9.4.1, minutes 20-25), while also expressed that the ORG considered the role of the phone within their experience offering: *"...we both had internal discussions revolving that and we have also gotten a few inquiries from guests in the following, because, being in Tivoli is also often for many, about being together and putting that phone in the pocket..."* (Appendices, 9.4.2, minutes 15-20). Furthermore, B&O's remark pertaining to the potential of AR to diminish the luxury component of its brand: *"I mean that sort of thing is good for the Tivoli brand... if we were to do something like that.... It would be seen more gimmicky than luxurious, right?"* (Appendices, 9.4.3, minutes 15-20), may indicate that it is careful to provide an experience that is aligned with the lifestyle values of its customers who value luxury.

The value propositions offered by the ORG may create attractive value perceptions among customers by granting AR initiatives that provide experiences that correspond with the lifestyle values of customers; thus, meeting or exceeding the expectations of the customers, who may transfer value back to the ORG as a result.

### Relational Component

With reference to the relational component of a CX (Gentile, et al., 2007), it was suggested by ZOO that AR may foster experiences that people want to share: *"But, but Augmented Reality could be a means of addressing these", "To perhaps create Instagram-worthy moments and such..."* (Appendices, 9.4.1, minutes 10-15), *"So in the way, that more guests would share their experiences from the zoo with others in their network..."* (Appendices, 9.4.1, minutes 15-20). Moreover, TI gave more appraisal for AR in comparison to VR, due to the former being able to accommodate for the social element, which was deemed important: *"Well in reality I think that Augmented Reality has an even bigger future ahead of it than Virtual Reality ah... because you don't remove reality completely..."*, *"So there still is room for the social element, which is at least important for our business..."* (Appendices, 9.4.2, minutes 0-5), and as earlier identified, TI recorded 17,432 shared pictures within its AR zombie game initiative (Appendices, 9.1.9) which has pleased the ORG: *"... the numbers that we have been presented in relation to how many pictures that have been shared... ah, we have been really happy with..."* (Appendices, 9.4.2, minutes 20-25). Furthermore, B&O also highlighted AR's capability of enabling shareability within customers' experiences with the brand: *"I mean... a lot of people are sharing it..."*



*ah... I don't think I have numbers... here right now... but I mean it is... it's, it's a... common thing...”,* (Appendices, 9.4.3, minutes 40-45). In this regard, it was identified by the three ORG that AR can facilitate shareability, however, only 41 out of the 102 respondents (Appendices, 9.6.16), comprised of 16 male and 25 female respondents, indicated AR's aptitude to facilitate shareability as one of the perceived strengths of the technology (Appendices, 9.6.27).

Although the ORG asserted positive remarks in relation to AR's ability to foster shareability among customers, TI considered how the use of AR, and thus phones, may diminish the relational component of their offering: *“So we constantly have discussions regarding when, when ah... when we develop something digital, when is it part of, of, of just making a transaction faster, for example paying or ordering a table...”, “And removing some friction...”, “Or creating some new unique experience and not... you know give the experience that “now we've got them to come to Tivoli and now they're just walking around looking into their phones again”* (Appendices, 9.4.2, minutes 15-20).

The ORG value propositions directed at its customers may result in positive value perceptions by directing AR initiatives at customers that accommodate for the relational component of an experience that may equal or surpass the customers' expectations, and subsequently, lead to value conveyed from the customers towards the ORG who may realize it.

### **6.2.2 Interim Conclusion**

*The survey results depict that AR initiatives can foster unique experiences that bring value to the CX amongst SXO and CGO by stimulating their sense of sight, however, it was identified that AR has the greatest impact on offerings that help solve a problem. Respondents perceived AR's stimulation of the sense of sight as a strength more frequently for CGO, for which AR's inability to engage the sense of touch was found to limit its effectiveness. In addition, AR was found to be capable of evoking the emotions of fun and excitement from customers during their encounter with offerings from both SXO and CGO, while nearly all of the respondents specified that AR can be used to provide entertainment. Generally, the respondents indicated a higher likelihood of forging a stronger connection towards a CGO based on its AR initiatives, while males portrayed a higher probability towards forming a stronger brand connection with CGO using AR, and females were substantially more likely to do so in relation to SXO. Also, the respondents generally identified usability as the most important, and enjoyment as the least important, aspect of an AR app.*

*It was found that customers of SXO can be rewarded with unique and special experiences by cognitively and actively participating with the stimuli provided by AR, and that AR's enhanced possibilities for a CGO can create uniqueness to customers in regard to product offerings.*

*The results further demonstrated a difficulty in inducing customers to pragmatically engage with AR and that it necessitates a self-perceived customer value, however, AR was found to be capable of*

*facilitating a unique experience between organizations and customers, through which the latter can touch and engage with brands in ways that are unique to the technology of AR.*

*Furthermore, while the enhancement of the experience with a brand was not deemed a strength by many respondents, it was portrayed that AR can entice customers towards product offerings and that it can benefit the experience of customers who value product design.*

*For SXO, the usage of AR was considered potent in regard to shaping the CX of customers with modern, independent, experimentative, curious and tradition-centered lifestyle values. It was also exhibited that AR experiences will be welcomed by the lifestyle values of customers over the next five years and that AR is suitable for the creation of shareable and thereby relational CX, across both SXO and CGO, yet, the respondents did not widely consider its aptitude of facilitating shareability a strength.*

## 6.3 Consumer Decision-Making

In this section, the researchers seek to explore the technology of AR in relation to the CDMP that occurs when consumers interact with ORG. On the basis of such, the technology of AR is to be dichotomized and analyzed drawing upon the EKB model as proposed by Blackwell et al. (2006), with the goal of exposing how the technology of AR influences the CDMP, through the examination of the EKB models five inherent steps, as well as the entirety of the process. In line with this, the researchers aspire to answer the third sub-research question: *How does Augmented Reality influence consumer behavior in relation to consumer decision-making?*

### 6.3.1 The Engel-Kollat-Blackwell Model

#### Problem Recognition

The initial stage of the CDMP is problem recognition, which refers to the consumer's comparison of its current situation in relation to how the consumption of an offering may lead it to its desired situation (Blackwell, et al., 2006). Furthermore, AR is viewed by several marketers as a means to provide value to consumer's during the totality of their CDMPs (BCG, 2018). From the view of ZOO, however, it was identified that the ORG AR initiative did not generate much attention from the consumers: *"...But for the customer also I mean... As we saw, back when it was working... that not that many people were..."*, *"Were actually using the Augmented Reality..."*, *"At the rhino enclosure, so that in some way indicates that maybe it... Perhaps it has not been interesting enough or just..."*, *"... not interesting enough..., or maybe that... that it just didn't work like it should..."* (Appendices, 9.4.1, minutes 5-10). Moreover, TI accentuated the importance of clearly conveying to the consumer the value generated through the use of AR, and cautioned that failing to do so may discourage consumers to make use of it: *"Yes, if it doesn't solve a task or problem for the consumer then it's sort of 'Why should I?'"* (Appendices, 9.4.2, minutes 5-10). Also, B&O asserted that AR is inefficient in terms of creating awareness: *"So, I mean for awareness and for that type of stuff... I mean AR is not really that good..."* and denoted that the technology should not be applied to all phases of the customer's journey: *"...but I mean, I think it is*



*important to use AR where it makes sense, and not just force it down to every parts of the customer journey”* (Appendices, 9.4.3, minutes 10-15).

From the perspective of the respondents, and in regard to the 43 who specified not having any previous experience utilizing AR out of the initial 145 respondents, it could be implied that these 43 respondents never deemed AR capable of bringing them to their desired situation. As such, there could be a coherence between the potential ineffective outcomes of AR as suggested by the ORG, and the findings from the respondents within the online survey.

On the other hand, the ORG also presented positive remarks in relation to AR. In this regard, ZOO reported that its AR feature provided information about its animals to the guests who used it in a more interesting manner in comparison to its traditional measures: *”We did notice that some people saw that they could learn more... or see more about the rhinoceros, where they live and sort of...”*, *“Get information that was more... more interesting compared to...”*, *“To the traditional boards or signs that we... that we normally use to illustrate information...”* (Appendices, 9.4.1, minutes 5-10). Contrary to the notion from B&O in relation to AR’s ineffectiveness at generating awareness, the ORG of TI combined AR with the promotion of its new amusement, Fatamorgana: *“...and then our new amusement, which was Fatamorgana, would sort of ‘come out of the magazine’ ...”*, which TI proposed was a proficient approach to promote the amusement that was not yet constructed: *“And it was so new at the time that I believe people thought it was fun and exciting and you could see something evoke from the flyer”* (Appendices, 9.4.2, minutes 10-15). In opposition to its previous assertion, B&O later highlighted the value of AR in connection to the generation of awareness: *“I think that... I think it is still in the two ways that we use it... using it... it is still in the early funnel of awareness and all the way up to purchase...”* (Appendices, 9.4.3, minutes 25-30). In line with this, when asked to indicate their sentiment towards the notion of whether the promotion of an experience empowered by AR becomes more interesting and engaging, 76 out of the 102 respondents expressed some form of agreement, whereby 25 respondents somewhat agreed, 39 agreed and 12 strongly agreed (Appendices, 9.6.13). In addition, 74 out of the 102 respondents indicated agreement to some extent, when asked to specify their sentiment of the same statement in regard to the promotion of products, whereby 26 somewhat agreed, 37 agreed and 11 strongly agreed (Appendices, 9.6.13).

It was also posited by TI that Pokémon Go's AR initiative sparked a general interest in AR among consumers as a whole, which subsequently became valuable to the ORG of TI: *“Then the Pokémon Go came. Initially we were of course quite disappointed, but then we actually became quite happy with it because they began the learning curve that caused people to begin to go around with their phones in that regard, which at that time was completely new”*, *“And we were finished with our Halloween, and at that time it was completely obvious for people to try it...”* (Appendices, 9.4.2, minutes 15-20). TI also denoted that AR can benefit an ORG by intriguing consumers to communicate with it and devote their

attention to it: *“In the regard that... people or customers, want to communicate with your brand...”*, *“Or in some way, place their attention towards...your offerings, your organization and what you stand for...”* (Appendices, 9.4.2, minutes 15-20).

As such, it may be elucidated from the statements from the three ORG and the results from the respondents, that AR can enhance a consumer’s interest in an offering. In addition to having presented the findings in relation to a consumer’s problem recognition, the results pertaining to the stage of information search will be outlined in the following section.

### Information Search

As proposed by Blackwell et al. (2006), the second stage of the CDMP is constituted by information search, which encompasses the consumer’s search for information regarding an offering through various forms of internal and external stimuli. In this regard, the usage of AR with the objective of enhancing consumers in their CDMP, as adopted by large ORG such as L’Oreal, Nike and Adidas (Archer, 2016), has been supported by ZOO, who asserted that AR enables the consumer to *“see”*, *“Or sort of view the product in your home and...”*, *“In that way view and..., get a better glimpse of it in... you know, more realistic settings...”* (Appendices, 9.4.1, minutes 5-10). Furthermore, ZOO proclaimed that by using AR, the *“...guests who could then, with their smartphones... get more knowledge about the animal... the rhinoceros”* (Appendices, 9.4.1, minutes 5-10), which as previously mentioned, was supported by the 76 out of the 102 respondents who expressed some form of agreement towards the notion that the promotion of an experience through AR generates a more interesting and engaging outcome for the consumer during its search for information (Appendices, 9.6.13).

Moreover, TI’s AR-powered promotion of its incomplete amusement made it more captivating for the consumers during their information search: *“I believe people thought it was fun and exciting”* (Appendices, 9.4.2, minutes 10-15). Furthermore, TI contemplated expanding its usage of AR in order to help guests during their search for food and vacant restaurant tables: *“Yes... that could easily be an opportunity and especially in the context of... ah... removing friction in relation to being able to know where to eat, but also by knowing if there are vacant tables at the specific restaurant... and based on which food-types one is looking for... but that is so to speak old-fashioned text at the moment...”* (Appendices, 9.4.2, minutes 20-25), as well as for informing guests on the historical context: *“...in that regard we have discussed this thing about both being able to see, I mean to use Augmented Reality in order to, “this is how it looked back in the old days”* (Appendices, 9.4.2, minutes 15-20). From a general perspective, TI suggested that AR grants *“a unique way for the customer... to view the product and get a feel of it...”*, *“On their homeground”* (Appendices, 9.4.2, minutes 20-25), and thus, enables customers to get information about the product in their own private environment, which corresponds with the proposition that AR facilitates innovative ways for customers to interact with an ORG offerings (Hinsch, et al., 2020).

Additionally, this coheres with the 80 out of the 102 respondents who specified that AR can provide a better idea of how it would be to own a product (Appendices, 9.6.8), whereby 78 asserted that AR provides the most value to CGO (Appendices, 9.6.26). Moreover, among these 78, 30 were individuals between the ages of 26-30, and 20 were between 22-26 years old (Appendices, 9.6.26).

In this regard, the accentuation by B&O of AR's value towards enabling the facilitation of information search early in the consumer's CDMP also aligns with the results from the respondents: *"...still that you can image how big your speakers is in your home... so, so that's that..."*, *"And it will always be, that... because we have big, expensive products and you can't really, take a five hundred thousand speaker into you home without... making sure that, you are really... it makes that..."*, *"Bridge earlier... in the game than..."*, *"Than borrowing the product home, and seeing how it looks"* (Appendices, 9.4.3, minutes 15-20).

Likewise, TI suggested that AR can assist users in receiving information quicker: *"...as I have mentioned I have been presented with good examples of the latter where, so to speak AR has enabled people in being able to repair something..."*, *"With data... in terms of being able to receive information directly, instead of having to... have a look in a service manual or other pamphlets..."* (Appendices, 9.4.2, minutes 35-40), and that the technology can be a driver of marketing initiatives *"...if it is part of or is able to solve a problem for customers... being easing the access to information or making it easier to decorate one's home..."* (Appendices, 9.4.2, minutes 25-30).

In addition, TI purported that the utilization of AR can alter the exchange of information between an ORG and the consumer: *"Yes, well instead of being an inside-out approach, where we tell you what is interesting..."*, *"It may facilitate the opposite context, where consumers can define by themselves what they constitute as being interesting or where the consumer actively engages with the brand to seek information about something... which I see as something quite interesting and unique..."* (Appendices, 9.4.2, minutes 30-35).

On the other hand, B&O remarked that AR is incapable of allowing the consumer to obtain information concerning the feel of the material of the ORG offerings: *"... I mean, I think it will never really replace a real product... for our brand at least, we need the tactility and we need people to touch and that it is not just plastic, it is metal you get and its real leather and all those things... so it will never replace it...."* (Appendices, 9.4.3, minutes 15-20) along with the sound quality *"But I... but still on headphones... you know... you have to hear the sound and experience... and I mean... it is still difficult in audio, you know right? You want to experience it..."*, *"... you will always have to go listen to our products..."* (Appendices, 9.4.3, minutes 30-35).

Consequently, the following section will address the results regarding a consumer's evaluation of the various sources of information.

## Evaluation of Alternatives

Evaluation of alternatives, as presented by Blackwell et al. (2006), is the third stage in the CDMP and refers to the consumer's evaluation of the different sources of information prior to executing a purchase. In general, ZOO stated that AR may benefit the customer in the evaluation of alternatives by providing an increased number of possibilities: *"Yeah well... At least to my knowledge I think that it can... sort of help the customers when they are, you know... looking for products to buy so..."*, *"So sort of when they are thinking ab... evaluating different products..."* (Appendices, 9.4.1, minutes 0-5), *"So that sort of gives more... more possibilities to the customer..."*, *"More possibilities to evaluate the offerings..."* (Appendices, 9.4.1, minutes 5-10). On the notion of such, B&O also proclaimed that it can use the technology of AR in order to benefit the consumer in its consideration phase: *"But once you start... start coming into the consideration phase..."*, *"We can sort of, quicker skip an AR model than..."*, *"Than we can get you to go down in a store..."*, *"So, so in consideration and then of course the whole way up to... to actually make a purchase..."* (Appendices, 9.4.3, minutes 10-15). Thus, the findings from ZOO and B&O are supported by 80 out of the 102 respondents, who suggested that AR can be applied to deliver a firmer idea of how it would be to own a product, when asked what AR can be used for (Appendices, 9.6.8).

Furthermore, B&O also stated that AR improves the customer's ability to judge a product and its suitability for their environment: *"And touching on what color... colors is right for me, what matches my interior..."* (Appendices, 9.4.3, minutes 10-15), *"So in that... or in that regard, I think that AR helps us create a better experience for our customers that..."*, *"Or people that want to see if a product, is right for them and their... home or some other place, you know"* (Appendices 9.4.3, minutes 25-30). In this regard, AR's value was highlighted by B&O for its capability of allowing consumers to visualize a product within their environment, rather than them having to rely on their imagination: *"I think that is the biggest influence... bridging the imagination gap and getting as you say, uncertainty overdone..."* (Appendices, 9.4.3, minutes 10-15).

Additionally, B&O also speculated that AR enhances the customer's certainty in relation to their purchase: *"Well so... I think that the technology... provides some... some possibilities to give the customer a better and, well... yeah, a better and more certain experience regarding their purchase..."* (Appendices, 9.4.3, minutes 20-25). In connection, when the respondents were asked to specify their sentiment towards the statement of whether they feel more confident in their purchase of a physical product when able to view it their private environment, 18 somewhat agreed, 25 agreed and 23 strongly agreed, equaling a total of 66 out of 102 respondents who portrayed some level of agreement (Appendices, 9.6.13). However, despite only 13 respondents implying some degree of disagreement to the same statement, 23 respondents specified neither agreeing nor disagreeing (Appendices, 9.6.13).

Furthermore, B&O propositioned that AR is beneficial towards encouraging consumers to visit their stores: *"I mean it... it, I think it is still the, the imagination gap, more than anything else... that you can, you can sort of convince consumers to go out and take that further step down, down to actually try out a product..."* (Appendices, 9.4.3, minutes 10-15).

After having addressed the findings in relation to the evaluation of stimuli, the following will present the findings that pertain to the consumer's actions in relation to them.

### Purchase Decision

The purchase decision, described as the fourth stage within the CDMP by Blackwell et al. (2006), entails whether the consumer acts, or refrains from acting, upon its prior considerations in relation to a choice of consumption.

ZOO's report of a low usage frequency of its AR feature (Appendices, 9.4.1) implied that many consumers refrained from taking action in relation to the zoo's AR initiative. On the contrary, the ORG of TI experienced a substantial consumption of its AR zombie game (Appendices, 9.1.9). In connection, TI asserted skepticism towards the potential of its AR initiative to independently attract more guests to the amusement park: *"... I do not think that we were of the belief that neither the zombie game, nor the zombie snap was comprised of enough potency to allure guests into the park..."*, *"Thereby, we saw it as something that could enhance the customer experience, but not as something that stand-alone could allure more visitors to the Tivoli gardens..."* (Appendices, 9.4.2, minutes 25-30). Similar findings were derived from ZOO, whereby it was suggested that the value that AR can provide serves as an addition to the existing core product, rather than being the driver of an ORG offerings: *"...I think that it can definitely... be good and provide some value..."*, *"But more..., as something extra..."*, *"Yes, an add-on, to our core product..."* (Appendices, 9.4.1, minutes 15-20). By virtue, taking the results into account, the findings from TI could correlate with the perception that AR can be highly valuable to ORG marketing objectives (Yaoyuneyong, et al., 2016). However, these findings could concurrently be in misalignment to Yaoyuneyong et al. (2016), due to the perception that AR is better suited as a complimentary piece, rather than a primary offering.

Furthermore, on the basis that 56 out of the 102 respondents specified that the ability of AR to increase confidence in their purchase is one of the technology's key strengths (Appendices, 9.6.16), it can be implied that slightly more than half of the respondents deem AR valuable in regard to their purchase decision. In line with this, B&O asserted that AR is valuable throughout the consumer's consideration phase and until the consumer makes a purchase: *"...so in consideration and then of course the whole way up to... to actually make a purchase..."* (Appendices, 9.4.3, minutes 10-15). Moreover, B&O acclaimed that the usage of its AR Experience app increases purchase intention, based on their findings that the probability of app users visiting the store is four times higher, when compared to those that did

not use the AR initiative: “*Yeah for sure...we...I mean we can directly measure that... that people using our AR app, is four more times as likely to go to a store, than a normal consumer...*” (Appendices, 9.4.3, minutes 10-15).

In addition to underlining the value of AR across the CDMP, B&O speculated that its AR initiative supports the sales process regarding expensive products more significantly than it actually drives it: “*I mean, it think it... it is probably more aided purchase, than actual purchase...*”, “*At the higher price points... But...it is relevant for the... total funnel in both cases...*” (Appendices, 9.4.3, minutes 15-20). In addition, B&O revealed skepticism towards the possibility of consumers making purchases directly through an AR app: “*I don’t think that for our products... because such a thing... you know such a big investment... I mean for the lower price-point products... I would imagine...*”, “*But I... but still on headphones... you have to hear the sound and experience... and I mean... it is still difficult in audio, you know right?*” (Appendices, 9.4.3, minutes 30-35). However, the ORG also contemplated the enablement of direct purchases through the AR app for less expensive products: “*Yeah..., totally... that’s what we are looking into.... as well with those, lower price point purchases... if that makes sense?*” (Appendices, 9.4.3, minutes 15-20).

Moving on to the final stage of the CDMP, the following section will address the findings in regard to consumer behavior, subsequent to the purchase.

### Post-purchase Evaluation

Lastly, the fifth and final stage of the CDMP is the post-purchase evaluation, which Blackwell et al. (2006), refer to as the consumer’s evaluation of the actual purchase of the offering, in relation to its prior anticipations of it.

As part of the post-purchase evaluation, ZOO asserted that they had contemplated the idea of adding an AR initiative to their Light Festival, with the aspiration of inspiring the guests to share content on around it: “*And of course it’s not so much, you know we don’t really have any AR in connection with our Light Festival, but of course we’ve looked towards having some special locations in the park during the Light Festival...*”, “*Which would... make people go ‘woow’ and say ‘this is something we want to share’ and then on top of this we have made an Instagram competition...*”, “*If you share with a specific hashtag, so it’s an easy way to...*”, “*Encourage the guest to share the moment...*” (Appendices, 9.4.1, minutes 10-15).

ZOO also posited the belief in AR’s ability to inspire guests to share their experiences among others in their networks: “*I think that AR can sort of, create some experiences that... in our case that would be more fun for our guests...*”, “*So in the way, that more guests would share their experiences from the zoo with others in their network...*” (Appendices, 9.4.1, minutes 15-20).

In line with the assertions from ZOO, TI also remarked that the consumption of its AR zombie game resulted in a sizeable amount of its consumers sharing the experience *“Yeah... and that was an initiative that many of our guests and customers thought... was quite fun I am able to say based on the large number of people who shared these zombie-photos with their networks...”*, *“So in that regard... Augmented Reality really made us able to create customer engagement by inspiring the guests and consumers to share...”* (Appendices, 9.4.2, minutes 15-20), which is also consistent with the 17,432 photos that were shared from TI’s AR zombie game initiative (Appendices, 9.1.9). In this regard, the potential of AR to produce shareability corresponds with the idea that technological advancements have paved the way for easier communication among consumers, as well as providing the opportunity to share brand attitudes (Treadgold & Reynolds, 2016). In this regard, 41 out of the 102 respondents specified the ability of AR to facilitate shareability as one the technology’s key strengths (9.6.16), whereby 16 of the respondents are male and 25 are female (Appendices, 9.6.27).

From the perspective of B&O, AR was also heralded for its ability to offer consumers the ability to distribute content by making the *“...sharing of our products easier...”* (Appendices, 9.4.3, minutes 10-15), as asserted by B&O. Furthermore, the ORG emphasized the ability of AR to enable consumers to share pictures of offerings with their important peers: *“... because that people who use our app can... can take a photo of the product... that they have viewed in the B&O AR Experience app...”*, *“And then they can send that photo to a family member, a partner and so on...”* (Appendices, 9.4.3, minutes 20-25). In line with this, TI stated that *“... it is always more believable content when it comes from ones friends than when it comes from a logo...”* (Appendices, 9.4.2, minutes 20-25), which is consistent with the proposition that WOM is a more trustworthy information source for consumers in comparison to communication conveyed directly from ORG (Wang & Yu, 2017). In addition, B&O stated that the sharing of photos is frequently carried out, and that it allows consumers to have photos shared with them from the dealers : *“I mean... a lot of people are sharing it...I don’t think I have numbers... here right now... but I mean it is... it’s, it’s a... common thing... We use it more for dealers to share with our customers... I mean we can see the numbers on how much the sharing volume is used, so...”*, *“So it’s quite good...”* (Appendices, 9.4.3, minutes 40-45).

Furthermore, ZOO, TI and B&O identified additional measures by which AR can influence the consumers subsequent to their purchases. In this regard, ZOO proposed that the technology of AR may be able to enhance the guests’ overall consumption experience along with increasing its memorability: *“I think that AR can sort of, create some experiences that... are more fun for... in our case that would be more fun for our guests, so in terms of...”*, *“Making the overall experience better, like maybe... fun like I said, and then perhaps that it could help make guest experiences more memorable...”* (Appendices, 9.4.1, minutes 15-20).

### 6.3.2 Interim Conclusion

*The results exhibited that AR can increase the interest of consumers in regard to SXO and CGO. Furthermore, the respondents assessed AR's capability of making the promotions of SXO and CGO more captivating to nearly equal degrees, while AR was deemed more effective in conveying a view of actual consumption for CGO.*

*Moreover, the majority of the respondents, in particular young adults, perceived that AR provides most value to CGO. However, the ability of AR to generate awareness for CGO was found to be ambiguous, whilst AR was deemed as effective in creating awareness for offerings of SXO that are approaching the market. Moreover, findings displayed that AR can grant consumers with innovative ways to acquire knowledge of both experience and product offerings, that this knowledge can be conveyed to consumers earlier in their CDMP, and moreover, that AR could make this process more enjoyable. Additionally, AR was found to be capable of facilitating a mutual flow of communication between SXO and consumers, and the inability of AR to enable a consumer to physically interact with offerings was considered a diminishing factor of AR's prominence, in the case of CGO, however, it was illustrated that AR delivers more opportunities for consumers to evaluate offerings under more realistic conditions. Also, it was revealed that more than half of the respondents held a positive sentiment towards feeling more confident in their purchase of a product when able to view it in their private environment, and moreover, that AR can propel consumers towards a tangible offering by increasing the incentive to purchase. It was demonstrated that AR can influence the behavior of consumers dynamically in the case of a SXO, however, it was also determined that AR is more effective as a complimentary element to a core offering, rather than an independent initiative. Similarly, for CGO, AR was deemed to be more effective as a supportive component to the sales process, rather than being a driver in itself. Furthermore, AR was convincingly identified as an efficient facilitator of shareability across SXO and CGO, whereby more female than male respondents viewed this as one of AR's strengths. AR was also found to be capable of making experiences more memorable in regard to SXO.*



## CHAPTER 7: DISCUSSION

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*This aim of this chapter is to discuss and contextualize the most relevant and prominent findings obtained during the research process, as outlined in the previous chapter, in line with the theoretical framework, with the goal of answering the main research question, as well as the sub-research questions. Furthermore, this chapter is structured on the basis of the previously identified three focal areas of AR: as performed within chapter 4; theoretical framework and chapter 6; analyses.*

### 7.1 Engaging the Consumer Through Technology

The identified discrepancy among respondents in relation to the usage of AR, could arguably be due to a substantial number of them not characterizing AR as a technology that is useful or easy to use (Venkatesh & Davis, 2000). However, in regard to the majority of respondents who did indicate having engaged with AR, the factors of usefulness and effortlessness were not deemed of significant importance towards actual usage. Moreover, the deduction that the vast quantity of respondents saw the potential of AR as being for the purpose of entertainment, could signify a shortcoming of ORG in terms of promoting the value of AR initiatives for alternative purposes, which, in turn, can be perceived as troublesome for ORG whose offerings are not entertainment-centered and who aim to achieve a competitive edge using AR.

Furthermore, the indication from respondents that the majority of them utilize AR infrequently, could lessen the chance of evoking customer engagement through interactivity (Carvalho & Fernandes, 2018), and thus, ORG in pursuit of elite market positions on the basis of their AR initiatives may be challenged by the low frequency with which AR initiatives are interacted with.

Also, the exposition unveiling that the respondents' frequency of AR usage was greatest for those who grew up in metropolitan areas, might imply that AR marketing initiatives will lead to a greater engagement, and thus return on investment, if aimed at metropolitan demographics.

Moreover, the elucidation from the respondents highlighting that their social networks do influence their engagement with technology, is in line with (Venkatesh & Davis, 2000).

In connection, the finding that educational background does not meaningfully affect the extent to which respondents are influenced, may further strengthen the proposition that a user's engagement with technology is influenced by others, regardless of the user's level of education. In spite of the sample of respondents being constituted by many young adults, it also included a considerable number of respondents of a mature age; and therefore, the finding that a low number of respondents expressed that AR is merely for young people, may be surprising. However, this could be encouraging to ORG whom aspire to facilitate engagement with consumers through AR, across a wide range of ages.

Additionally, both the ORG and the respondents deemed the potential of AR to be viewed as a gimmick as well as its potential to deviate from the identity of an ORG, as a potential limitation of the technology's ability to generate engagement between ORG and customers. The notion of such may imply that it is important that one is able to familiarize oneself with the AR offering, in order to participate and commit to it (Carvalho & Fernandes, 2018). Also, the potential of facing technological difficulty was identified as a factor that can hinder the engagement between ORG and consumers; thus, corresponding with Venkatesh & Davis (2000). In this regard, ORG aspiring to achieve market success should emphasize the implementation of AR initiatives that can be engaged with, through minimal effort.

Moreover, findings demonstrated that AR could increase the NPS for SXO, which may inherently be associated with the level of enjoyment exhibited during the engagement with the AR initiatives, on the merits of being able to enhance the level of customer WOM referrals (Carvalho & Fernandes, 2018). On that basis, it is feasible that AR can lead SXO to present the market with superior marketing initiatives, allowing for heightened stakeholder perceptions. Similarly, and in line with Carvalho and Fernandes (2018), the capability of AR to facilitate engagement by adding an additional level of contextuality to the core offering of SXO, may be seen as a value proposition that can enhance customers involvement with SXO. As an outcome, it can enhance customers trust and commitment, which strengthens the market position of the ORG providing the AR initiative. In opposition to this, however, the proposition from Carvalho and Fernandes (2018), that customer participation and customer commitment can drive customer engagement may be truer for CGO, as the respondents portrayed the greatest enthusiasm for future AR initiatives from CGO, when compared to SXO. Additionally, the respondents indicated a greater plausibility of forming a stronger brand connection with a CGO utilizing AR initiatives, which may suggest that the long-term marketing value constituted by AR is perceived to be greater for CGO and consequently, the future prosperity of AR in these ORG is deemed to be more prominent.

Furthermore, the acknowledgement from respondents pertaining to the notion that they used AR most often for entertainment purposes was in correlation with what they thought AR could be used for. It could be argued that the coherence in question stems from the low level of mental energy and difficulty required for engaging with AR for the aim of achieving entertainment, which, in turn, may support the proposition from Venkatesh and Davis (2000), that the perceived ease of use in relation to a technology influences its perceived usefulness. Additionally, entertainment may have been a prominent usage objective among the respondents due to a considerable amount of them being years or younger, and it could therefore be assumed that they might be more inclined to utilize AR for the purpose of such. In this regard, it can be said that the utilization of AR within marketing initiatives may be more likely to bring a business advantage to ORG that target younger customer segments and that provide

entertainment-related offerings. However, this may also imply that consumers are unaware of the potential usages of AR, as a result of ORG not being able to promote their offerings to customers, and thereby sparking the realization that AR can be utilized for more value bringing purposes.

Moreover, the indication from respondents that AR holds the largest value for CGO and that its most useful feature is its ability to visualize physical products within private environments, could be interpreted to mean that they find AR most useful for assessing the view of a physical product, although most of the respondents make use of AR for entertainment purposes.

In addition, AR was deemed to be highly useful to both male and female respondents in regard to its capability of granting an enhanced view of a product, implying that CGO using AR could target male and female consumers with equal success.

Nonetheless, the depiction in the findings that female respondents conceive AR to deliver more value to SXO than males, could signify that SXO are more likely to achieve market success through the utilization of AR with females as the primary target segment. On the contrary, this also suggests that if SXO direct their AR initiatives at male segments, the results could be less successful.

## 7.2 Unique Experiences

In spite of the identification that AR can deliver value to the CX of both SXO and CGO by stimulating the sense of sight, the illustration that AR is most impactful in relation to offerings that help solve a problem, correlates with the core finding of AR benefiting CGO to the greatest extent. Furthermore, the ability of AR to stimulate consumers' sense of sight is in line with the proposition of Gentile et al. (2007), which can arguably be linked to AR's primary characteristic of altering the view of a customer.

Correspondingly, the stimulation of the sense of sight was highlighted as a strength more frequently for CGO, whilst the inability of AR to allow customers to experience a physical product through the sense of touch (Gentile, et al., 2007), is a disadvantage for CGO. The limitation of such is apparent due to the nature of AR, which may imply a lesser probability of it meeting and satisfying customer needs within the marketing initiatives of CGO. In line with this, the ability of AR to evoke fun and exciting emotions in consumers of CGO and SXO, can foster a relational affect between the customers and the ORG, which might improve the chances of creating a unique CX, as supported by (Gentile, et al., 2007). Although it was acclaimed that AR is capable of evoking emotions during the CX in relation to both SXO and CGO, it could be suggested that it delivers greater value in this regard to SXO, and grants an additional layer to their offering, as the focal point of their offerings revolves around the aforementioned emotions.

Additionally, the fact that the respondents demonstrated a greater likelihood of forming a stronger connection in relation to a CGO on the basis of its utilization of AR, can be correlated with AR's aptitude to facilitate experiences in which value is vividly created by making intangible offerings tangible during

the CX. Moreover, the elucidation that male respondents are more likely to form a stronger connection in relation to CGO than females, could be based upon the general conception that males are more interested in the visualization and comprehension of tangible products. On the other hand, the greater probability of females being subject to a more intense experience by connecting to the AR offerings of SXO, may be linked to the more emotional nature of females; and thus, their higher susceptibility to respond to emotional stimuli. On the basis of such, SXO with the goal of enriching marketing initiatives through AR, could achieve more fruitful results by targeting females with offerings that contain a high level of emotion-centric stimuli, which could potentially then help them to achieve a more favorable market position.

As mentioned in the preceding section, the majority of respondents engaged with AR for entertainment purposes, which contrasts with the finding from the respondents that enjoyment was most frequently deemed to be the least important aspect of AR. Furthermore, this contrasts with the significance of the creation of experiences towards generating an affective relationship between customers and ORG, as it was found that usability was the most important aspect of an AR initiative, which is in line with the pragmatic component of an experience (Gentile, et al., 2007). Moreover, the inherent challenges associated with alluring the customer to take part in the AR experience by inspiring active participation and clarifying the customer value, may further accentuate the importance of the pragmatic component of an AR initiative in regards to the creation of a unique experience. Conversely, AR's efficacy in improving the experience between ORG and customers, proved unimpressive among the respondents, which serves to highlight the expendability of the enjoyment provided by AR and underline the importance of its pragmatic value delivered to the CX. Therefore, ORG should place great emphasis on the aspect of usability when creating experiences empowered by AR in their efforts to meet and potentially exceed the value expectancy of customers, which could enhance customer retention rates and potentially attract new ones, and thereby, enable the ORG to devise value propositions that surpass those of other ORG that do not utilize AR.

Moreover, the ability of AR to create unique experiences through empowering customers of SXO to touch and engage with organizational offerings is in line with the stance of Prahalad and Ramaswamy (2004), in regard to co-creation. In line with this, the opportunity for customers to co-create their own experience can be seen to increase the levels of involvement and satisfaction, which results in stronger value perceptions from customers, which, in turn, may generate the expected realization of value for ORG that are capable of using AR as a part of their experience proposition.

For CGO, AR's ability to facilitate unique experiences may presumably be a consequence of a collateral effect, whereby the stimulation of the cognitive component of the customer may be the most vital component of a CX from the perspective of CGO. Moreover, the finding that AR's competence in

relation to shaping the CX to accommodate for customers with different lifestyle values was more all-encompassing for SXO than for CGO, which could indicate that AR grants more flexibility to SXO with the objective of curating experiences that are in line with the lifestyle values of the customers.

Furthermore, the elucidation that AR can enhance the CX of SXO and CXO through arousing the relational component, and thus, the shareability, demonstrated great significance in regard to the influence of this component on the CX; which therefore harmonizes with the premise of (Gentile, et al., 2007). However, similarly to the widespread acknowledgement among respondents that AR can provide entertainment, the elucidation that AR can arouse the relational component was convincingly recognized by the respondents. However, this was not viewed as a strength of the technology, which may diminish the effect of the relational component on the CX, which accordingly opposes the suggestion from (Gentile, et al., 2007). As such, it can be argued that AR's ability to animate the relational component of a CX may empower both types of ORG to generate awareness, however, the outcome of it impressing customers is unlikely.

### 7.3 Consumer Decision-Making

The majority of respondents having utilized AR for entertainment purposes, portrays the apparent misconception of ORG in regard to delivering AR initiatives with alternative characteristics to consumers, which, in effect, emphasizes that ORG could face difficulty in influencing the first stage of the CDMP with contributions that are not crafted with the purpose of bringing entertainment.

However, when looking beyond AR's facilitation of entertainment, the perception of the respondents of AR's ability to make offerings more interesting and engaging, for both SXO and CGO, could signify that AR can positively affect the first stage of the CDMP.

Nevertheless, the fact that respondents considered AR most efficient in providing a view of offerings from CGO, could accentuate that AR can significantly influence the second stage of the CDMP, by delivering external stimuli that can increase the consumer's motivation, thus also delivering internal stimuli (Blackwell, et al., 2006). Given the tangible nature of products of CGO, AR may grant CGO with a greater probability of conveying their offerings to consumers than SXO, which corresponds with the majority of respondents who deemed AR most valuable to CGO, especially young adults, who may be more inclined towards using AR, on the basis of generally being more tech-savvy. As a consequence, younger people might be able to leverage the capabilities of AR during information search and evaluation of alternatives to a greater extent. In this regard, CGO pursuing competitive success through AR, may be advised to make their AR initiatives more comprehensible for the CDMPs of older age groups.

Moreover, the ambiguity of AR's effect on the first stage of the CDMP in relation to CGO may imply that it is not suitable for generating awareness across each and every ORG, and that it should be in alignment with the identity of the ORG. Hereby, ORG implementing AR within their marketing initiatives should seek to create initiatives that match their organizational propositions, as the creation of such may foster a competitive edge that is inimitable.

In addition, the capability of AR to facilitate innovative ways for consumers to obtain knowledge on both CGO and SXO, may imply that the value brought forth by AR can enhance the second stage of the CDMP, as supported by (Blackwell, et al., 2006). Furthermore, the finding that AR can lead to the retrieval of information earlier on in the CDPM, as well as AR's effect on making the process more enjoyable, can indicate that AR delivers both utilitarian and hedonic value (Javornik, 2014). In this regard, the possibility of providing consumers with information regarding the offerings of CGO and SXO earlier in the CDMP, can be identified as a strength of AR which could be useful for ORG to differentiate themselves from competitors.

The mutual flow of communication between ORG and consumers enabled by AR could potentially benefit consumers during their CDMP by allowing for an enhanced flow of information concerning the offerings of SXO. Also, it may aid consumers in their evaluation of offerings, as they may be more inclined to purchase offerings from an ORG that they can communicate with in a reciprocal manner. Thereby, AR may facilitate stronger customer relations and greater loyalty for SXO by contributing to the CDMP of their consumers, as denoted by (BCG, 2018).

Although AR can provide richer information to the consumer during their information search and evaluation, it's inability to allow consumers to physically touch products prevents the latter in receiving information in regard to the feel of the material and its quality, which could also be an important part of their evaluation, and thus contradicts (Hinsch, et al., 2020). However, those particular limitations are prevalent across all CGO utilizing AR within their marketing initiatives due to the characteristics of the technology and thus, it may diminish the possibilities of consumers, rather than influence the competition among ORG.

The findings depict that AR delivers more opportunities for consumers to evaluate offerings under more realistic conditions; therefore, it can be seen as a beneficiary aspect in the third stage of CDPM in ways that may allow consumers to make more satisfactory purchase decisions, and thus, corresponds with (Yaoyuneyong, et al., 2016). As a consequence, this may in return generate more customer loyalty and result in less complaints as well as lower return rates for ORG using AR within their marketing initiatives. By virtue, this may to an extent relieve ORG of negative WOM during the post-purchase evaluation of the CDMP, in their pursuit of long-term business prosperity.

Similarly, the majority of respondents signifying that the capabilities of AR in relation to offerings of CGO can enhance their confidence, correlates with the notion that consumers viewing products through AR are more incentivized to visit the physical stores. It may be noted that the correlation of such is in line with Blackwell et al. (2006), and it may therefore be argued that AR's effect in this regard can help CGO in moving prospects closer to their offerings by functioning as a supportive element to sales. However, although AR can increase the incentive for customers to visit stores of CGO, the findings have not displayed a direct link between the incentive to go to stores and making an actual purchase.

Furthermore, the results exhibiting that AR contributes more effectively as a complimentary component rather than a central offering to SXO, may be due to the particular experience constituting the core offering, being superior to that generated by AR. It may also be an indication that the AR initiatives provided by SXO are not carefully curated in regard to gratifying the consumers, hereby contradicting Scholz and Smith (2016), whilst supporting the notion that ORG lack proper knowledge on how consumers respond to AR (Bulearca & Tamarjan, 2010).

In addition, the efficacy of AR in generating shareability in relation to encounters with both types of ORG emphasizes its capacity to generate positive WOM during the customer's post-purchase evaluation of a purchase (Blackwell, et al., 2006). In a world in which social media, along with other technological platforms, gives rise to a widespread number of digital experiences fostering shareability, the influence of AR on cause a substantial amount of shareability pertaining both types of offerings may imply that AR's capacity to generate shareability does not distinguish AR from other digital platforms.

In line with the impact of AR on consumers during the post-purchase evaluation of their CDMP, was the finding that AR can make experiences of SXO more memorable, however, on the basis of the aforementioned, AR may not be perceived as a technology capable of delivering shareability and memorability in an innovative manner.

## CHAPTER 8: CONCLUSION

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*This chapter entails the conclusion of this thesis along with limitations and suggestions for future research.*

### 8.1 Conclusion

The technological advancements undertaken by ORG with the objective of remaining capable of satisfying the rapidly evolving consumer preferences amid the increasingly global and competitive business landscape, have led to the adoption of new technologies, such as AR. As a consequence of the advancements in technology, the usage of mobile devices is now a commonality amongst consumers, which points to the necessity for ORG to adopt AR within their marketing initiatives. Despite its prominence in the field of marketing, and the accentuation of the technology by researchers and practitioners, the effect of AR on the realm of marketing, however, has not yet been sufficiently examined. By virtue, the objective of this thesis has been to delineate the ramifications of AR in relation to its ability to facilitate ORG marketing initiatives, and therefore, understand the implications it has towards achieving a SCA. In this regard, the focal elements of AR, consisting of; empowering engagement, crafting unique experiences and influencing consumer behavior, in relation to the CDMF, have been analyzed.

In connection and by virtue of the chosen research methodology, the conducted research has been approached not with the purpose of finding a definitive answer in relation to the research question, but rather, towards a formation of new knowledge on AR in the realm of marketing. In this regard, this thesis may have cultivated alternative results if carried out in another context of research, henceforth producing findings leading to different conclusions. Hereby, an exploratory sequential research design was chosen in an effort to secure the highest possible credibility of the conducted research, which was comprised of three qualitative semi-structured interviews and a quantitative online survey containing 102 respondents. In addition, the following models were applied with the purpose of exploring AR's ability to facilitate engagement between ORG and consumers, form unique experiences and influence consumer behavior pertaining to the CDMF; CBE, The General Framework and EKB.

By means of this, the conducted research has exhibited a multitude of findings related to how AR marketing initiatives, can cultivate a SCA for ORG.

The conducted research has led to the conclusion that the appliance of AR within the marketing initiatives of ORG does not directly enable the achievement of a SCA, however the achievement of such is more probable for CGO. In line with this, it was found that the probability of ORG to obtain a SCA through AR can be diminished if consumers perceive the engagement with the AR marketing initiatives to be difficult, inadequate of fulfilling a purpose or too demanding in effort. It was also identified that it is challenging for ORG to provide continuous engagement with consumers through their AR initiatives



due to the identification that consumers, in general, interact with AR initiatives infrequently. Furthermore, it was exhibited that ORG face difficulty in conveying the value of AR beyond its ability to create entertainment, which implies that ORG do not fully comprehend how to execute it properly. It was also demonstrated that AR initiatives can harm ORG by fostering negative organizational perceptions, on the basis of being perceived as gimmicks, or as deviating from the organizational identity.

It was exhibited that the desire to engage with AR offerings of SXO in the future, was not prevalent among consumers, and that the potential of SXO to form stronger connections to consumers on the basis of the organizational AR initiatives was insignificant. Furthermore, the research outlined that male consumers assess AR initiatives to provide underwhelming value to SXO. It was also identified that the ability of AR to enhance consumers' overall experience with ORG is insignificant, and that AR's widely acknowledged propensity to facilitate shareability for both SXO and CGO, is not highly cherished. Moreover, the research outlined that AR only partially satisfies the needs of consumers of CGO during their CDMF, due to AR's inability to allow the physical touch of products, which limits its capacity to create unique experiences. Additionally, the research demonstrated no direct link between organizational AR initiatives and an increase in consumer purchases.

However, in spite of the illustration of this research that ORG are unable to directly achieve a SCA by utilizing AR to empower their marketing initiatives, the research also illuminated the fact that ORG can bring value to consumers through the use of AR, however, primarily as a supplement to their core offerings.

In this regard, it was elucidated that the technology of AR is most likely to create engagement with consumers who were raised in metropolitan areas, and that both youthful and mature consumers utilize it. It was also found that consumers are profoundly influenced by the technology and AR usage of others, and that consumers primarily engage with AR for entertainment purposes. Furthermore, it was found that AR can enhance the level of WOM in relation to both SXO and CGO, and that it can increase the NPS of SXO and therefore, enhance stakeholder perceptions. Additionally, it was identified that both male and female consumers deem AR's capability in relation to delivering an enhanced view of offerings from CGO, as its most valuable attribute. Also, it was identified that females derive more value from the AR marketing initiatives of SXO than males, and that females are more likely to perceive AR as unique. Furthermore, the research revealed stronger long-term value of the AR initiatives in regard to CGO, as consumers are more likely to desire them. The research additionally depicted that AR can evoke positive emotions during CX in relation to both SXO and CGO, whilst benefitting SXO more due to the emotion-centric nature of their offerings. It was also unveiled that AR enables SXO to add uniqueness to CX, by co-creating offerings with consumers, and that AR allows CGO to make CX more

unique by cognitively stimulating consumers. In this regard, the research additionally demonstrated that AR grants enhanced opportunities to consumers in relation to both SXO and CGO earlier in their CDMP.

As a result of the findings displayed, this research contributes knowledge to the realm of marketing in regard to uncovering that ORG are not likely to achieve a SCA within their marketing initiatives by utilizing the technology of AR. Additionally, this research has outlined the measures through which ORG can facilitate engagement between ORG and consumers, as well as how the usage of AR can enable them to create unique experiences for consumers and how ORG can better influence consumer behavior in relation to the CDMP.

Subsequently this research has demonstrated that AR can aid ORG in their objective of satisfying the progressively evolving consumer needs amid the increasingly competitive business landscape and yet, that the technology of AR presents itself as a complimentary element to the core organizational offerings, rather than a contribution that can carry ORG towards a SCA.

## **8.2 Limitations & Future Research**

Due to the sparse quantity of research conducted on AR within the field of marketing, along with the natural constraints of time and resources, a number of limitations are relevant to address.

In this regard, it appeared that a scarce quantity of research had examined AR in relation to its fulfillment of a SCA within the marketing initiatives of ORG and that no prior research had simultaneously included the components of engagement, unique experiences and the CDMP within consumer behavior, in connection to a SCA.

Moreover, as a consequence of the relative novelty of the organizational practice of AR within marketing, this research is conducted upon the prevailing and limited research on the matter. A further implication that challenged the authoring of this thesis, was that none of the utilized models directly related to the technology of AR, and its impact on marketing within ORG.

In connection, having access to more AR-specific literature and research could have fostered additional insights that could have resulted in findings of a higher certainty and quality. In line with this, the selected case ORG included within this thesis, demonstrated having limited experience with the technology of AR as a result of embarking on it only a few years previously. Also, obtaining information from ORG that develop AR apps, which may have contributed additional insights, was not possible. Therefore, having performed interviews with executives from ORG with more AR experience, as well as from those who actually develop AR apps could have led to further insights, and thus, stronger and more nuanced results. Additionally, conducting online surveys with a higher number of respondents could have generated more generalizable and credible findings.

Several areas have been identified which could be valuable in regard to future research.

In this regard, a different approach to the overall research question could have been taken. Whereas the potential of AR to foster a SCA within the organizational marketing initiatives has been examined with input from three different ORG, the research could have taken its departure from the perspective of one specific organization. Hereby, the research could have examined the potential of AR to cultivate a SCA within the marketing initiatives of ORG by undertaking an inside-out approach, thereby exploring the internal resources and capabilities of one particular organization through the Resource Based-View. In addition, it can be strongly argued that ORG with ambitions of cultivating a SCA rely on the willingness of consumers to engage in repeat purchases, hence display consumer loyalty towards offerings. Hereby, to add additional insight to the capability of AR within marketing, further research could incorporate the technology's capacity to evoke loyalty among consumers.

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