# THESIS

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#### **ABSTRACT**

Despite the rapid expansion of the tourism sector in recent years, technology is redefining this sector. Recent studies claim that the existing kind of traditional tourism, is in jeopardy due to the technological advancement. The shift from traditional to virtual tourism and customer attitude towards this change necessitates new techniques that employ cutting-edge service delivery methods. Technologies such as Virtual Reality (VR) and Augmented Reality (AR), are some of the innovative ways for the tourism sector to survive throughout these unprecedented changing times of COVID 19 pandemic. However, researchers and marketing experts have yet to identify how digital technology affects the customer experience at virtual touchpoints throughout the customer journey. The main goal of this study is to look into the impact of digital technology on customer experience in tourism. In order to design the study methodology, the researcher used the research onion model. Interviews with those who have utilized virtual technology in tourism were conducted. The study was conducted across several countries around the globe with pocket of discussion in Norway (N=25). Participants were contacted through several social media platforms and those who agreed and were willing to participate were selected for the study. Thematic analysis was undertaken after recording interviews were transcribed, codes and categories were created, and thematic analysis was performed. The study findings suggest that digital technology enhances customers experience to enable them form an experience that lasts forever. Similarly, the study provides understanding about how digital tools enhances experience, increases revenue, reaches a larger audience, eases accessibility, and helps overcome crises that impede accessibility. It can also be concluded that digital technologies are challenged with their inability to produce real experience compared to traditional tourism, a reduction in human interaction, poor internet connectivity and the unavailability of computers.

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# LIST OF ABBREVIATIONS

WTO: World Tourism Organisation

**AR:** Augmented Reality

**VR:** Virtual Reality

#### **CHAPTER ONE**

#### INTRODUCTION

# 1.1 Background

The World Tourism Organisation (WTO), the United Nations agency in charge of tourism operations, defines tourism as "a social, cultural, and economic phenomenon involving people's movement to countries or places outside their usual environment for personal or business/professional reasons. "Tourists or excursionists; residents or non-residents are referred to as visitors, and tourism refers to their activities, some of which entails tourism outgoings" (United Nations World Tourism Organization, 2008).

Tourism is one of the major sectors in the world, and its popularity has grown in recent years. Domestic and international tourism demand is closely related to income levels, and has therefore, increased in wealth as demand increased (UNCTAD 2020b). The tourism business represents for around 10.3 percent of the worldwide economy, according to the World Tourism Organisation (WTO, 2020). In 2019, the tourist industry supported around 330 million jobs and generated nearly \$9.0 trillion in revenue. The tourist business has grown at a rate of 3.5 percent for the past nine years, above world GDP growth of 2.5 percent (WTO, 2020). International tourism increased by 4.4 percent in 2015, and the industry is predicted to reach 1.8 billion visitors by 2030. (WTO, 2015).

Despite its rapid spread in recent years, the COVID 19 pandemic has a significant impact on tourism and other industry sectors. According to the UNWTO (2021a), COVID 19 threatens 100-120 million direct tourist jobs. This demands new tourist tactics. The goal of introducing a new or improved component into the tourism sector is to provide tangible and intangible benefits to tourism stakeholders and the local community, thereby improving the value of the tourism experience and the tourism sector's core competencies, and thus enhancing tourism competitiveness/or sustainability. Tourism innovation may encompass, among other things, tourism destinations, tourism products, technology, processes, organisations, and business models, skills, architecture, services, tools and/or techniques for management, marketing, communication, operation, quality assurance, and pricing (WTO, 2019).

Virtual technologies like Virtual Reality (VR) and Augmented Reality (AR) are novel ways for the tourism sector to stay open throughout this pandemic. Virtual Reality (VR) is a computergenerated 3D environment that simulates the sensations of its user's digital experience in real time (Hollebeek Clark, Andreassen, Sigurdsson, & Smith 2020). Augmented Reality (AR) is a computer-generated data visualisation approach that superimposes text, video, graphics, GPS data, and other multimedia formats on top of a real-world view acquired by a computer, phone, or other device's camera according to Rauschnabel, He, and Ro (2018). Technology helps the tourism industry, as Huang, Backman, Backman, and Chang (2016) pointed out. The introduction of these digital tools, production mechanisation, and computerisations are assisting in the resolution of some of the difficulties highlighted above, allowing businesses to provide a long-lasting client experience. Information is becoming increasingly available to the general public because of technological advancements. Technology is useful to both producers and buyers through online buying of goods and services. Aside from the tremendous advantages of technology, certain sections of the world, such as poor countries, consider it to be prohibitively expensive to employ. With the help of technological innovation, virtual excursions and destinations are now possible in these unprecedented times. Because of modern technology and innovation in the tourism sector, places that used to take several miles, hours, or days to visit now take minutes. This progress has also resulted in an increase in tourism demand due to customer satisfaction. It saves time for customers and improves feedback for a better long-term customer experience in the tourism industry (Sardak & Sardak, 2016).

These technologies contribute in generating a great customer experience, which is understandable considering that one of today's top priorities is establishing a compelling customer experience and turning it into a successful service quality plan (Abdul Khader and Madhavi, 2017). The omnipresence of information technology, the domination of brands, and the ubiquity of communication and entertainment, according to Schmitt (1999), are all part of this paradigm transition. Because of its experimental character, marketing is becoming more experiential than the traditional method (Fesenmaier and Xiang, 2017). Customers nowadays are more interested in experiences than in the functionality of products and services. For example, the results of a BBC TV study of 20,000 people, which asked respondents what they wanted to do before they died, revealed that people prefer to do new things or enjoy new experiences above possessing a commodity. See the Northern Lights, swim with dolphins, dive on the Great Barrier

Reef, fly on Concorde, whale watching, shark diving, skydiving, and walk the Great Wall of China were among their responses (Fesenmaier & Xiang, 2017). Digital technologies have made it possible for a wide range of people to visit and experience destinations across the globe at a less expensive price as compared to physically being there. However, being physically present at a tourist has an irreplaceable experience as compared to being there virtually (Sussmann & Vanhegan cited in Guttentag, 2010).

Understanding customer experience has always been a source of worry for businesses. Customers today find it more enjoyable and convenient to purchase and consume goods and services using modern technology. As a result, the customer experience shifts from physical to virtual, sensory, and digital (Digi-sensual). Mura, Tavakoli, and Pahlevan Sharif (2017) recommended that enterprises should combine sensory and digital aspects to create a genuine and lifetime client experience in their article. Some companies, such as Disney, are already using disruptive technologies to enhance their customers' experiences. These new technologies also aid the tourism industry (Huang, Backman, Backman, & Chang, 2016). According to research, environmental changes such as Covid-19 and the continual customer expectation for a longlasting service experience will boost the customer experience in the years ahead. Companies in the tourism industry also benefit from current technologies in order to survive in these changing times. As a result, tourist locations benefit from economies of scale, increased income, and improved business results (Ilic & Nikolic, 2018). To satisfy the changing environment and constant client expectations, the tourist experience provider has the capacity to expand its services using new technologies. As a result, new technologies will be critical in delivering a lifetime customer experience across the customer journey. It is also clear that the potential for new ideas and technology to be applied in the tourism sector outweighs the associated challenges. The impact of digital tools on the customer experience in experiential tourism is discussed in this study.

#### 1.2 Problem Statement

According to Liberatore and Maecci (2018), technological advancement has put the current form of traditional tourism in jeopardy. Similarly, Stamboulis and Skayannis (2003), stated that emergence and evolution of new kinds of tourism, since it shifts away from mass tourism.

According to Liberatore and Maecci (2018), this shift in tourism behavior and attitudes needs new approaches that employ creative service delivery methods. Customers' experiential involvement were highlighted by certain researches (Holbrook, 2000; Pine and Gilmore, 1999; Schmitt, 1999). Their findings focused on how customers react to items and services that provide pleasurable and emotional experiences, particularly in tourism, which is intrinsically experiential (Gretzel and Fesenmaier, 2003). In the tourism industry, providing remarkable experiences has been a managerial focus (Walls, Okumus, Wang and Kwun, 2011). The importance of understanding the client experience in virtual tourism has been recognised as critical to destination tourist planning (Agapito, Mendes and Valle, 2013; Gilmore and Pine, 2002; Gretzel and Fesenmaier, 2010; Pan and Ryan, 2009). Surprisingly, with the emergence of new technological developments allowing for more virtual experiences, the importance of technology in delivering a successful service in today's business, leading to a high brand and customer loyalty, the customer experience lacks clear definition in virtual tourism experience design, implementation, and management. As a result, researchers and marketing experts have yet to identify how digital technology affects the customer experience through virtual touchpoints throughout the customer journey. As a result, it is critical to understand the impact of technology on the customer experience throughout the tourist industry's journey, as well as how these experiences are influenced by antecedents such as the customer, brand, or surroundings, as well as the experience's end.

# 1.3.0 Research Objectives

# 1.3.1 Main research objective

The master study's main goal was to explore the impact of digital tools on customer experience in experiential tourism.

# 1.3.2 Specific Objective

- To know how digital technology creates memorable customer experience
- To know the various touchpoints in the customer's journey.

 To determine the advantages and disadvantages of using digital technology in the tourism business.

## 1.4 Research Questions

The master studies main research question is: "What role does digital technology play in delivering a memorable customer experience?"

Building on the main research question, the following sub-questions were drawn:

- How does digital technology create memorable customer experience?
- What role does technology play in the various touchpoint of the customer journey experience?
- What are some of the benefits and emerging challenges of using digital tools in experiential tourism?

# 1.5 Significance of the study.

Theoretically, this report contributes to knowledge on customer experience in experiential marketing and provides a secondary data source to other researchers with similar research interests. The study bridges the knowledge gap on the impact of digital technology on customer experience by conceptualising the customers' experiences through many vital factors, such as their interaction with the various touchpoints and the how these interactions affect their emotions in terms of making a decision. The current study contributes to our understanding of how digital technology is influencing the customer experience in each step of the customer journey thus before, during and after. It also highlights how the customer is connected to their surroundings and brands via digital technology to enhance their journey experience. Again, it shows how customers feelings, reasoning, and sensory are aroused in the journey process with the help of technology to advise their purchase choice. The study also identifies the enormous benefit of digital technologies to both the tourism industry and customers and the negative impact on the industry and customers. These benefits and challenges will help policymakers within the tourism sector, which will benefit the industry.

# 1.6 Brief methodology

A qualitative method, motivated by an interpretivist approach, gathers data given the multidisciplinary and complex nature of customer experiences in a virtual setting. To ascertain an in-depth understanding of a phenomenon, Bamberger (2000) and Rao and Woolcock (2004) postulate the qualitative method as a good approach. Owing to tourism scholars' limited research on digital technologies and customer experience, a qualitative approach is preferred to explore this new study area. Jennings (2010) also believes that a qualitative study best describes tourist behaviour than a quantitative approach. The participants of this study are people who have had a virtual tourism experience before. An in-depth interview guide was used as the tool for data collection. A phenomenology design was adopted for the study. The collected data were analysed using thematic analysis.

# 1.7 Organization of report

The remaining part of the study is organised in the following way: the next chapter gives multiple perspectives through empirical, conceptual and theoretical framework on the impact of digital technology on customer experience in order to address the established objectives.

The study methodology section explains the numerous data collection, collation, and data analysis approaches that were utilised to analyse and present this topic in the light of the objectives. The findings and analysis report are the fourth chapter, and it offers the findings acquired utilising research instruments on the subject under study. The discussion section which shows the benefits and challenges associated with the use of digital technology in tourism are the five chapter.

The summary, conclusion, and suggestions are the sixth chapter. This section summarised the findings of the study, concluded the study, and offered practical implications of the study.

#### **CHAPTER TWO**

## LITERATURE REVIEW

# 2.1 Concept of Customer Experience in Tourism

Today technological improvement is redefining tourism experience in terms of accessibility and value. Owing to this tremendous development, customers throughout their journey receive memorable experience through digital tools. Experience is considered memorable when it adds value aside its functional provision and also creates an imprint on the mind and heart of the customer (Kim et al., 2012). These experiences are very important because it has influence on the future travel decisions of a tourist (Kim et al., 2010). The tourism sector has seen improvement in terms of its global coverage due to easy accessibility through the use of digital technology as compared to the traditional tourism. In order to create an impact for customers, there is the need for new ways of making tourism experience memorable. These experiences can be improved using technology at every stage of the tourists' journey and these high technologies help create a powerful, experience for tourists (Dadwal and Hassan, 2014).

The term "customer experience" was coined in the mid-1980s to go along with mainstream consumer behaviour literature that viewed customers as rational decision-makers (Gentle et al., 2007). However, the multifaceted nature of experience makes it be considered an event that drives individuals on a personal level (Pine and Gilmore, 1998). Despite its existence in the 1980s, different authors and researchers have come up with distinct definitions to explain the concept over time (Caru and Cova, 2003). One of such definitions is Schmitt (2010), which believes that experiences are present states that customers form to contact with a product or brand on the market when the product is being consumed and the memories customers gain from experience. Customer experience, according to Khadar and Madhavi (2017), entails managing customers' interactions with a brand or company strategically to ensure a "superior customer experience," which will create positive perceptions and willingness in customers' thinking toward a product or service to achieve a long-term benefit. Customer experience is defined by how value is created and co-created during the pre-purchase, purchase, and post-purchase stages, according to Grnholdt et al. (2015).

Experience is not the sole approach to understand how people interact with things, services, environments, or cultures, according to Jennings et al. (2009). The term "experience" is "vague, neutral, and very ambiguous," according to Aho (2001), describing "all kinds of things that a person has ever gone through." The sociological and psychological perspectives are similar in that they depict the experience as a subjective and cognitive activity of an individual human being (Larsen, 2007), in which knowledge and skills are acquired through participation in or exposure to a specific event, as well as the emotions, feelings, and sensations evoked during that experience (Larsen, 2007; Ismail, 2010). From a marketing standpoint, an experience has been defined as a personal happening with strong emotional meaning achieved through the consumption of products and services (Holbrook and Hirschman, 1982). In the context of tourism, experiences have been described as a complicated construct that is separate from everyday life experiences (Cohen, 1979; MacCannell, 1973; Turner and Ash, 1975).

In tourism studies and the industry, experiences have become a key concept (Uriely, 2005). This is because tourism is based on a high level of contact between the tourism system, its people, and individual tourists (Larsen, 2007). Individual visitor experiences are produced because of these interactions (Mossberg, 2003), which occur when tourism production and consumption clash at the site of value creation (Anderson, 2007). Customers' buying habits alter with time; studies reveal that they have two separate shopping behaviours: "showrooming" (search in-store, buy online) and "webrooming" (search online, buy in stores) (Brynjolfsson et al., 2013; Rapp et al., 2015). Customer experience management goes beyond brand management, market research, promotion, and advertising for enterprises (Barnes, 2016; Accenture, 2015; Rawson, Duncan, & Jones, 2013; Teixeira et al., 2012).

The holistic definition of Godovykh and Tasci (2020), which builds on Schmitt's well-known concept, is used in this study (2010). "Experience is considered the comprehensive constructive or adverse reasoning, feeling, corporeal, and conative responses enthused by all stimuli met in the pre, during, and post phases of consumption, as sieved through situational and brand-related factors, eventually resulting in differential outcomes related to customers and brands," according to the definition. The holistic aspect of this concept is based on five factors that haven't been represented in prior definitions:

According to several researchers, it includes four essential components: affect, cognitive, sensory, and conation.

- 1. It recognises adverse to positive cognitive, affective, sensory, and conative reactions.
- 2. It recognises the stages of experience before, during, and after consumption.
- 3. It includes brand-related, customer-related, and situational factors as potential determinants of experience.
- 4. It alludes to the potential outcomes of brand and customer experiences.

It's important to remember that experience is a neutral concept (Jennings et al., 2009), ranging from low to too high in positive and negative directions (Godovykh and Tasci, 2020). Peak positive experiences may result from positive consumption situations, while peak negative experiences may result from negative consumption situations.



**Figure 1: Components of Customer Experience** 

Source: Adapted from Godovykh and Tasci (2020)

For the purpose of this study, experience is defined as the psychological impact (emotional arousal) customers derived from the interaction with external factors of a product or service (touchpoints) which they (customers) can recall the encounter and this have the potential to affect their decision making in the future. Thus, experience must trigger an emotional component of a customer in order for the customer to build a lasting bond with a product or service. Also,

the bond formed must be as a result of the interaction of the customer with the brand, with external factors such as social media, or with other customers. The interaction with these touchpoints must not be forgotten but recalled in order to influence the decisions of the customer in future decision making. This definition guides this study because it includes all of the definition by Godovykh and Tasci (2020) and also an added component of experience which cannot be found in the holistic definition by Godovykh and Tasci (2020).

# **2.2 Customer Journey**

The customer journey encompasses the customer's many levels of decision-making prior to the experience, throughout the experience, and after having an encounter with the experience. The customer experience happens at several points during the customer's journey. Each step has a purpose and influences the customer's choice to purchase a product or service. According to Lemon and Verhoef (2016), the customer's journey influences the customer's experience at different points of the trip. These stages have been divided into three categories. According to different authors or studies these stages have different names and similar meanings. Prepurchase, purchase, and post-purchase were used by Lemon and Verhoef (2016); Godovykh and Tasci (2020) used pre-consumption, while consumption, and post-consumption; and others used pre-experience, experience, and post-experience, Pre transaction, transaction, and post-transaction (Hoyer et al., 2020). According to 72 percent of firms, providing emotionally engaging client experiences along the buying cycle is a marketing trend for 2018 (Forbes, 2017).

# 2.2.1 Stages of the customer's journey

Traditionally, the literature describes the customer journey as three-staged process.

1. Pre-experiences (Before): The pre-experience stage/phase includes all aspects of the customer's engagement with their environment and the brand. It comprises locating the goods or service, identifying it, and deciding whether or not to use it (Lemon and Verhoef, 2016). This phase covers the customer's journey from the moment they realise they need to consider a product or service to address that need (Pieters, Baumgartner and

Allen 1995 cited in Lemon and Verhoef, 2016). Customers can acquire more detailed and personalised information in the pre-experience stage, compare or customise products/services more effectively, and make better selections (Marasco et al., 2018). VR is particularly successful for predicting the visitor experience during the pre-purchase stage because of the immersive and tailored interaction (Flavian et al., 2019). An Augmented Reality application, for example, could scan an art gallery and turn it into a video that could be placed on the website for potential consumers to watch and plan their visit. Customers can use AR applications to picture how their living space might appear with fresh décor – or to "try on" clothes before going to a store – or to anticipate the sensation of riding a roller coaster with a VR HMD in pre-purchase settings. In the pre-experience stage, both AR and VR significantly alter the customer experience in the hospitality setting (Hoyer et al., 2020).

- 2. Experience stage (During): This stage involves all the interactions a customer makes with a brand and its environment during the experience stage itself. This stage involves a decision-making behaviour where the customer chooses the product or service, orders it, and pays for it (Lemon and Verhoef, 2016). Hoyer et al. (2020) believe that AR and VR at this stage go beyond physical and facility payments. During the experience stage, customers are also provided with the necessary tools to obtain in-situ information or have innovative and memorable experiences that eventually result in the generation of moods, such as fun feeling (Tussyadiah et al., 2018) or involvement (Nielsen, 2016). For instance, the directly supported experience would be used by visitors of AR glasses to view digital information such as history, opinions, etc., superimposed onto the piece of art they are viewing. In addition, the art gallery might encourage visitors to scan QR codes throughout their visit to access informative YouTube videos (indirectly supported experience) (Flavian et al., 2019).
- 3. Post-experiences stage (After): This stage involves the customer's interaction with the brand and its environment after the experience. The customer exhibit behaviours related to usage and consumption after purchase engagement and service request. The aspect of the experience captured at this stage is related to the brand/product/service itself, and as such, the brand/product/service becomes a critical touchpoint (Lemon and Verhoef, 2016). According to Court et al. (2009), a loyalty loop might occur because customers are

likely to re-experience the service without starting from the pre-experience stage or begin the process again from the pre-experience stage. A directly supported post-experience would invite visitors to rate the paintings and gallery services (pictures sent by email) through an AR application. The scoring system shows superimposed on their digital tool screens. Encouraging visitors to share their opinions and photographs of their experiences on social networks would represent examples of indirectly supported post experiences. In a similar enabled after experience, the art colonnade is used to stage an encounter in which a guest could record 360-degree video of their trip then after upload unto You Tube. This post-experience might generate engagement but is not necessarily related to the experience of visiting the art gallery. The EPI Cube technology may allow guests to evaluate their experience or form idea about their experience in the after-experience stage. These actions may lead to increased loyalty to the brand (destination), intention to repurchase the product (revisit the destination) to carry out actions such as recommending the experience to others or interacting with other brand enthusiasts via social networking sites (Casalo, Flavian, and Ibanez- Sanchez, 2017).

# 2.2.2 Touchpoints in Customer's Journey

The word "touchpoints" was coined by Patrcio et al. (2011) to characterise the numerous points of connection or communication with clients. Følstad and Kvale (2018) found that several definitions of touching point exist, with some considering it moment of interaction between a customer and an organisation. Others see it as the moment of interaction between a customer and an organisation (Zomerdijk and Voss, 2011). Others believe touchpoints to be the physical location or channel via which engagement or communication occurs (Clatworthy, 2011). Ieva and Ziliani (2018, p. 446) defined touchpoints as "verbal and nonverbal incidents a person perceives and consciously relates to a given firm to underpin a role that goes beyond the channel or media used (e.g. website, chatbot, and store). Touchpoints addressed here include physical facilities, websites, printouts, self-service equipment, and customer service representatives.

Customers interact with enterprises at multiple touchpoints (touchpoints) during various stages of their decision-making (before, during, and after consumption), and the fundamental customer purchasing experience is made up of several sensory, affective, behavioural, and cognitive sub-

experiences (Brakus, Schmitt, & Zarantonello, 2009). Lemon and Verhoef (2016), for example, identified four types of touchpoints in the client journey:

- 1. Brand-Owned Touchpoints: This touchpoint relates to the tools and services offered by the company. These include advertising, company websites, customer relationship management, such as the usage of loyalty programs (De Haan et al., 2015), and any brand-controlled parts of the marketing mix (e.g., product features, packaging, service, price, convenience, and salesforce) (Lemon & Verhoef, 2016). These touchpoints are customer interactions that the firm designs and manages, and they are under its control throughout the experience (Lemon & Verhoef, 2016).
- 2. Partner-Owned Touchpoints: These are touchpoints that the store and one or more collaborating firms collaborate on to create, manage, or govern (De Haan et al., 2015; Lemon and Verhoef, 2016). The partners of the firm design and manage them (e.g. those developing its app or VR marketing tools). Marketing agencies, multi-channel distribution partners, multivendor loyalty program partners, and communication channel partners are examples of partners (Lemon and Verhoef, 2016).
- 3. Customer-Based Touchpoints are tools that firms cannot control because they are managed spontaneously by customers (e.g., word of mouth, forum and blog). For this touchpoint, the customer has absolute control over their experience. For example, the decision of a customer thinking about what to buy or pre-purchase at the pre-purchase stage is based on the customer's needs and desires and the decision on the mode of payment at the purchase stage, although partners may also play a role (Lemon and Verhoef, 2016). Customer-owned touchpoints are critical and prevalent post-purchase when individual consumption and usage occur. This kind of touchpoint also refers to customer experience, showing companies' importance in designing good customer experiences (Baxendale et al., 2015). One example of this touchpoint is instructional videos of products (De Haan et al., 2015).
- 4. Social/External Touchpoints: The social/external touchpoint refers to the use of others, such as family, friends, social media, and independent information sources (Pauwels et al., 2016). The external review platforms (e.g., TripAdvisor and Booking.com) have the power to influence customer decisions at each stage. These touchpoints recognise the critical roles of others in the customer experience. Throughout the experience, customers

are surrounded by external touchpoints (e.g., other customers, peer influences, independent information sources, and environments) that may influence the process. Through extra-role behaviour or proximity, other customers may influence customers, especially during the purchase process or for products and services for which consumption occurs at or right after purchase (Baxendale et al., 2015; Risselada et al., 2014). These effects can be substantial and comparable to or even more extensive than advertising. This touchpoint is connected to customer experience and influences through, for example, word of mouth and reviews (Baxendale et al., 2015)

Payne et al. (2017) also proposed separating personal (e.g., in-store encounters) and non-personal (e.g., chatbot) touchpoints depending on the existence (or lack) of a human component.

# 2.3 Types of Technologies Used in tourism customer experience

One of the most significant developments in tourism today is the introduction of technology, which has dramatically impacted the industry over the years. Over the years, different technological advancements have occurred within the tourism industry, but virtual reality (VR) and augmented reality (AR) is the most prominent. These two innovative developments, Virtual Reality (VR) and Augmented Reality (AR), are being referred to as Extended Reality (XR). Extended Reality (XR) is an umbrella term used to describe virtual reality and augmented reality. These two innovative technological ways shape the company-customer relationship extraordinarily. Virtual Reality and Augmented Reality appeared in the 1960s when pioneer researchers adopted 3D graphics environments (Berg and Vance, 2017).

• Virtual Reality (VR): A computer-generated 3D environment that simulates the sensations of its user's digital experience in real time (Guttentag, 2010; Pizzi et al., 2019; Hollebeek et al., 2020). Virtual reality simulations can completely engross the user (Diemer et al., 2015). Many recent breakthroughs, such as virtual reality platforms, devices, and content creation tools, have paved the way for the evolution of VR. Today's VR technology have untapped potential for mass virtual visits to actual tourism places (Pestek & Sarvan, 2021). Within the context of tourism, Becket al. (2019) defined VR as a computer-generated 3D environment that "creates a virtual environment (VE) by the provision of a synthetic or 360-degree real-life captured content with a capable non-semi or fully-immersive VR system, enabling virtual tourist experiences that stimulate the

visual sense and potentially additional other senses of the user for planning, management, marketing, information exchange, entertainment, education, accessibility or heritage preservation, either before, during or after travel". This definition of VR within tourism considered the customer's decision-making stages, which involve before, during, or after visiting the tourist site. The impact of virtual reality within tourism can be felt before the tourist visits the tourist site or at the site, or after visiting the site. The impact and role of VR in creating a symbolic experience have been studied by several researchers (Perry Hobson and Williams, 1995; Desai et al., 2014; Wei, 2019). This symbolic experience is created in the form of an online tour. VR can transmit the experience of escapism to users. VR enables users to escape from their everyday lives, stimulates their senses, and provides opportunities for virtual interaction (Guttentag, 2010).

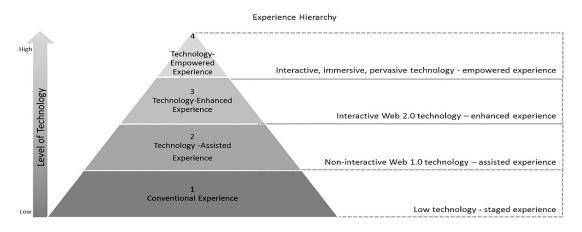
Augmented Reality (AR): Is a computer-generated data visualisation approach that superimposes text, video, graphics, GPS data, and other multimedia formats on top of a realworld view acquired by a computer, phone, or other device's camera. In other words, AR may augment and modify one's vision utilising a computer or mobile device, increasing the user's impression of reality and the surrounding world. Although the notion of Augmented Reality (AR) has been present since the 1960s, technological improvements have only allowed for forming a distinct academic field in the last two decades. AR was still a fledgling technology ten years ago. It has just lately reawakened due to significant advances in mobile technology, such as smartphones, tablets, and wearable devices (Van Krevelen and Poelman, 2010). In addition, information becomes more interactive and technologically manipulable in a more improved context. Users are put in their physical environment via augmented reality, and digital information is projected on top (Rauschnabel, He, and Ro, 2018). Virtual reality and augmented reality are employed in the tourist sector to enhance the visitor experience. Researchers such as Paulo et al. (2018) have recently investigated both technologies in the context of tourism. Diverse scholars have explored the impact of virtual reality on various tourist locations due to tourism's complex and multifaceted nature. For example, Bruno et al. (2010) looked into the impact of virtual reality in digital archaeological exhibitions. Pantano and Servidio (2011) investigated the impact of virtual reality on promoting tourism locations, whereas Huang et al. (2016) investigated it from a marketing standpoint. Smart glasses can improve museum visitors'

experiences, and theme parks can deploy marker-based AR applications (Tom Dieck et al., 2016; Jung et al., 2015).

# 2.4 Experience hierarchy

Neuhofer et al. (2014) experience typology matrix is a valuable tool for tourism practitioners to analyse and identify the types of experiences they currently provide and plan to provide. Most importantly, it enables them to identify which specific parameters need to be improved to enhance the experience further and, as a result, increase the tourist's value. On both the low and high ends of the experience continuum, a complete view and capture of experience types are required. While the best practice cases studied, represent the highest level of experience, most tourism organisations, whether hotels, destinations or airlines, still have a long way to go in terms of realising the full potential of co-creation (Binkhorst and Den Dekker, 2009) and ICT application (Buhalis and Wagner, 2013). This work creates an experience hierarchy to develop the matrix further and make it more useful for tourism theory and practice. Like any other technology adoption hierarchy, this hierarchy makes a significant theoretical contribution by depicting four overarching levels of technological experiences and corresponding increases in co-creation.

Figure 2: Experience Hierarchy



Source: Adapted from Neuhofer et al., (2014)

- 1. Conventional Experience The first level of experience, represents traditional tourism experiences, widely recognised in tourism research and practice as primarily associated with the experience economy (Pine and Gilmore, 1998). This type of experience is distinguished by the company's largely one-way creation and delivery of the experience. As a result, the customer's level of involvement in the experience's creation remains low and occurs only during the experience's limited consumption. At this level, technology adoption and integration are either non-existent or limited. As a result, experiences that do not include technology provide tourists with a fundamental value proposition. At the same time, there is still a lot of room for connecting, engaging, and co-creating the experience. Given the tourism industry's limited use of technology and co-creation of experiences (Binkhorst and Den Dekker, 2009), this experience level remains one of the most common tourism experiences in practice.
- 2. **Technology-Assisted Experience** Technology-assisted experiences need to be understood as experiences with increasing technology implementation. At this level, technologies mainly provide a facilitating role of the tourism experience in assisting the customer in accessing websites, booking systems and using mail and technologies for communication. This experience is characterised by Web 1.0 technologies, such as non-interactive websites, distribution systems, reservations systems, and many technological applications (Buhalis & Jun, 2011), which help

assist the tourism experience while not allowing tourists to interact or to co-create their experiences. However, with customer engagement and co-creation remaining relatively low, this experience has been chiefly prevalent before Web 2.0 and social media advent.

- 3. Technology-Enhanced Experience: Experiences enhanced by technology succeed in the technology-assisted experience by utilising Web 2.0 technologies to allow customers to participate in and shape the creation of their experiences actively. Customers interact with businesses via social media sites such as Facebook, Twitter, Flickr, and TripAdvisor and review sites, comments, and media to share their experiences (Tussyadiah and Fesenmaier, 2009). The level of customer involvement in the experience is high, thanks to the interactivity of Web 2.0 technologies, making the experience creates a dynamic process between the company, the tourist customer, and other consumers. Given the potential of social networking tools to enhance co-creation, levels of co-creation can be amplified across multiple spaces and between multiple parties, resulting in higher tourist value.
- 4. **Technology-Empowered Experience:** It is obvious from both the literature and the facts provided in this study that successful experiences include high degrees of technology and experience co-creation. Unlike technology-assisted and enhanced experiences, where technology plays a supporting role, the fourth level of experience is defined by a combination of both elements of technology enabling and being an integral part of the experience. At this level, technology is essential for the experience to take place. Technology is present at all stages of travel, service interactions, and touchpoints in the physical tourism destination or online space with various stakeholders, distinguishing it from other experiences. Immersive technologies are at this level, adding value to clients through high levels of interaction and co-creation options (Flavian et al., 2019).

#### 2.5 Theoretical Framework

The Stimulus-Organism-Response (SOR) model developed by Mehrabian and Russell (1974) serves as the theoretical foundation for this research. The S-O-R framework was one of the first

to study the effect of the atmosphere on behaviour, according to Choi and Kandampully (2019), and it is still widely used today. According to the theory, aroused emotions (O) influence behavioural responses (R), which are in turn influenced by environmental stimuli (S). As a result, S-O-R focuses on understanding how environmental factors influence consumer behaviour in such a way that antecedent stimuli influence the customer's emotions and attitude (organism), which in turn influences the customer's behaviour (response), such as purchasing decision (Thang and Tan, 2003). According to the framework, environmental factors impact the customer's emotions and cognitive abilities, influencing how they behave (Donovan and Rositer, 1982). These environmental factors have been identified in studies to include activities such as advertising, online brand communities, purchasing decisions, and impulse buying (Olney et al., 1991; Kim and Lennon, 2013; Huang. 2016; Islam and Rahman, 2017).

The theory consists of three elements; stimulus, organism and response. Stimulus (S) is an external factor, whereas organism (O) is internal, and a combination of both variables results in response (R) from the individual. According to Vieira (2013), a stimulus is an environmental variable (independent variable) that causes a change in an organism (mediator), leading to a response (dependent variable). The stimulus includes celebrities in tourism marketing, quality website, virtual interactivity, marketing mix through e-commerce, design, ambient and social factors (Chang, Eckman and Yan, 2011; Kim & Lennon, 2013; Islam & Rahman, 2017; Wu & Li, 2018). As indicated in the S-O-R model, an organism refers to the "internal processes and structures intervening between stimuli external to the person and the final actions, reactions or responses emitted. The intervening procedures and constructions entails perpetual, physiological, feeling, and thinking activities" (Bagozzi, 1986, p.46). From the definition, the perception a person has about the environment can be explained by their emotional response. The dimensions of pleasure, affection and dominance (PAD) were initially used in the S-O-R model to explain the perception of the environment. Organism includes a person's intentions, experiences, feelings, expectations, and attitudes (Jacoby, 2002). As used in the S-O-R model, response variables can be associated with purchasing a product, eye fixation, smiles, usage, and other factors (Jacoby, 2002).

The S-O-R model was chosen for this study for reasons. Firstly, this model has been extensively used in studying customers' behaviours, such as their emotional and cognitive response to

websites and their impact on purchase behaviour (Parboteeah et al., (2009). Secondly, considering the critical role of digital technology in influencing existing and potential customers' behaviours, the S-O-R model provides a simple and well understanding manner that makes it possible to research the impact of technology on customer experience. Wang et al. (2011) used S-O-R to study customers' emotional and cognitive responses to online stores. In contrast, Koo and Ju (2010) confirmed that purchasing intentions and emotions of consumers of online stores are known using S-O-R model. In the field of tourism, Chang et al. (2014) indicated that S-O-R is one of the most suitable models to know tourist behaviours due to the intangible nature of tourism and the emotional aspect of S-O-R helps to have insight into the tourist experience. Several studies (Cho et al., 2019; Qiu et al., 2020; Jeong et al., 2020) support the claim by Change et al. (2014) have incorporated emotions into their research on tourist behaviours and satisfaction.

For the purpose of this study, Stimulus (S) refers to the interaction with digital technology and the various touchpoints, Organism (O) refers to the internal process of the customers using the components of the customer experience, and Response (R) as used in this study is the benefit customers derives from using digital technologies and how these benefits influence behavioural decisions.

STIMULUS (S) ORGANISM (O) RESPONSE (R) **INTERACTION CUSTOMER** WITH DIGITAL **EXPERIENCE** BENEFIT **TECHNOLOGY AND** (cognitive, (accessibility, THE VARIOUS enhance affective, conative **TOUCHPOINTS** and sensory) experience)

Figure 3: Theoretical framework

Source: Mehrabian and Russel (1974) as modified for this study.

# 2.6 Conceptual framework

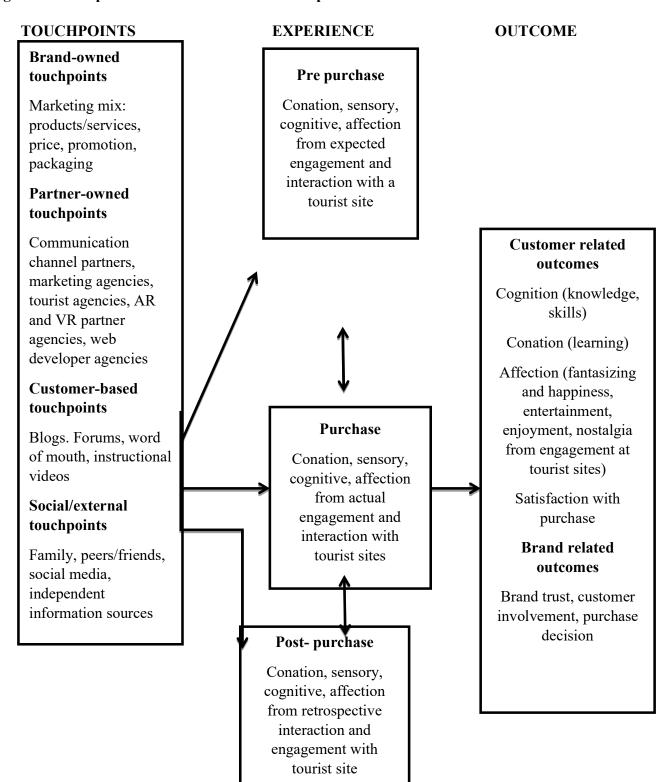
The framework ties together the different elements that influence a person's decision to buy a product, brand, or service. Four aspects of experience (affective, conative, cognitive, and sensory) can be dynamic and variable at different times of consumption, such as before, during, and after consumption. Various touchpoints can affect the experience at any level, including brand-owned, partner-owned, customer-based, and social/external, such as peers and social media. The overall experience influences customers' emotive, cognitive, sensory, and conational outcomes, as well as brand-related outcomes such as brand satisfaction, brand loyalty, and the composite concept of consumer/customer-based brand equity (Godovykh & Tasci, 2020).

The framework includes four touchpoints: brand-owned touchpoints, which focus on the marketing mix, such as product or service attributes, packaging, price, promotions, and services; brand-owned touchpoints, which focus on the marketing mix, such as product or service attributes, packaging, price, promotions, and services; and brand-owned touchpoints, which focus on the marketing mix, such as Partner-owned touchpoints, on the other hand, are focused on partner agencies such as marketing agencies, multi-channel distribution partners, communication channel partners, and so on. Third, customer-based touchpoints concentrate solely on areas where the client may influence their purchasing decisions, such as blogs, forums, word of mouth, and instructional videos. Finally, family, peers/friends, social media, and independent sources are the emphasis of social/external touchpoints.

This complete touchpoint has an impact on a customer's overall experience. Pre-purchase, during-purchase, and post-purchase experiences are all part of the whole experience. The four components of experience, cognitive, sensory, conative, and affective, are interconnected and affected by these three stages. These elements are modified at each level to provide a customer-friendly outcome.

The framework's last stage considers the impact of the touchpoints on the overall experience. There are two types of outcomes: customer-related and brand-related. The four experience components develop their outcome based on the impact of the touchpoint on them at the customer-related outcome stage. Emotions (joy, nostalgia, enjoyment, and entertainment), for example, resulted in a learning outcome, while conation resulted in knowledge and abilities. Brand trust and commitment were the results of the brand-related outcome.

Figure 4: Conceptual framework for customer experience



Source: Godovykh and Tasci (2020) modified for this study

## **CHAPTER THREE**

## **METHODOLOGY**

## 3.0 Introduction

The methods of data collection and analysis components are critical to research work. They highlight the underpinning of research epistemology and design and provide the bases and rationale for collecting the data and the appropriate tools for analysis and presenting results (Kabir, 2016; Sönmez, 2013). This chapter presents the research philosophy and study design and the methods employed to collect the data for this study. This study adopts the research concept that Saunders et al. (2019) postulated. As stated by them, the research onion concept carefully illustrates a thought through and coherent set of assumptions that guide how research should be conducted irrespective of the underlying philosophies.

These well-thought-out and consistent assumptions enable researchers to design a scientific and coherent research project which entails the entire components of research in an interconnected manner (Saunders et al., 2019). The scientific research onion concept systematically demonstrates all the phases of research a researcher must scientifically endure in developing a research strategy. When seen from an outside viewpoint, the layers of the concept (onion) describe a more elaborate stage of the research process that any researcher must undertake (Saunders et al., 2019). The research onion provides adequate progress to develop a research method. Its usefulness lies in its adaptability to any research method and can be used in various contexts (Bryman, 2012). Additions to this chapter includes data processing and analysis, and ethical considerations.

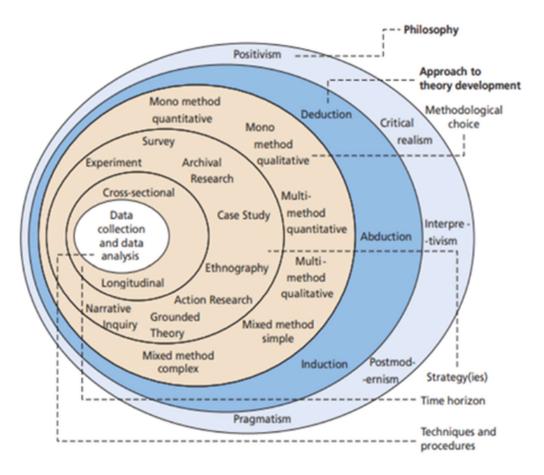


Figure 5: The research onion adapted from Sanders et al. (2009)

## 3.1 Research Philosophy

Research philosophy is a belief in the way data about a phenomenon must be collected, analysed, and used. The word ontology (the nature of reality) encompasses various philosophies of research approach (Satyam, 2011). Researchers must relate these research philosophies to specific research methodological choices (Holden & Lynch, 2004). This study is guided by the interpretivism research philosophy, which forms the basis of qualitative research (Khan, 2012; Merriam, 2009). Interpretivism was selected because the arguments advanced for this study can best be captured only through the subjective interpretation and intervention of the social world as fully understood by study participants. The study adopted this philosophy to reveal the multiple realities and varied contextual experiences with virtual and augmented reality in the tourism industry. The phenomenon is best studied in participants' natural settings (Khan, 2012; Pham, 2018; Sönmez, 2013). Studying a research phenomenon in its natural environment is key to

interpretive philosophy, acknowledging that scientists cannot avoid affecting them (Saunders et al., 2019).

# 3.2 Research Approach

Under this section of the study, the researcher used the inductive approach to conducting the study since it aligned with the interpretivism philosophy. Saunders et al. (2019) noted that the interpretive philosophy most likely informs the inductive approach. The inductive approach was pre-selected due to the study's philosophical underpinnings (interpretivism) (Bryman, 2012). The inductive approach is considered appropriate for this study because it permits the researcher to understand the nature of the problem. This allowed the researcher to make sense of the collected interview data through the content analysis performed in the study (Denzin and Lincoln, 2018). A smaller sample is deemed appropriate under this research approach. Overall, the inductive approach was considered for this study because of its connection to humanities and its emphasis on subjective interpretations (Soiferman, 2010).

## 3.3 Research Design

The study's objectives is addressed using a qualitative design (Kumar, 2011). The study's design, guided by phenomenological inquiry, focuses on allowing the participants' realities to be explored (Creswell, 2013; Kumar, 2011; Sönmez, 2013). Kumar defines a phenomenological design as explaining why and how two aspects of a phenomenon or situation are related and providing in-depth insight into that phenomenon. The qualitative design allows the researcher to hear from study participants about their experiences and journeys related to experiential tourism. Given the novelty of this field of study, participants' perspectives are critical.

A qualitative design for this study allows in-depth information from study participants in the context of experiential tourism as a relative outcome to them to be uncovered (Levin, 2006; Smith, Flowers, & Larkin, 2009). In addition, the qualitative method investigated the role of digital technologies in creating a memorable experience, the challenges and opportunities for using digital tools in the tourism sector, and the benefits and emerging challenges associated with using digital tools to experience tourism.

# 3.4 Study Area

With the nature of the work, the study was conducted in several countries across the globe, with pockets of discussions in Norway. This is necessary and forms an essential component of the study since the experience of different participants from diverse backgrounds provides a reasonable justification for exploring the role of digital technologies in experiential tourism. Also, the geographical research allows participants to provide context-specific scenarios intended to enrich the research content.

# 3.5 Research Strategy

Depending on the research objectives and questions, different research strategies are used in the research arena. Experimental surveys, case studies, action research, grounded theory, ethnography, archival research, grounded theory, and narrative inquiry are some of the research strategies used (Saunders, Lewis & Thornhill, 2019). Because of the nature of the research and the quest to answer the research question, and the study's objective, the researcher used a phenomenological research approach to inquiry in this study. Phenomenology best suits the nature of the research because the researcher is interested in exploring customers' experiences with digital technologies (experiential tourism). Phenomenology is concerned with the study of experience from the individual's perspective, 'bracketing' commonly held assumptions and perceptions. Phenomenological approaches are epistemologically built on a paradigm of personal knowledge and subjectivity, emphasizing the importance of personal perspective and interpretation. Consequently, they are used for reading subjective experience, obtaining intuition and assumption of people. The phenomenon that was investigated in the study was tourist use of virtual reality.

# 3.6 Sources of Data

In order to answer the research questions formulated in this thesis, the researcher used both primary and secondary data. Basically, data are collected by primary or secondary means. Primary source of data is the first-hand or direct information collected by the researcher for

the first time. Primary data are collected from different means such as observation, questionnaire, personal interview etc. On the other hand, secondary source of data is already produced or collected data by other researchers. This might include previous research, articles, books, journals etc. The main source of data for this study is primary data, collected from tourists with virtual tour experience. In addition, other relevant literature relating to the research topic were used to complement the primary data collected. These included peer-reviewed articles (Beck, Rainoldi, & Egger, 2019; Yung, & Khoo-Lattimore, 2019; Yung, Khoo-Lattimore, & Potter, 2021), books (Augmented Reality in Tourism, Museums and Heritage and from hype to value; Virtual Reality Tools in the Tourism Industry and their Influence on Booking Behaviour) and other materials. The data was collected from February 02, 2022 to February 28, 2022.

# 3.7 Sample and sampling technique

The importance of participant selection for the research objective is an essential criterion for the research process (Mills, Durepos & Wiebe, 2010). Therefore, choosing study participants is critical for the study. If the right participants are not selected, the study will not be credible since the findings will not be coordinated with the study objectives. Selecting participants is challenging due to intensive data collection methods of qualitative study research. Therefore, the number of research units may be minimal (Mills, Durepos & Wiebe, 2010). This limited amount of research units focusses on the researchers' rationale for choosing participants.

The total sample size for the study was pegged at 25 participants. In addition to the adequacy of methodology and instrumentation, the sampling strategy adopted also determines the quality of research. Sampling recognizes the populations the study will focus on, and factors like accessibility, time, and expanse often restrict the sample size (Cohen, Manion, & Morrison, 2007). In the case of this research, the study population consist of tourists who have ever used or are using VR and AR in tourism. The underlying reasons for selecting participants vary from the interest in the subjects to theoretical considerations. I used theoretical sampling also called purposeful sampling. The purposeful sampling basically means selecting study participants with adequate knowledge and experience whose involvement in the study will significantly contribute to the achievement of the objectives. The selection criteria used in the study was that participants must be tourists and must have

used a VR or AR in the past. Non-probability sampling technique was employed to select the participants for the study. In line with the qualitative approach, purposive sampling, specifically key informants, was used to select study participants. This enabled the development of a suitable sample for the study. The process involves identifying participants and arranging a time for interviews after giving their informed consent. The study sample consisted only of people who have received the experience of using digital technology while visiting a tourist destination. Given that there are different touchpoints concerning customer experience, this study solely dwells on the customers-based touchpoint. Thus, the independent cognitive process concerning customers' wishes or needs before acquiring product, service or brand. And, at acquiring stage, customer-based touchpoint involves customer choice of mode of acquisition of service or brand though the firm and other partners, counts in this stage. After acquiring, customers remain attached or committed based on usage hence leading to customer adding value to the service or brand acquired. For instance, a customer uploading You tube videos of a destination site after consumption or usage experience depicts customer-based touchpoint at the post acquisition stage.

Saturation is principal in qualitative research. It determines the adequacy of data from a study to form a complete understanding of the study phenomenon. During the data collection process, the researcher observed that after the 20<sup>th</sup> participant, no new information was coming up. Subsequent participants repeated information from previous interviewees. As a result, decided to stop the interview after interviewing the 25<sup>th</sup> interviewee. Hence, data was collected until saturation was reached.

# 3.8 Data collection Instrument

The data was collected through an in-depth interview (IDI), where I used predefined semistructured interview. The study used the IDI guide because it seeks to extract more detailed information or a broad understanding of the subject (Showkat & Parveen, 2017). The guides were developed based on the research questions and the study's specific objectives. In-depth interviews were preferred to focused group discussion because, the study was interested in capturing the personal experience of the tourists but not as a group phenomenon. Further, as a precaution to adhering to the COVID-19 protocols, the researcher decided on conducting phone and online interviews. This initiative was to protect myself and the study participants.

The interview guide is divided into sections. The first section focuses on the socio-demographic characteristics of the participants. The second and third sections cover questions related to digital technologies' role in creating a memorable experience in the journey process and why marketing scholars, firms, and managers understand the customer experience. Section four deals with challenges and opportunities for applying digital tools in the tourism sector. The fifth section covers how digital tools augment customer sensory interaction. The last section focuses on the benefits and emerging challenges associated with digital tools in experiencing tourism. Schedules were developed for the data collected and participants were allowed to choose the period they will be free to be interviewed. Interviews were conducted on-phone and several online platforms at the preference of the participants.

Table 1: Participants details and tourist sites visited

Tourists	Age (Sex)	Tourist site visited	Country/City
Tourist A	37 years (Female)	Edinburg Castle	Scotland
Tourist B	25 years (Male)	Bled Castle	Slovenia
Tourist C	43 years (Male)	Prague Castle	Czechia
Tourist D	37 years (Male)	Louvre Museum	Paris
Tourist E	35 years (Female)	The Sistine Chapel	Vatican
Tourist F	41 years	Slow-tv' style	Norway
Tourist G	56 years (Male)	Nordic Visitor	Scotland
Tourist H	26 years (Female)	St. Petersburg/Clearwater	Mexico
Tourist I	38 years (Female)	Visit Dubai	Dubai
Tourist J	42 years (Male)	Cape Coast Castle	Ghana

Tourist K	71 years (Female)	Whistler	Canada
Tourist L	65 years (Male)	Bled Castle	Slovenia
Tourist M	62 years (Female)	Prague Castle	Czechia
Tourist N	55 years (Male)	Louvre Museum	Paris
Tourist O	56 years	The Sistine Chapel	Vatican
Tourist P	73 years (Female)	Slow-tv' style	Norway
Tourist Q	29 years (Male)	Nordic Visitor	Scotland
Tourist R	35 years (Male)	St. Petersburg/Clearwater	Mexico
Tourist S	37 years (Female)	Visit Dubai	Dubai
Tourist T	43 years (Female)	Visit Dubai	Dubai
Tourist U	42 years (Female)	Slow-tv' style	Norway
Tourist V	40 years (Male)	Whistler	Canada
Tourist W	43 years (Male)	Cape Coast Castle	Ghana
Tourist X	43 years (Female)	Bled Castle	Slovenia
Tourist Y	27 years (Male)	St. Petersburg/Clearwater	Mexico

#### 3.9 Data Collection Procedure

The data collection procedures are divided into two parts. These include both instrument pretesting and data collection. First, the instrument was pre-tested among a group of tourists in Norway. The goal of the pre-testing was to get a feel for the instruments. Mistakes and inappropriate use of words and concepts in the instrument were corrected through this exercise. Pre-testing enabled the researcher to anticipate and adequately prepare for potential challenges during the primary fieldwork.

Following the pre-testing of the instruments, the main data collection begins. Permission was sought from participants before the interview, allowing them to choose whether to participate in the exercise. Those who agree to participate were given an informed consent form to sign as a sign of their acceptance. Oral consent was accepted for those who do not want to sign. For both instruments, the interview lasts approximately 30-45 minutes. The data collection took about a

month to complete. Given the nature of the study, participants were contacted through various social media platforms. The selection criteria were that the person must be a tourist and ever used virtual reality at a specific tourist site. Various tourist groups on social media were contacted to aid the processing of identifying tourists for the study. Arrangements were made with tourists who agreed to participate in the study. A period of two weeks was used to explain the ethical issues underling the study. Oral consent was used as participants willingness and acceptance to be part of the study.

# 3.10 Data Processing and Analysis

To answer the research question, how digital technology influence customer experience in experiential tourism? This master thesis studies how digital technology is influencing customer experience in the various touchpoints in the customer journey. The analyses of data look for how participants decision was influenced by digital technology in the customer journey. In addition, how digital technology affects their reasoning, feeling, and actions in the purchase journey. Again, the study looks for the benefits of these digital tools in experiential tourism, and how It augments customer lifetime experience in the journey process. It also looks for some of the emerging challenges associated with the use of these digital tools.

There are several ways to analyse data gathered and this part of the thesis attempted to justify and critically evaluate the methods that were chosen. Participants were expected to be informed on the roles digital technology plays in the various touchpoints of the customer journey, and how it affects the different components (cognitive, affective, sensory, and conative) of their experience to form purchase decision. The focus of the analyses is in the views of participants previous experience of virtual tourism. Thematic analysis is appropriate approach to analyse the interviews conducted with these participants with virtual tourism experience. As Braun and Clark (2019) suggest it's a flexible method for finding different patterns from data. This study considers finding different patterns from data appropriate to understand how relevant digital technology is in experiential tourism. According to Braun and Clark (2019) there are different steps to thematic analysis as recited here. The researcher familiarity with the data and initial ideas are considered pertinent. The researcher should investigate the whole data and form initial codes, which captures interesting features. The next step is to form themes from codes and gather

all relevant data for these themes, and then analyses the themes. If the themes are suitable in relation to coded excerpts, the researcher analyses the entire data set and form a thematic document. Subsequently, name the themes, define specific of the themes, and form logical relations between the themes. Lastly, finds concrete and interesting excerpts for the report and relate these to the analysis, research questions, and the literature. For this current study, the data from the interviews were categorised based on the research questions to compare and contrast the codes. A five-stage process data analysis procedure was employed. This includes transcription, organizing data, familiarizing with the data, coding and developing themes. The coding process involved the use of words or phrases to represent texts. Next, two or more codes were combined to form a significant theme. For instance, the knowledge and destination image codes were combined to form a broader theme known as cognitive. Cognitive was derived for this theme because knowledge and destination image form a mental component for the individual that lasts forever. This helped to know how digital technology influences individuals' cognitive component and form an image that lasts with them forever (experience). Finally, a codebook was developed, which served as a guidebook of all the codes in the study. The codebook contained the name of the codes, their definitions and appropriate text excerpts for the codes. The code book served as a reference guide in identifying the various codes. The description for the various codes was derived from the various interview transcripts. The description of the codes served as an inclusion and exclusion criteria which helped to put views of participants under different codes. For instance, knowledge was described as acquiring new information and facts from a tourist guide or through tourist guide manual. Table 4.1 contains excerpt from the codebook.

The findings of the study were summarised in a framework. The framework contained codes for each objective. The objectives in the study were labelled as category and were arranged in order as the specific objectives. Under each category, codes were developed. The coding process involved the use of words or phrase to represent texts. Two or more of the codes were combined to form, a major theme. For instance, the knowledge and destination image codes were combined to form a broader theme known as cognitive. Cognitive was derived for this theme because knowledge and destination image form a mental component for the individual which last for ever. This helped to know how digital technology influences individual's cognitive component to form an image that last with them for ever (experience). Every audio recording was transcribed within two days. This ensured easy remembrance of issues discussed with participants (Creswell,

2012; Sarantakos, 2005). After the transcription, there was proofreading to ensure no grammatical errors. To lessen mistakes, recorded interviews were linked with notes taken during interviews and corrected while listening to the audio recordings. Each interview was formatted with unique headings to ensure easy navigation during the reading and analysis.

After data processing, data analysis was done. Qualitative data are primarily textual and descriptive or nominal, meaning the data collected are in words and sentences (Kumar, 2011). The transcribed data was then prepared for analysis by combining all the transcripts into one Microsoft word file. Qualitative research approaches aim to fully address the 'how' and 'why' of research and fully use unstructured data collection methods to explore the topic (Creswell, 2013). Next, a thematic analysis was used to analyse the data (Braun & Clarke, 2019). The transcriptions were read and re-read to ensure familiarity with the data. First, a codebook was created. Preliminary, the codes identified with corresponding occurrences from the participants' responses. Codes were then collated and sorted to form subthemes and main themes based on their shared patterns. Where needed, themes were combined, separated, or discarded to define a pattern of shared meaning projected by a central idea (Braun & Clarke, 2019).

After, the themes were refined and defined by providing names and clear working definitions capturing the essence of each theme. Finally, descriptive narratives of the themes and analytic narratives and data extracts were applied to contextualise the analyses based on existing literature. Statements of the interviewees were also presented as quotes to substantiate responses given to questions posed during the interviews. However, a frequency table was used to present the socio-demographic characteristics of the study participants.

#### 3.11 Trustworthiness

Ensuring the quality of qualitative research is hinged mainly on the study's trustworthiness (Korstjens & Moser, 2018). According to Korstjens and Moser (2018), trustworthiness entails credibility, transferability, dependability, and confirmability.

**Credibility** is concerned with truth-value, and it is measured with strategies including triangulation. Data triangulation was the primary type adopted in the current study.

Transferability has to do with a thick description. This involves describing the experiences and behaviours of study participants and a detailed account given on the context in which the study was conducted. This ensures that an outsider's experiences and behaviours become meaningful (Korstjens & Moser, 2018). In this master thesis studies, transferability was ensured by relating the study background, indicating the sample size and sampling procedure used, and telling the socio-demographics of the study participants. The present study also ensures transferability by providing the coding frames. The fact that samples of the interview guides used in collecting data from the participants were provided as an appendix.

**Dependability and confirmability** focus on the audit trail (Korstjens & Moser, 2018). The audit trail is about transparency in describing the research processes from the beginning of a study to the development and reporting of the results. The current study ensures the audit trail by documenting the entire research process from the background to the conclusion section. Regarding analyses, coding frames were provided. The interpretations of the data were also derived from the data collected and was based on the researcher's preferences and viewpoints.

#### 3.12 Time Horizon of Research

Owing to the number of contacts between the researcher and the participants. Kumar (2011) briefly described a cross-sectional design best suited for studies designed to determine the prevalence of a phenomenon, situation, problem, attitude, or question, by taking a cross-section of the population (Kumar, 2011). Cross-sectional studies help obtain an overall 'picture' as it stands at the study time. They are 'designed to study some phenomenon through taking a cross-section of it at one time' (kumar, 2011). With a cross-sectional study, the researcher decides what they want to know about, identifies the study population, chooses a sample (if you need to), and contacts the respondents to find the required information.

# 3.13 Ethical Consideration

Ethical clearance was obtained from Nord University/NSD. Informed consent was obtained from participants before including them in the study. This was achieved by administering the informed consent process a week before data collection. Again, before each interview was conducted, the informed consent process was repeated to indicate their willingness to participate in the study.

They were made aware that they have the right to discontinue the interview process should they feel so and not react to questions or statements that will infringe upon their rights, including privacy.

Steps were also taken to ensure that data collected from the participants are kept confidential (Jones & Bamford, 2004). For instance, data obtained during the data collection process was hidden from unauthorised access, ensuring confidentiality and privacy. Also, voice recordings were locked with a password-protected computer programme called 'LockApp'. Participants were informed that notes taken will be typed, and the soft copies will be equally locked in 'LockApp'. However, the hard copies were hidden from sight by locking them in a box. All authors whose works were used in this study are duly cited to avoid plagiarism. To ensure anonymity, pseudonyms was used to represent participants' identities instead of the participants' real names and other characteristics that personally identify them.

#### **CHAPTER FOUR**

#### FINDINGS AND ANALYSIS

This chapter identified the various experiences customers derive from the use of digital technologies, their interaction with various touchpoints and the benefits and challenges of these digital technologies on customers and the tourism sector. Customers who use various digital technologies at various tourist sites acquire an affective, cognitive, and conative experience. These experiences are based on their interaction with factors within control of the firms (brandowned), those under the control of the customer (customer-owned) and other external/ social factors. The benefits of these technologies to the customer as well as the tourism industry are impressive. However, they have their own challenges faced by customers and the tourism industry. The analysis is based on the SOR model which serves as the theoretical foundation for this study.

# 4.1: Memorable experiences created by using digital technologies

The memorable experience experienced by customers in using digital technologies at tourist sites grouped under cognitive, affection and conation. These themes constitute the Organism (O) construct of the SOR model. The organism is the perpetual, physiological, feelings, and thinking activities. The cognitive, affection and conation are the internal process of the customer's experience that arouses emotions of the customer to influence their tourist decisions.

#### 4.1.1 Cognitive

Participants identified cognitive experience to have a memorable experience by using digital technology at a tourist site. Participants indicated that they acquire much knowledge about a tourist site through digital technology such as virtual reality, which helps them form a lasting and memorable experience. They further indicated how these technologies help know about a tourist site's cultural heritage and history, serve as a medium of learning, and give them prior knowledge of what to expect.

.... you see when you get the opportunity to know the things going on. So, for example, if you are informed about the history behind the place, you then get the opportunity to learn a lot from where you have been and the instances where you cannot go through all the places (36 years old tourist).

It meant a lot because I would have had to go there without prior information or knowledge about visual experience, how the place is, and sometimes you can get a good awakening. In other words, you would have just had a blind impression of how the place is because you have not seen it before, so you go there, and it is below your expectations. Still, because now I was able to see them in videos, it helps me better inform what I should be expecting should I go there personally. Moreover, for me, it is a good experience. Moreover, even before I go to those places, I have a mental picture of what I watched in the videos, and they have a lasting impression on me (37 years old tourist).

Other participants indicated the ability of virtual reality to give them the experience of the physical environment of the tourist sites, such as its architectural structure and surroundings, giving them a memorable experience that is of great importance.

Anytime I watch the videos again on YouTube, I feel so happy because I get to remember the beautiful scenery of the site (43 years old tourists)

The beautiful ancient architectural structures of the buildings and the surroundings looked clean and so natural in the video. The images of the dungeons and the door of no return also give me an impression of how it feels to be there (38 years tourist).

Although the image of the destination image looks beautiful and serene when using virtual technology. Still, an interviewee indicated that some virtual reality images do not portray the actual issues on the ground.

I remember one of the tourist sites I went to. Before embarking on the journey, I watched videos and saw pictures of the place on their website. I loved what I saw, so I decided to experience it in person. I was astonished by what I saw when I visited the place. The place was almost collapsing (buildings), and the environment was not clean (37 years old tourists)

#### 4.1.2 Affection

Affection was identified as one of the components of memorable experience identified in this study. Affection was identified by three sub-themes: excitement, happiness, and engagement or involvement. Participants indicated that virtual reality technology to view tourist sites excites them, arousing their interest in the tourist site.

.... they stimulate your interest because you want to know what follows and what more they have from one scene. So, when you see how nice the place is virtual, it kind of makes you want to have more of it, and you even have the god that even virtually, you are seeing this, then you will even get some better when you go there physically (37 years tourist).

Participants presented the urge of tourists to visit tourist sites after using VR technology.

Virtual reality technologies form memorable experiences because you become eager to visit those sites physically based on the best images seen through virtual reality. It makes you want to have more of the experience in person (36 years tourist)

I watched videos of the sites I want to visit on YouTube; most videos are so beautiful that one would wish to visit the site as soon as possible. So, YouTube enables me to picture the site in advance, and I get the urge to visit the site (43 years old tourist)

The use of virtual reality by participants made them feel happy. Participants indicated that they feel happy after using virtual reality technology to explore a tourist site because they cannot be there physically. Therefore, the VR aid them to enjoy the beautiful sceneries of those tourist sites.

There are places (tourist sites) I cannot afford to go to, but with virtual reality, I am very able to see how these places are, and I am thrilled to have this memorable experience (42 years tourist).

# A participant indicated that.

The joy of exploring nature from the comfort of my home makes me happy because I do not have to travel a long distance to experience the same happiness and joy (40 years old tourist).

Virtual reality technologies create a memorable experience with their users by involving or engaging them in the process. This involves making users feel the process and achieve their goals.

I will say so because they have videos about their place, and those videos allowed me to explore areas and their facility (37 years old tourist)

#### 4.1.3: Conation

The use of virtual reality technology puts tourists in a position where they visit the tourist site, intend to visit a tourist site, or recommend the site to others based on what they think and feel about the site. Participants indicated that virtual reality tools have made them physically eager to visit the tourist site.

When I watched the video, it was so captivating that I was eager to go and see the experience (41 years old tourist).

A participant indicated.

I still have memories of the experience I went through at the site. Virtual reality allowed me to give feedback and also refer friends (41 years old tourists)

# 4.2: Touchpoints in a customer's journey

Customers have interactions with a tourist site throughout their journey. These interactions can be before visiting the tourist site, during or after visiting the tourist site and influences the psychological state of the customer. It occurs at all stages of the customer's journey. Major themes: brand-owned touchpoints, customer-based touchpoints and social/external touchpoints, were developed from this study. These themes were developed based on the categorisation of touchpoints by Lemon and Verhoef (2016). These themes constitute the Stimulus (S) construct of the SOR model. These variables affect the customer's experience and decision making.

#### 4.2.1 Brand-owned touchpoints

The customer interacts with the brand or the tourist sites at every stage of their journey, and these interactions are under the firm's control. Four (4) sub-themes were developed under this significant theme. These sub-themes are company website, advertising, service provided at the tourist site, and their loyalty to a brand. The commonest interaction customers make with a brand is through the tourist sites' website. Most participants made it known that they go to the tourist sites' websites and learn more about the site before embarking on the journey to the tourist site.

...I look at the museums. I check on them before I travel, or you go to the country website to check nice scenes and places to visit excellent tourist sites then you choose your interest, so that is what I usually do (36 years old tourist).

... I think the last tourist site I visited was my sun's beach. First, I saw videos about them showing their facilities, the beach resort itself, the rooms, the space they had and everything, and I also chanced upon pictures on their website (37 years old tourist).

Through the interaction on the firm's websites, others indicated they could make bookings for accommodation and transportation arrangements through the firm's websites.

It was a fantastic experience right from the beginning to the end. We book all services online from the firm's website, and we are delighted with all the services (34 years old tourists).

...so, we made reservations for rooms on their website (45 years old tourist)

Also, on pricing and ticketing, a participant shared that.

I paid the entrance fee to the tourist site through their website. Information on the mode of payment was found on their website, which allowed me to pay the entrance fee before visiting the site (36 years old tourist).

The prices of the hotel rooms are there on their website, so this helps to have a fair knowledge about the prices and make reservations (40 years old tourist)

Participants indicated that they did not know much about the tourist site they visited. However, watching the site advertise its products or services on television made them interact with tourists and patronise it.

...I am attracted to a particular site via a television documentary (43 years old tourist).

The service provided by tourist sites was one of the sub-themes developed from this study. The interaction usually occurs at the experience or purchase stage, and there is a physical encounter between the customer and the firm's product or service. Participants expressed joy and happiness with the tourist guide. They experienced deeper interaction with them and saw these guides as much knowledge and memorable their journey.

The tour guide was good. Great orator. Gave accounts that made you live the events (40 years old tourist)

...the tour guide guided us throughout the castle with so much fantastic knowledge. His ability to connect with us and answer our questions was beyond expectation. He was present during the tour, with no distractions, and u could tell his passion for the information he is sharing (43 years old tourist)

Participants identified a customer's loyalty to a product or service as a form of interaction with a brand. A participant indicated visiting the same tourist sites on several occasions

This is my third visit, and it still has not disappointed me. Each time I have gone, I have had a different tour guide, and they have shared a little more information that previously did not, so I learned something new on each visit (45 years old tourist).

Some participants were attracted to the tourist site's scenery, which made them loyal to the atmosphere. As a participant indicated.

I have visited the park twice to do birdwatching (45 years old tourist)

Also, loyalty to a product is built on previous experience with the product or service. Participants indicated their gratitude for their services with a firm and would like to experience that service again.

I had a great time at the tourist site, and their services were excellent. I wish to patronise their service (47 years old tourist)

# 4.2.2 Customer-based touchpoints

The customer-based touchpoints are under the control of the customer and not influenced by the firm's brand or product. Two sub-themes were developed under this significant theme. The sub-themes were word of mouth and instructional videos of products. In this instance, word of mouth is not referrals from friends, but a form of advertising triggered by an individual experience with a product or service. Participants indicated that the words of others about a product or service influenced them to experience that product or service.

I heard people talking about this tourist site's architectural and historical nature. So I went there to have this experience (41 years old tourist).

I saw a review of this site made by people online. They shared exciting stories about the site, which encouraged me to experience what they had experienced (45 years old tourist).

Other participants had this to say about word of mouth.

My friends have been talking about this place (tourist site) to be very interesting and have a quiet and cosy environment. I would like to one day go there and have a feel of its environment (43 years old tourist).

Another word of mouth was through social media.

I saw a tweet about this place by someone on Twitter. The person described the place that made me like it and decided to go there (38 years old tourist)

A participant indicated that some words of mouth can be misleading and do not reflect the experience at the tourist sites. For example, the participant said this about Cape Castle.

I think everyone should visit the slave castle regardless of the review and ratings on Google Maps. This is a historic landmark and part of Ghana's tragic history that must not be forgotten (40 years old tourist)

Participants identified instructional videos to provide them with an interaction with a product or service they can access on their own. As indicated by participants, these videos help to properly know a service or product and how to use these products or services and are found across media platforms such as YouTube.

...YouTube is used by the site that I have a visit to display a video of the site plus a voice commentary which helps to know the services and how to go about them (43 years old tourist).

#### 4.2.3 Social/External touchpoints

The social or external touchpoints involve customers' interaction with their immediate environments, such as family and friends, social media, and other sources. The central theme was developed from three (3) sub-themes: family/friends, external review sites, and social media platforms. The role other customers play in others' experiences is influential. These influential customers could be family members or friends. Peer pressure or proximity can influence a customer's experience during the purchase stage. Participants indicated that they patronise a service because almost all their friends patronise it.

We came as a group, and I cannot be left out when they do something. I have also to be involved in having the experience they are having (44 years old tourist)

A participant identified referral from friends as the reason for patronising a service or product.

...also, a referral from sites or friends (41 years old tourist)

Review sites play a significant role in a customer's journey. It is primarily influential at the prepurchase and post-purchase stages of the customer's journey. Review sites entail a description of experiences by customers from different tourist sites. Customers engage with these sites before engaging on their journey to make good choices and have a fair knowledge of what they are to expect on their journey. Participants indicated that they visit review sites to read more about other tourist sites and their ratings before choosing where to go. Before I go to a place, I look at the place's rating and what people are saying about the place at TripAdvisor.com or other review websites before I go there. I do that because I want to know what to expect (43 years old tourist).

...I was amazed by the information I had about the place on a review site. I knew about the nature of the buildings had an idea about the tourist guides and the surrounding environment before going to the place (37 years old tourist)

Other review sites helped customers book transportation and accommodations, and participants identified this as helpful in making their journey to the site destination stress-free.

I had a great experience with travel triangle after reviewing their customer's reviews on their website. Starting from packages, stay, sightseeing, all was just an incredible and smooth experience. Convenient and within budget. I would like to have trips again with this agency (42 years old).

I had a lovely trip. Excellent suggestion and flexibility while planning a trip and selecting hotels with a travel agency after reading reviews from their website and patronising their services (37 years old tourist).

Aside from the positive aspects of review sites influencing participants' decision to visit a tourist site, some participants also indicated how review sites discouraged them from visiting some tourist sites.

I have always wanted to visit the Boti falls in the Eastern Region. I read about people talking about the security issue there, and the distance to the site is far without any means of transport. I decided to instead go to Kintampo waterfalls (40 years old tourist)

On TripAdvisor, I read about how there is no wildlife at Kakum National Park and having a lot of mice and their droppings scattered around the sleeping area. I am afraid of mice (laughs). So, I don't think I will go there (36 years old respondent).

Aside from review sites seen as a place to help tourists make choices, participants see them as more authentic than a firms' website. This is because reviews are from individual customers who share their thoughts about a product or service that they have personally experienced. Therefore, there is no need to exaggerate false information on tourist sites to attract customers.

The review sites are beneficial in making a good choice because you can go through several individual reviews of customers who have had a memorable experience of a place. This helps some company websites exaggerate their sites (43 years old tourists).

Participants identified social media platforms as a way they interact with a brand or service, influencing their purchasing decision making. The use of social media platforms greatly influenced customers in making decisions about a tourist site. Customers share their experiences on various social media platforms like Facebook and Instagram. This influences other customers' decision making regarding that product or service.

My first visit to Kakum National Park was through a colleague. He shared pictures of himself on the canopy on his Instagram page. After that, I admired the scenery and adventure and decided to feel this experience by myself by going there (35 years old tourist).

On one of the many Facebook pages I joined, there was a discussion on Ghana's best tourist sites and hotels. From the discussions, people shared pictures of places they had visited and provided a brief description of the experience. This encounter influenced me to visit one of those tourist sites (36 years old).

#### 4.3 Benefits and Challenges Associated with using digital technology

# 4.3.1 Benefits associated with using digital technology

The use of digital technology in tourism has tremendous benefits for both customers and the tourist industry. This study developed two main themes on the benefit of digital technology on tourism. These themes were customer-based benefits and industry-based benefits.

#### 4.3.1.1 Customer-based benefit

The introduction of digital technology in the tourism sector has been of great essence to customers. The benefit customers derive from the use of digital technologies within the tourism industry leads to increase access of customers to tourist sites, and enhancement of their experience. These two themes were developed based on the response (R) construct of the SOR

model. This construct is made up of how the customer react based on the influence of the Stimulus (S) and Organism (O) (Chang, Echman & Yan, 2011). The response (R) in this study looks at the benefit customers derives from interacting with external factors based on their internal processes and how these benefits influences customers behavioural decisions.

All participants identified increased accessibility as the benefit they derive from virtual reality. In addition, participants indicated that the introduction of digital technologies in the tourism sector has helped reduce the stress they encountered in getting access to a tourist site. The stress of travelling to a tourist destination to arrange before the actual tourist visit day and the cost of travelling.

I will say so because though I am not that old, I remember in our early days in school, if we had to visit a place, our teacher would have to make arrangements and will travel to that place first to see what was there and even the time and everything before the actual day that we will travel but because of technology today, that extra expenditure to me is no more necessary because we can have access to that information which otherwise would have to travel to get before we go there, so I think technology has been very impactful (37 years old tourist).

That is nice because you can access the place without going through a lot of stress (36 years old tourist)

A participant indicated that accessibility has helped increase patronage of tourist sites by the youth.

I will say it is positively promoting tourism among the youth. Back in the day, one only gets a chance to see tourist sites with the help of their parents. Nevertheless, now technology has made it easier for the youth. So, technology has promoted tourism among the youth (43 years old tourists).

Another benefit of using digital technology is that customers, as indicated by participants, enhance the experience. Participants believed that using digital technology such as virtual reality gives its own experience, and physically going to the site after using VR also presents its own experience.

...it allows us to have experience before experience, so it is two in one. We enjoy double, and it has been beneficial, and I will also say that even for those who are unable to the ground because of some time constraints or limitations, indirectly, they can access the facilities via the virtual medium, and it is a good thing (37 years old tourist).

A Participant indicated that, enhancing their experience makes them become loyalty to those brands.

...if I go to a tourist site and I the experience I have there is more than what I experience ion other locations, I would mostly like to come there and experience it again. I would not like to have a different service from different place (35 years tourist).

# 4.3.1.2 Industry-based benefits

The tourism industry also feels the benefit of digital technology; with the help of digital technology; the tourist industry can reach a larger audience, market its product at a reasonable and cheaper price, increase its revenue, and overcome difficulties associated with accessibility by customers. From this study, participants indicated that the tourism industry now can reach a larger audience than it used to do with traditional tourism. In addition, despite the geographical location, customers can have access to tourist sites virtually without being there physically.

It will increase the customer base and easy access because of the internet (41 years old tourists).

Also, the tourism industry, as indicated by participants, can market their products through social media to reach a larger audience at a convenient and lower cost compared to traditional print media such as newsletters and magazines, which comes with a higher cost.

I think it has helped them in terms of the market. Because most of the things, if I remember you want to see about most of the places, are in magazines, print media, advertisement and stuff but now social media is vast and, in our generation, we spend so much time on the internet and online so for them, it has been an easy way of reaching out to potential customers at a very convenient and reduced or cheaper cost so it would be beneficial to them (37 years old tourist)

Other participants believed that tourist industries benefit from virtual reality through revenue creation. Thus, digital technologies help increase the revenue of tourist sites.

...they are investing in it (digital technologies) to ensure that it will work as interactions to drive their business and objectives and maximise their profits (37 years old tourist).

The use of digital technologies by tourist sites has helped them overcome challenges associated with accessibility. For example, participants indicated that with the help of virtual reality, the tourism industry was still able to reach its audience during the Covid 19 pandemic, which made travelling to tourist sites difficult and placed much service provision industry on the brink of collapse.

Yeah, I think so because, during this covid time, I realised that there were tourist sites organised virtually where you sit at your home. You watch maybe Israel and everything ongoing and pay a token. So, hence, yeah, I think virtually, covid has also helped them to reach more people who cannot travel, and it has made it easier for people who cannot be able to travel to have a feel of things they could never have been able to go on-site to see. So, the industry has been creative, especially this covid time. They have utilised the opportunity to reach more and draw attention (36 years old tourist).

#### 4.3.2 Challenges associated with using digital technology

The use of digital technologies in the tourism sector has its challenges, either a challenge to the industry or a challenge for the customers. This study identified poor internet accessibility and computer accessibility, reduced human interaction, and limited enhanced experience as the challenges of using digital technology at tourist sites.

Participants identified that the poor nature of internet connectivity in certain places would hinder digital technologies since there are online based. And also, the cost of using the internet will deter some of them from accessing it.

Access to the internet is a significant challenge to the world that does not have an internet connection or poor network. Also, the cost aspect, some cannot afford to buy internet or Wi-Fi, so they have been left out (43 years old tourist)

A participant indicated that the inability of others to have access to computers would also serve as a challenge to use the online tourism experience.

...people who do not have access to a computer can access such facilities (online tourism) (41 years old tourist)

The inability to interact with humans was seen to be a challenge that will result from the use of continuous use of digital technology. Individuals will be comfortable with virtual tourism more than physically coming to the tourist sites for a tourism experience.

What I may say is that if it is so possible that if this virtual experience becomes so much accepted, we will be losing out on meeting new people in person and those interactions that we have when we are on the ground (37 years old tourist)

A participant expressed the level of experience from virtual reality tourism as not the same as the experience of being at the site in person or physically.

So, because of that, we may find these virtual experiences credible or alternative, but at the same time, I do not think they will be a perfect substitute for the experience on the ground (37 years old tourist).

Figure 6 Coding and Thematic Framework

CATEGORY 1: Memorable experiences created by using digital technologies

- CODE: Cognitive
  - Knowledge
  - Destination image
- CODE: Affection
  - happiness
  - excitement
  - engagement/involv ement
- CODE: Conation Action to act
- .

Themes/Concepts

**OBJECTIVES**: The study is to investigate the impact of digital tools on customer experience in experiential tourism. The research explored several interrelated categories which are: Category 1) the role digital technology plays in creating a memorable customer experience. Category 2) the various touchpoints in a customer's journey. Category 3) benefits and challenges associated with using digital technology

# CATEGORY 2: customer touchpoints

- CODE: Brand-owned touchpoint
  - Websites
  - Advertising
  - Services
  - loyalty
- **CODE:** Customer-based touchpoints
  - Word of mouth
  - Instructional videos
- CODE: Social/External touchpoints
  - Family/friends
  - Social media
  - Review sites

# CATEGORY 3: benefits and challenges associated with digital technology

- **4** Customer-based benefits
  - Accessibility
  - Enhanced experience
- Industry-based benefits
  - Larger audience
  - Increase revenue
  - Overcome difficulties of accessibility
- Challenges
  - Reduce human interaction
  - Limited enhance experience
  - Internet and computer inaccessibility

Table 2: Excerpt from the study's codebook.

Codes	Description	Text example
Knowledge	Knowledge is applied to acquiring new information and facts about a tourist site. It includes all information told by a tourist guide or read from a tourist guide manual.	When you get the opportunity to know the things going on, you see. So, for example, if you are informed on the history behind the place, you then get the opportunity to learn a lot from where you have been and
		the instances where you cannot go through all the places
Destination image	Destination image refers to the physical environment of the tourist sites: the architectural makeup, surroundings and other environmental conditions.	The beautiful ancient architectural structures of the buildings and the surroundings looked clean and so natural in the video. The images of the dungeons and the door of no return also give me an impression of how it feels to be there
Word of mouth	Word of mouth includes information on a tourist site by an individual on a social media platform and friends.  However, it does not include recommendations from friends.	I saw a tweet about this place by someone on Twitter. The person described the place that made me like it and decided to go there
Review sites		Before I go to a place, I look at the place's rating and what people are saying about the place at TripAdvisor.com or other review websites before I go there. I do that because I want to know what to expect

	social media platforms.	
Websites	tourist agencies or under the control of tourist sites where users get information about a particular website.	I think the last tourist site I visited was my sun's beach. First, I saw videos about them showing their facilities, the beach resort itself, the rooms, the space they had and everything, and I also chanced upon pictures on their website

#### **CHAPTER FIVE**

#### **DISCUSSION**

#### 5.0 Introduction

This section presents information on the discussion of the study results compared to other studies on digital technology in the experiential tourism experience. The study's main objective was to investigate the impact of digital tools on customer experience in experiential tourism. The role of digital technology in memorable customer experience, the various touchpoints in a customer's journey, and the benefits and challenges of digital technologies in the tourism sector were explored using the SOR Model. This study provides insights about digital technology and the various touchpoints as Stimulus (S), its psychological impact (Organism), and impact of the technology on customers behavioural decisions (Response).

# 5.1 How does digital technology create a memorable experience?

Digital technology creates memorable experiences among customers. Customer memorable experiences are the positive interactions that the customer remembers or recalls after using digital technologies. The interactions make a customer form a bond; cognitively, affectively or conatively. As indicated in the SOR model, Organism are formed after an interaction with an external environmental factor (Mehrabian &Russell, 1974). The level of experience and the kind of experience varies from customer to customer. The experience customers derive from digital technology impacts different components of their experience. From the findings of this study, the customers had memorable experiences based on their cognitive, affective and conative responses. These responses have been identified by Godovykh and Tasci (2020) as part of the four components of the experience. And also, these components form the Organism (O) construct of the SOR model. The Organism are the psychological factors that a customer derives from their interaction with digital technologies (Jacoby, 2002).

For cognitive experience, it was based on the knowledge and destination image of the tourist site. The knowledge gained from tourist sites by customers impacts their cognitive experience. The vast knowledge in terms of the historical nature of the tourist site forms a lasting memory for customers since they will never forget the history of the place. The knowledge gained from

tourist sites makes customers form a bond with the place, and this bond last forever in their memories anytime they recollect events of the tourist site. Also, the destination's image forms a mental picture within a customer which influences their cognitive experience. Images such as the architectural structure of the tourist site and its serene and beautiful environment form a lasting and memorable experience for customers. Tasci and Gartner (2007) identified that the destination image is a cognitive component and most concise, tangible and explicit and impacts decision-making even at the pre-purchase stage due to pre-visit images. In line with this study's findings, destination image has been identified in other studies to positively influence memorable tourism experiences (Kim & Ritchie, 2014; Kim, 2018; Zhang, 2018; Rasoolimanesh et al., 2021). Consistent with this study, Güzel (2014) also found a hotel's physical properties to influence the customer's experience.

From the findings of this study, customers experience memorable affective experiences throughout their journey when using digital technologies. The memorable practical experience was based on the happiness, excitement, and involvement or engagement customers derived from digital technology. The pleasure customers derive from their engagement or involvement with digital technology such as virtual reality gives them a feeling of happiness which arouses their innermost feelings and forms a memorable experience that will be with them for a very long time. These affective experiences are derived from digital technology by customer expectations being met by the experience. Therefore, tourism seeks hedonic happiness experiences (Bimonte & Faralla, 2014; Chen & Li, 2018). Similarly, Pai et al. (2020) found that intelligent technologies used in the tourism industry improve tourists' travel experiences, and these travel experiences positively impact tourists' happiness. Furthermore, customer engagement or involvement has been found to positively affect the customers' memorable experience (Seyfi, Hall & Rasoolimanesh, 2020; Rasoolimanesh et al., 2021), which is consistent with the findings of this study. In addition, the degree of involvement has a positive effect on the level of memorable experience (Chen & Rahman, 2018).

As found in this study, the conative response results from digital technology give customers a memorable experience. Due to digital technology, the customer experiences a high intent to take action based on the memory formed. For example, the action can be an intention to visit a tourist site after virtually being exposed to the site or visiting the site. This intention or action forms a

memory for the customer over a while. As Prayag (2009) observed, the intention or action is influenced by the customer's cognitive and affective response, which positively affects the customer's memorable experience.

# 5.2 What is the role of the technology on the various touchpoints and customers' journeys?

Customers, through their journey, interact with several touchpoints. This touchpoint interaction varies from customer to customer and at different stages. These stages are the before the experience, during the experience and after the experience. The Stimulus (S) in the SOR model includes environmental variables that causes change in an organism (Viera, 2013). According to Chang, Eckman and Yan, (2011); Kim and Lennon, (2013); Islam and Rahman, (2017); Wu and Li, (2018), the stimulus includes quality websites, marketing mix, social factors, ambient, and other external factors. In line, this study categorised these factors into touchpoints based on the categorisation by Lemon and Verhoef (2016). The categorisations are, brand-owned touchpoints, customer-based touchpoints, and social or external touchpoints. The stimulus construct consists of the various touchpoints as found in this study. Customers interaction with these touchpoints affect (Stimulus) affect their emotional arousal (Organism) (Viera, 2013).

From this study, brand-owned touchpoints were associated with a customer's interaction with a brand. The various touchpoints identified under this categorisation in the current study were the company's website, advertising, the services provided and the customer's loyalty to the services or product. These touchpoints are under the firm's control (Lemon & Verhoef, 2016) and allow the customer to interact with its product or services on its website or in advertisements. The interaction with the website and advertisement occurs at the pre-purchase stage. The services mostly are the experience and encounter with the service, such as personal interaction with workers of the firm. Similar to this finding, De Haan et al. (2015) found the company's website, advertising and loyalty programmes as some of the touchpoint's customers interact with a brand. Lemon and Verhoef (2016) also identified the marketing mix such as services as part of the touchpoint that makes customers interact with a brand.

The study also identified the various touchpoints under the customer's control and out of reach of the firm's influence as customer-based touchpoints. As found in the study, these touchpoints include word of mouth and instructional videos. Word of mouth is based on the experience of others being shared. It is known to contribute significantly to the purchasing decision making of customers (Litvin et al., 2018). Consistent with this study, word of mouth (both traditional and electronic) has been a great touchpoint on which customers interact and make their purchasing decisions to have a memorable experience (Rivera, Semrad & Croes, 2015; Rasoolimanesh et al., 2021). In addition, de Haan et al. (2015) observed that instructional videos of a service or a product are a form of touchpoint customers interact with, consistent with this study's findings.

From the study, other touchpoints a customer interacts with are social or external touchpoints. These touchpoints interact with family/friends, social media and online review platforms. Consistent with these findings, Pauwels et al. (2016) made a similar observation. These various touchpoints influence the customer's decision making. Consistently, Risselada et al. (2014); Baxendale et al. (2015) identified the impact of online review as a touchpoint in a customer's journey and the influence of peers throughout the journey.

# 5.3 What are the benefits and challenges associated with digital technology in tourism?

# 5.3.1 Benefit of digital technology in tourism

The impact of digital technology in the tourism industry cannot be overlooked. These advances in digital technology in the tourism sector have been identified in this study to benefit both the customer and the industry differently. Most studies have concentrated the Response component of the SOR model on behavioural aspects of the customer (Jacoby, 2002) in terms of making decisions which can be accepted or rejected (Chang, Echman and Yan, 2011). Within the context of this study, the response (R) construct looked at the benefit of the digital technology on the customer and how the benefit affects behavioural intentions. From this study, the benefit customers derive from using digital technology is its ability to ease accessibility to tourist sites which influences customers behavioural component of patronage, usage or intention to use. Like these findings, digital technologies such as virtual reality have been identified by researchers to help increase customers' access to tourist sites and objects (Sundstedt et al., 2004; Tang, 2007; Guttentag, 2010). Also, the use digital technology by customers as found in this study helps enhances customer experience by influencing their behavioural component through brand loyalty and satisfaction.

As identified in this current, the benefit of digital technology to the tourism industry has led to an increase in revenue, an increased customer base, and the ability to overcome obstacles due to pandemics. Through the use of Virtual reality and other digital technologies in the tourist industry, the tourist industry can market their product to reach a large number of people at a convenient and cheaper cost. Digital technologies have helped the tourist industry share their advertisement on social media and also make it easy for customers to access tourist sites virtually from wherever they are. This creative nature has led to increased revenue since there is an increase in customer base due to the broader reach of customers and operation of traditional and virtual tourism, which all come with fees to be paid by its users. The use of digital technologies by the tourism industry as a marketing tool to increase revenue and reach a broader customer base has been studied by several researchers (Buhalis & Law, 2008; Wan et al., 2007; Guttentag, 2020).

Additionally, virtual reality technology used in the tourism industry can overcome obstacles associated with the inability of customers to visit tourist sites. For instance, the COVID 19 pandemic restricted individuals from travelling, affecting the number of visitors tourist sites receive in a year and their revenue. Virtual reality technologies were able to eliminate the threat of collapse of tourist sites posed by this pandemic. Guha (2020) stated that VR could prevent the total suspension of tourist sites' activities during a crisis. For instance, virtual reality initiatives were undertaken by tourist destinations such as Vatican Museums (Vatican News, 2020), the "Experience Singapore now, visit later initiative" (Singapore Tourism Board, 2020), and the "Explore Egypt from Home" initiative (Daily News Egypt, 2020) to still keep tourist sites in operation during the pandemic.

# 5.3.2 Challenges associated with the use of digital technology in tourism

The study identified internet connectivity and inaccessibility to computers, reduced human interaction, and limited experience enhancement as the challenges associated with digital technology in the tourism sector. Due to the online nature of virtual technologies that use internet connectivity, most tourists cannot access this service because of their location, which impedes their access to a good internet connection. Customers might be willing to use the technology but cannot access the virtual website due to an internet connection. Virtual technologies are seen to

limit the human interaction at tourist sites, and the experience customers experience as they interact with the tourist sites' environment, such as smell, exposure to sunlight or feeling of breeze. Virtual reality takes away these experiences because it provides a natural image of tourist sites on a digital platform. As Paquet and Viktor (2005) put it, "people want to see reality, not virtually". Customers' experience of being physically present at a tourist site was irreplaceable (Sussmann & Vanhegan, 2000, cited in Guttentag, 2010).

# **5.3.3 Chapter Summary**

The chapter focused on the findings and analysis of results from various interviews conducted for the study. Digital technologies used in tourist sites were seen to provide memorial experiences. Customers had cognitive, affective and conative experiences by using digital technologies. The cognitive experience was based on knowledge and destination images. The affective experience was based on their happiness, engagement and excitement. The conative experience was based on the feeling to act. These memorable experiences are achieved through the interaction with various touchpoints from customer-based, external or social and brand-based touchpoints. The interaction can be through websites, social media, word of mouth, and review sites. Digital technologies benefited both customers and the tourist industry greatly, but they have challenges to overcome. The benefit derived buy customers influences their behavioural decision making.

#### **CHAPTER SIX**

# SUMMARY, CONCLUSION AND IMPLICATIONS

#### 6.0 Introduction

The present study investigated the impact of digital tools on customer experience in experiential tourism. Specifically, the study aimed to (a) know the role digital technology plays in creating a memorable customer experience, (b) know the various touchpoints in the customer's journey, and (c) identify the benefits and challenges associated with the usage of digital technology in the tourism industry.

The data used for this study was collected through in-depth interviews conducted among tourists. The interviews were transcribed and coded, and themes were formed. Thematic analysis was used. The highlights of the summary of critical findings, conclusion and recommendations are presented in this chapter.

# 6.1 Summary of key findings

# 6.1.1 Role of digital technology in a memorable customer experience

This study found digital technology to play a role in the cognitive, affective and conation response of a customer's memorable experience. The cognitive experience formed by customers was based on the knowledge customers gain from an encounter with a digital tool. Also, the destination image was found to form a mental picture that influences the customer's memorable experience. The affective response of the customer, which forms a memorable experience with using digital technology, was based on the customers' happiness derived from using a digital tool, their involvement or engagement with its usage, and how excited they are using the device. Also, the conative response of customer usage of digital technology was the ability of the device to have an impact on the intention of a customer to act.

# 6.1.2 Various touchpoints in a customer's journey

This study identified three categories of touchpoints: brand-owned touchpoints, customer-based touchpoints, and social or external touchpoints. The brand owned touchpoints were made up of the firm's website, advertisement, services and customer loyalty—the customer-based touchpoint comprised of word of mouth and instructional videos, as found in this study. Finally, social or external touchpoints found in this study were family/friends, social media, and review platforms.

# 6.1.3 Benefits and challenges associated with using digital technology

#### **6.1.3.1** Benefits

From the study, digital technology was beneficial to customers by enhancing the customer experience and making it easy for customers to access tourist sites. These benefits were found in the study to influence the behavioural components of the customer in terms of patronizing a tourist site or intention to patronize it, brand loyalty, and satisfaction.

Also, the introduction of digital technology in the tourism industry has helped tourism industries increase revenue, reach a larger audience, and overcome crises affecting accessibility, such as COVID 19. The writer is of the view that digital technology will continue to benefit the tourism sector post pandemics. Though it may also serve as a demarketing tool to limit physical access to certain tourist destinations. For instance, for the purpose of heritage preservation.

#### 6.1.3.2 Challenges

Findings from this study identified some challenges associated with digital technology in the tourism industry. Challenges such as poor internet connectivity and lack of computers, reduction in human interaction, and the inability to have experience as in traditional tourism were identified in the study.

#### 6.2 Conclusion

The study incorporated the SOR model in the study to find how digital technology impacts the customers' experience. The interaction of the customer with the digital technologies or the various touchpoints (S) influenced the customers' internal process which trigger their emotional

arousal (O) and this affect how their decision making (R). This study use of the SOR model redefined the Response (R) component by not focusing directly on behavioural intention of the customer as used in most studies. The response construct in this study focused on the benefit of customers derive from digital technologies and how this benefit influences their behavioural decisions. Based on the study's findings, digital technology makes customers form a memorable experience based on their cognitive, affective and conation responses. These responses result from digital technology's happiness, knowledge, excitement, involvement, or engagement. Also, it can be concluded that the various touchpoints in a customer's journey are brand owned, customer-based, and social/external touchpoints. These touchpoints include websites, advertisements, word of mouth, review platforms, family or friends, and services. Digital technology is beneficial to both the customer and the tourism industry. It enhances the experience, increases revenue, reaches a larger audience, eases accessibility, and helps overcome crises that impede accessibility. It can also be concluded that digital technologies are challenged with their inability to produce real experience compared to traditional tourism, a reduction in human interaction, poor internet connectivity and the unavailability of computers.

#### 6.3 Implications

The findings of the study have implications for the tourism industry. These implications are indicated below.

- 1. Managers and marketers should regard digital technologies as a supporting tool contributing to customer experience but not the main content of tourist sites or attraction experiences.
- 2. There is a need for integrated promotion and communication with customers to understand the experiences derived from digital technology and fully benefit from the added value digital technologies give to customers.
- 3. Tourist sites should invest in digital technologies that can be accessed at the tourist sites in person but not only those found online or on their website to allow all customers to experience digital tools by overcoming the challenge of poor internet connectivity.
- 4. To overcome the challenge of human interaction, digital technologies such as virtual reality, which customers access remotely, should be enriched to allow customers to

- participate and interact with other customers on the same medium or physically present at the tourist site in real-time.
- 5. As one of the findings of the study is the ability of digital technology to overcome difficulties in accessibility, this implies that tourist sites should not focus on the use of digital technology only during the period of pandemics but also during non-pandemic periods. Even though, its patronage during pandemic era will be high but its essence to the tourism destination during non-pandemic periods cannot be overlooked. For example, the use of digital technologies can increase the number of tourists who physically visits tourist sites during non-pandemic periods due its ability to aid in booking accommodation, travelling and ticketing.

#### 6.4 Limitations of the study

The study had several limitations. First, there was bias in data collection due to the inability of interviewees to remember what exactly their experience was. They had issues recalling the exact moments and experiences because those experiences happened in the past. Also, due to the subjective nature of the study, interviewees might have exaggerated their responses to make them more appealing. To minimize these biases, the researcher reviewed the results from interviewees and maintained a neutral stance. In knowing interviewees' experience using digital technology, a comparative study of traditional tourism experience could be compared to a digital technology tourism experience. This could have helped me know how digital technology impacts the customers' experience or whether the experience in both situations is the same. In addition, the use of the qualitative method made us know the experience, not the levels.

A quantitative study would have been able to help know the level of experience on a scale to know whether some experiences have a higher impact than others. Also, quantitative study has the advantage of generalising results due to its objective nature as compared to qualitative study which is more subjective and makes generalisation difficult. Finally, the memorable tourism experience (MTE) model could have been used as the study's theoretical backing rather than the Stimulus-Organism-Response (SOR) model. This is because the MTE has broader seven (7) measures that could have been tested to know whether those measures were achieved in the

study, which can help conclude that digital technology influences customer experience. The use of MTE in the study would have provided deeper insight into the various experience customers experienced based on its seven (7) scale components of hedonism, novelty, local culture, refreshment, meaningfulness, involvement, and knowledge as compared to SOR which does not provide a deeper insight into the various experience customer derives from tourism but rather how the environment influences individual's response to purchase a product. Even though, both theories involve how behaviours are influenced in terms of decision making but MTE further analyses the various experiences derived from those decisions to makes them memorable for a customer of which SOR does not.

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# **APPENDICES**

# APPENDIX A

## INTERVIEW GUIDE FOR TOURIST

### SOCIO-DEMOGRAPHIC

## Preamble

Thank you for taking part in this important survey to find the impact of virtual technologies in tourism. The information taken is needed solely for academic purposes and nothing else. Information provided will be accorded the maximum confidentiality it deserves. Kindly be genuine with your responses; if there is any question you do not want to answer, please let us know. The survey should take a maximum of 60 minutes to complete.

- 1. Age of respondent?
- 2. Sex of respondent?
- 3. The educational level of respondent
- 4. Country of residence of the respondent
- 5. Have you ever visited a tourist site?
- 6. How often do you visit a tourist site?
- 7. How can you choose a particular tourist site?
- 8. Do the tourist sites you visited use any technology? What was its use? (If yes, probe for the use of VR or AR technologies. If no, if they have heard of the use of any technology used in the tourist industry)
- 9. Do you think these technologies give a memorable experience? Why? (Probe for emotional, cognitive experience?
- 10. What did this experience mean to you?
- 11. Could you detail the most impressive moments or aspects of this experience when using any technology at the tourist site?
- 12. Can you kindly share with me the processes you went through in selecting your tourist destination? (Probe for factors that influence decision)

- 13. How was your experience at the tourist site? Probe further
- 14. After you visited the tourist site, can you kindly share how your recollection process was?
- 15. Would you ever return to this tourist site? Why?
- 16. What do you like about this tourist site?
- 17. In your opinion, how has technology affected the tourist industry?
- 18. In your opinion, how do these technologies benefit you as a tourist?
- 19. Can you provide some challenges associated with using technology in the tourism industry?
- 20. Do you have something to add?

Thank you