The Role of immersive technology in the hospitality and tourism industry

Bachelor Thesis Proposal for Obtaining the Degree

Bachelor of Business Administration in

Tourism, Hotel Management and Operations

Submitted to Eva Aileen Jungwirth-Edelmann, MA

Donika Viqa

61901401

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Affidavit

I hereby affirm that this Bachelor's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed. In particular, I did not use any text generators or other paraphrasing tools. My thesis was not proofread.

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Abstract

Topic: The Role of Immersive Technology in the Hospitality and Tourism Industry

Name of Author: Donika Viqa

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Content: Immersive technologies have the power to connect people and places in a wide spectrum of industries. As immersive technologies serve different functions towards various industries, the characteristics of purchasing intentions, booking behaviors, customer experiences and customer satisfaction are tested to identify the effect which it has on the industry. To determine the effects immersive technologies have on the tourism and hospitality industry, this thesis tests how immersive technologies effect and/ or influence different types of consumers. Therefore, the mixed method approach is used to facilitate a comprehensive understanding of an individual's perspective on immersive technologies and the factors influencing their perspectives using a survey. Parallelly, the factors influencing the perspectives of expert individuals are assessed using qualitative interviews. In this research study, four main findings have been clearly identified. There has been a positive indication that augmented reality is widely perceived as the ideal tool for immersive navigation of destinations and hotel premises. Virtual reality is perceived to offer significant added benefits to virtual tours of tourism and hospitality related environments. Immersive technologies serve as an added benefit in the customer journey both prior to purchasing as well as post-purchasing. There has been a positive significance between immersive technology tools/ applications and the influence on consumer purchasing behaviors. The uprising of the metaverse is projected to expand customer bases and will aid to create additional revenue streams for the tourism and hospitality industry. However, it is evident from findings that immersive technologies need to undergo further research and development to create more realistic immersive experiences while effectively mitigating health barriers such as motion sickness and vertigo.

Supervisor: Eva Aileen Jungwirth-Edelmann, MA

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1 Introduction

This bachelor thesis discusses and identifies the effects of immersive technology on the hospitality and tourism industry from elements of human behavior such as actions, thoughts, and emotions, and how they relate to optimize the use of immersive technology.

The following chapter discusses a wide overview of immersive technology in the hospitality and tourism industry. This includes an outline of the thesis in the sequence of the main aim, secondary aims, the research questions, hypothesis, and limitations.

1.1 Motivation and Cognitive Interest

The growth and development of immersive technology has heavliy influenced the way humans work and interact, harmonizing digital aspects into everyday life. The power of immersive technology has enabled people and places to connect with one another in a wide spectrum of industries such as education, hospitality, health care and many more. Immersive technology is a technology that integrates virtual content with surrounding physical environments. This technology creates the possibility of a blended/ mixed reality by merging physical and digital worlds (Neuburger, 2022). The main types of immersive technologies are augmented reality (AR), virtual reality (VR) and mixed reality (MR). One of the major industries which have implemented immersive technologies such as AR and VR is the tourism and hospitality industry. In recent years, the rise of immersive technology in the hospitality and tourism industry has transformed the consumer experience by the integration of augmented reality, virtual reality and mixed reality tools and applications. In this regard, most industries have adopted virtual and augmented reality tools as a marketing strategy. Immersive technologies create the opportunity for businesses to increase customer engagement with their products and services as it targets different senses and emotions (Israel et al., 2019). The implementation of immersive technology in the hospitality industry can aid to facilitate the pre-purchase experience as immersive technologies such as virtual reality (VR) can place an individual in a specific environment without them having to be their. This ultimately

increases the customers awareness of a product or service prior to their purchase (Won-Jun, 2020). Otherwise known as the “try before you buy” method, which enables businesses to provide their customers with a more personalized and memorable experience encouraging positive emotions in the purchasing behaviour of a customer (Kim et al., 2017). Virtual and augmented technologies can aid businesses in the understanding of customer preferences and enable them to create a more personalized experiences (Amorim et al., 2022). Immersive technologies do not just benefit tourism and hospitality businesses in terms of marketing and sales, but these technologies can also be applied to simplify the training of all levels of staff (Israel et al., 2019).

1.2 Outline of thesis: Main and secondary aims, research questions, hypothesis.

The main aim of this thesis is to determine the effect immersive technologies have on the hospitality and tourism industry, and to identify the influence immersive technology has on purchasing intentions, booking behaviors, customer experience and customer satisfaction. To achieve this aim, the difference between customers’ traditional purchasing methods vs. immersive purchasing methods will be compared.

The secondary aims of this thesis determine the effect immersive technologies have on the human behavior in which the experience of a customer relies on the perception of immersive experiences rather than visualizing experiences through written content or self-imagination.

A set of secondary aims need to be achieved to support the main aim.

- To define the various multisensory technologies, including but not limited to augmented reality, virtual reality, mixed reality and how tourism and hospitality organizations apply immersive technologies as a marketing tool to attract and interact with customers, as well as researching the uses of such immersive technologies and the experiences created while keeping into consideration the different application methods and possible challenges in this field.

- To focus on the consumers' characteristics throughout the customer journey including the consumers' behavior and purchasing intentions as well as the consumers emotional response when exposed to different types of immersive technologies.
- To analyze how implementing immersive technologies has an impact on the consumers' perception towards a product or service and the emotional power immersive technology holds in building stronger relationships with clients.

Deriving from the previously mentioned aims, the following research questions need to be answered:

- Where in the customer journey are multisensory technologies best applied?
- Which type of immersive technology is most suitable for effectively marketing tourism and hospitality?
- What are the strategies used to influence human behavior through immersive technology and how do you mitigate the challenges of immersive technology?
- How will the tourism and hospitality industry adapt to the uprising of the metaverse and what influence will the metaverse have on hotel guests' experience?

This study aims to answer the following hypothesis, keeping in mind the above mentioned aims.

Immersive technology has turned into a powerful tool for the hospitality and tourism industry to engage customers with an immersive experience using tools and applications to have an influence on the customers purchasing intentions.

1.3 Limitations

The limitations of this research study that could potentially have an influence on the interpretation of findings are crucial considerations for the outcome of this research paper. Given that one semester is devoted towards writing this bachelor thesis, the available time to develop this research study is limited. As a non-expert in the field of immersive technology, the base of this research study is built on extensive literature research and primary research from industry experts in order to gather data. As this research study is reliant on expert knowledge, it is necessary to select experts from the hospitality and tourism sectors as well as the technology industry. Finding experts in the industry can be challenging as the demographic sample size is a limitation to this study. Likewise, an expert opinion could potentially be biased, inaccurate or misinterpreted which is a limitation concerning the quality and accuracy of data retrieved. Additionally, assumptions to this research study could lack in accuracy and credibility given the limitations of the industry experts involved in the study.

2 Literature Review

The purpose of this literature review is to gain an understanding of immersive technology and its role in the hospitality and tourism industry, its influence on the customer decision journey as well as their purchasing intentions. The first part of the literature review will discuss the different immersive technologies along with their applications and tools. The different type of experiences generated by immersive technology will be analyzed to identify the most effective methods of applying immersive technology in the tourism and hospitality industry. The following section addresses aggravating and mitigating factors of rising challenges for immersive technology in the hospitality and tourism industry. The influence immersive technology has on consumers behavior, attitude and perception is addressed and evaluated. In the last section of this literature review, the influence of multisensory technologies used in the marketing process of the tourism and hospitality industry are portrayed through assessing current immersive marketing experiences provided by tourism and hospitality organizations and determining its effects on consumers purchasing intentions.

2.1 Immersive Technology and its concepts

Immersive technology, also referred to as augmented reality (AR), virtual reality (VR) and mixed reality (MR) has increased its popularity in the recent years attracting new customers, consumers and industries (Berg & Vance, 2016). Industries such as medical, marketing, education, retail and many more have implemented immersive technologies for a variety of purposes.

Abbreviation	Term	Definition
IT	Immersive Technology	Immersive technology is a technology that blends together the real and virtual world in which users can experience an immersive simulation.
VR	Virtual Reality	Virtual reality refers to a 3D simulated environment that enables users to interact in a virtual environment using sensory tools.
AR	Augmented Reality	Augmented reality provides users with an interactive experience that merges the real world with computer generated objects.
MR	Mixed Reality	Mixed reality integrates physical and virtual objects together in real-time which enables users to interact with computer generated elements in the real world.

Table 1: Definition of immersive technologies
Source: (Suh, A. and Prophet, J. 2018)

Table 1 outlines the definitions of different immersive technologies consisting of VR, AR and MR. Virtual reality (VR) is a three-dimensional simulated environment that enables users to interact in a stimulated real-life environment. VR provides users with a realistic experience supported by tools and gadgets such as headsets, glasses and gloves. Simultaneously, these tools track and analyze information about the user to gain key insights of the users' responses (Suh, A. and Prophet, J. 2018). Augmented reality (AR) refers to a technology that merges the real environment with computer generated content. AR provides users with an augmented digitalized version of objects integrated into the real world. Hoium (2021) stated that, large organizations such as Facebook and Apple are investing heavily into immersive technology to foster its future growth and potential. As many industries are adapting and restructuring towards the latest trends and technologies, the retail industry has set foot into implementing immersive marketing and sales strategies (Javornik, 2018). For instance, smart mirrors also known as "try on mirrors" have revolutionized the way shoppers are navigated and assisted throughout their shopping experience (Javornik, 2018). A variety of research studies have been conducted to gain a deeper understanding into the concept of customer experiences and its phenomenon in value and co-creation (Bastiaansen et al., 2019; Han & Tom Dieck, 2019; Lim & Kim, 2018). To fully understand the phenomenon of customer

experiences, one must analyze the changes in customer behavior and how value is created throughout the consumer decision making process (Grønholdt et al., 2015).

Purchasing stages and characteristics				
Awareness	**Information search**	**Evaluation**	**Purchase**	**Post-Purchase**
Customer recognizes a problem. Customer becomes aware of product.	Customer seeks information from internal and external sources.	Customer applies its information to evaluate alternative products.	Customer buys product suitable to their problem or desired outcome.	Customer evaluates their purchase based on their overall expectations to be satisfied or dissatisfied. Satisfied: re-purchasing, positive WOM, and recommendations. Dissatisfied: Product return, negative WOM, and complaints.

Table 2: Purchasing stages and characteristics

Source: (Huang & Benyoucef, 2017)

The importance of implementing immersive technologies has become more prevalent over the years as many companies leverage these technologies to provide customers with a unique experience aiming to create value and a sense of connectivity (Breidbach, Brodie, & Hollebeek, 2014; Kumar, Dixit, Javalgi, & Dass, 2016; Patrício, Fisk, & Falcão e Cunha, 2008). Research experts stated that the importance of immersive technology derives from the positive impact it has on a user's perception of the virtual environment (Peukert et al., 2019, Slater and Wilbur, 1997). Ostrom (2015) stated that, the exposure of immersive interactive engagement, requires users to play an active role within an immersive experience which results in increased value perception (Patrício, Fisk, Falcão e Cunha, & Constantine, 2011). For instance, with the use of AR applications, users are able to use the "try before you buy" method to virtually visualize and inform themselves of a product prior to purchasing. An example of this would be visualizing a dining room with the new furniture aided by AR during the pre-purchasing stage. In a hotel booking scenario, users are able to explore the hotel and destination using a 360 virtual reality tour prior to their stay. In a post purchasing scenario of an augmented reality television, users can gain access to live game statistics using MR glasses.

These immersive concepts can foster a user's ability to gain more information, create a memorable experience and digitally visualize different environments (Fan et al., 2022).

2.2 Methods of applying immersive technology

Immersive technology has led to an expansion in various industries such as entertainment, education (Calvert & Abadia, 2020; Frank & Kapila, 2017), marketing, training and the medical sector (Kobayashi et al., 2018; Zhao et al., 2016). Immersive technology and its concepts have shown to enhance learning experiences, improve teamwork and encourage creative thinking in a learning environment (Tang et al., 2022). Further, immersive experiences increase user engagement (Guttentag, 2010) and satisfaction whilst benefiting businesses at the same time (Bate and Robert, 2007).

Application	Technology	Characteristics	Source
Google Cardboard	Virtual Reality	• Affordable • Compatible with VR applications • User interaction • Motion tracking	Google Cardboard, n.d
IKEA Place	Augmented Reality	• Multi-placement feature • "Try before you buy" • 98% accuracy rate • True to scale	IKEA app page, n.d
Microsoft HoloLens 2	Mixed Reality	• Perform error-free tasks • Precise accuracy • Holographic interaction	Sandström, 2022

Table 3: Types of VR, AR, MR applications

Table 2 portrays the different types of immersive applications and its characteristics. Businesses across various industries are undergoing digital transformation. This provides companies with the opportunity to transform their business models tailored towards attracting new customers' and creating new experiences (Nambisan et al., 2019; Yoo et al., 2012).

Figure 1: VR Google Cardboard
Source: (Google Cardboard, n.d.)

Google Cardboard is virtual reality hardware designed to provide users with the ability to experience VR technology through using the cardboard headset. It is an affordable piece of hardware that can either be bought pre-assembled or self-built (Google Cardboard, n.d.). As a result of easy integration between google carboard and a mobile device/ other hardware compatible, users can explore 360 virtual environments in different settings. This device features two lenses that can be adjusted to the distance of the screen. Additionally, it is compatible with iPhone and Android VR applications. Google Cardboard is a beneficial tool used in education to create engaging and immersive learning experiences for students. For instance, teachers can use this application to give students a virtual tour of historical sites. Google Cardboard has many features that allows users to virtuality travel the world and experience different countries and cities that offer various tours and attractions (Tussyadiah et al., 2018).

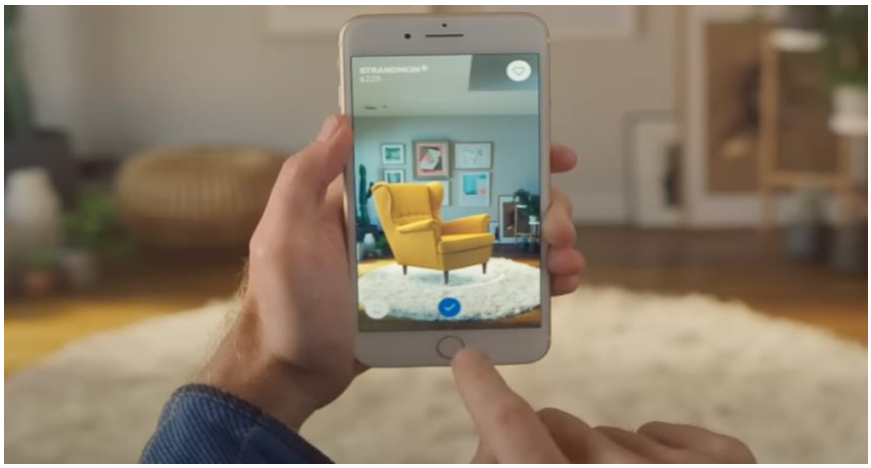


Figure 2: AR Ikea Place APP
Source: (Ikea App Page, n.d.)

Figure 2 portrays the "IKEA PLACE" application designed by augmented reality (AR). This AR mobile application allows users' to virtually explore and place non-tangible furniture within their homes. This application features a multi-placement for Ikea furniture items which are true-to-size and have 98% accuracy. As a result, it eliminates barriers associated to a customers' imagination as individuals have the possibility to explore and experiment with different products prior to their actual purchase.

Figure 3: MR Microsoft HoloLens
Source: (Sandström, 2022)

The HoloLens 2 developed by Microsoft is a mixed reality device that is designed to transform work tasks in real time. The concept involves MR headsets that are capable of integrating 3D elements into the visual field such as holograms. The device responds to real-time hand and eye tracking movements creating realism of holograms in the physical environment.

2.2.1 Immersive technology in tourism

Immersive technology has introduced new heights to the tourism industry (Sigala, 2018). Wang et al. (2014) indicates that, the use of immersive technologies in the tourism industry has transformed tourist behaviors towards decision making, purchase intentions (Ukpabi & Karjaluoto, 2016) and perceptions when it comes to travelling. According to research carried out by Wang et al. (2016), the use of smart devices has become an important role in travelling. These technologies enrich many aspects of peoples' lives and become collectively more relevant to peoples' social and work life (Sigala, 2018). Therefore, He et al (2018, p. 129) emphasized the importance of implementing augmented reality in the tourism industry to create unique user experiences, enhance customers attitudes and their behavioral intentions. Tourists are able to discover new destinations and learn about them using augmented reality applications (Han et al., 2014). The concept of immersive technology in the tourism industry, provides individuals with an educational experience and provides opportunities to tourist attractions such as museums and exhibitions to modernize content (He et al., 2018; Scarles, Casey, & Treharne, 2016). Applying immersive technologies in the customer journey can bridge the barrier of emotions towards associated to a destination or tourist attraction. Immersive advertising has the power to form an immediate connection with the customer (Olsson et al., 2013). As a result, the emotional interaction using AR or VR has a strong influence in the upselling of a product or service (Gerrity, 2018). Taylor (2018) stated that, Marriott International implemented an augmented reality application to enhance their customer experience by allowing customers to virtually explore Marriott resorts and its facilities prior to their visit.

2.2.2 Immersive technology in Gaming

Immersive game development has revolutionized the gaming industry and shown a substantial growth and traction over the recent and forthcoming years. The global revenue of

the VR gaming industry is estimated to reach 1.8 billion USD in 2023 and is projected to reach 6.9 billion USD by 2025 (Clement, 2023). The global AR software industry is forecasted to reach 11.58 billion USD in 2023 and is projected to reach 15.58 billion USD by 2027 (Statista, 2022). The integration of immersive technologies such as AR and VR in video games has changed the way users interact and experience with video games compared to traditional video gaming. Unlike traditional video games, immersive gaming requires individuals to interact with computer generated content within their physical environment (Dunleavy et al., 2018). Immersive video games provide users with the cognitive ability to improve their gaming performance. According to Das, P. et al. (2017), the traditional video game "Pokémon" has leaped into the immersive world with "Pokémon GO" in 2016. The video game has evolved from the traditional Pokémon battle game into an AR application game that has the objective to hunt and collect Pokémon characters using a real-time map that displays where the Pokémon's are located at when you are near their location (Das, P. et al. 2017). As per Bowerman (2016), Pokémon Go has contributed towards healthy lifestyle choices by promoting exercise and movement through the search of Pokémon's as well as encouraging hospital patients to engage in activities and interact with others. Although there are many advantages associated with immersive gaming experiences, there are also disadvantages such as: inattentiveness and location tracking privacy (Das, P. et al. 2017).

2.2.3 Immersive technology in Education

Immersive technology has created new opportunities for learning and teaching in education (Wu, H.-K. et al. 2013). Unlike traditional teaching methods, immersive learning experiences provide students with a visual perception and understanding by interacting with the immersive environment (Arvanitis et al., 2007). According to a study conducted by Kerawalla et al. (2006), students' exposure to immersive technology in learning has proven to have a greater learning outcome. Particularly, immersive technology in education provides students who have learning difficulties with a solution to their difficulties (Wu, H.-K. et al., 2013). AR and VR learning solutions facilitate the learning progress for students with realistic and

interactive environments. Sotiriou and Bogner (2008) state that the implementation of AR and VR applications in learning enhance a students' participation and motivation to gain knowledge effectively.

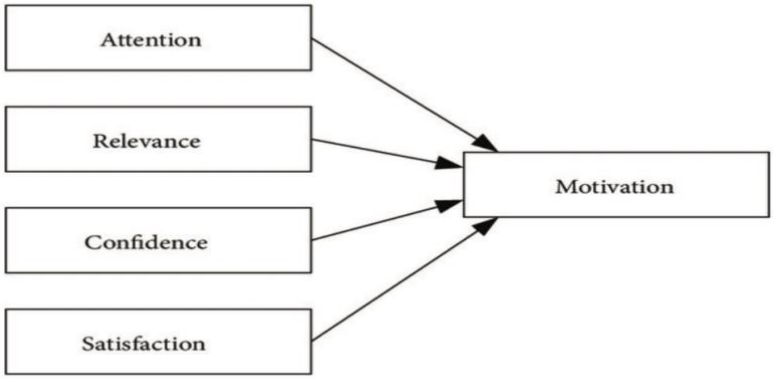


Figure 4: ARCS model of motivation
Source: (Khan et al., 2019)

Figure 4 displays Keller's ARCS model for motivation. This model was designed to portray the factors contributing to motivation in accordance to augmented reality exposure and students' motivation to learn (Khan et al., 2019).

- **Attention:** Refers to the attractiveness that stimulates the use of augmented reality for students
- **Relevance:** Students must feel the importance of using AR technology to benefit their knowledge.
- **Confidence:** Students should be familiar and confident with using the technology.
- **Satisfaction:** Students need to feel the sense of satisfaction post-AR experience.

2.2.4 Immersive technology in Retail

Immersive technologies like, AR and VR have been widely used in the retail industry. The implementation of immersive technology in retail applications has made it possible to enhance and personalize customer's shopping experiences (Gaioshko, 2014). Ultimately, immersive technologies have the power to influence conversion rates, return rates, customer

satisfaction, as well as the pre-purchasing experience (Dacko, S.G., 2017). According to Gaioshko (2014), retailers such as Bloomingdales have already implemented augmented reality by providing customers with virtual try on mirrors. Additionally, Martínez et al., (2014) stated that cosmetic retailers introduced AR applications that allow customers to apply make-up and skin care products to virtually test the product prior to purchasing. As a result, customer's perceive greater value from the brand and retailers benefit from improved conversion rates. As product returns are one of the greatest challenges retailers encounter, the use of immersive technologies has proven to reduce the amount of product returns for retailers (Dacko, S.G., 2017). For instance, the IKEA place application driven by AR technology provides customers with a virtual rendering, accurate measurements as well as the furniture suitability prior to their purchase. This reduces the return rate for products and increases the overall customer satisfaction rate. As immersive technologies have become a major influence in the retail industry, major companies such Deichmann and Converse have implemented AR applications that allow customers to virtually try on shoes that are true to their size (Dacko, S.G., 2017). Additionally, customers have the possibility to accelerate their buying decision without having to take a trip to their local brick and mortar store.

2.2.5 Challenges & Opportunities of using immersive technologies

Immersive technology is an empowering tool for businesses and individuals to carry out useful functions and solutions. Although the application of immersive technologies can be very beneficial in many aspects, there are some challenges associated with it. For instance, the exposure to a virtual environment may arise health risks such as nausea, vertigo, motion sickness and other health effects (Prabhakaran, A et al., 2022). Consequently, these symptoms can lead to life-threatening situations. For instance, the use of immersive applications in public areas can cause distractions to the user and their surroundings. In other cases, users that do not regulate or follow the health risk protocol provided by the AR or VR tool/ application have a higher risk of long-term health effects (Anses, 2022). Particularly, users with medical conditions such as epilepsy, vertigo, heart diseases as well as pregnancy should avoid the exposure of virtual environments (Anses, 2022).

M. Ghobadi and S.M. Sepasgozar (2020) stated that the high cost associated with immersive technology tools and applications across industries is a leading factor for the slow adoption. Nevertheless, immersive technologies will continue to play an important role in the foreseen future, companies like Google have introduced cost effective VR approaches such as Google Cardboard. As immersive technologies enable users to experience virtual environments using their senses, there are still some limitations associated with a realistic approach to virtual experiences. This limitation considers the sense of touch, smell and taste for users to realistically connect with the virtual environment (Guttentag, D.A., 2010). Such sensory limitations remain challenging to foresee the development of technology in those areas (Guttentag, D.A., 2010).

Aside from the challenges associated with immersive technology, AR and VR provide an enormous opportunity to a variety of industries. According to Williams and Hobson (1995), applying immersive technologies to marketing transforms the way products and services are promoted providing customers with a personalized and memorable experience to connect with businesses. Specifically in the tourism industry, virtual reality allows users to virtually visit destinations (Cheong envisioned, 1995). Cheong (1995), William and Hobson (1995), stated that a tourists' vacation outcome is significantly improved when given the opportunity to virtually visit a destination prior to their travel as they are able to set more realistic expectations. Further, virtual reality provides users with the opportunity to virtually visit tourist sites such as monuments, museums, and exhibitions in different countries. According to Guttentag (2010), such recreational tourist sites may be associated with intellectual property (IP) challenges of protection. Nuryanti (1996) argues that historical sites belong to a culture of society and should be considered accessible to the public. Nevertheless, certain historical sites are monitored by authorities to protect intellectual properties, consequently hindering the virtual recreation of historical sites (Guttentag, D.A., 2010).

2.3 Consumer Behavior

The term "consumer" is referred to as an individual or a group of individuals who purchase or consume goods and services for personal consumption (T.K., 2014). However, the term

"consumer" has been defined in many ways. Solomon (2020) defines a consumer as "a person who identifies a need or desire, makes a purchase, and then disposes of the product during the three stages of the consumption process" (p. 23). Moreover, the consumer constitutes an important role in the economic system of a country (Victor S.S, n.d). According to Victor (n.d), consumer demand is the motivational drive for producers to produce goods and sell to consumers.

Moutinho (1987) and Engel et al., (1995) refer to consumer behavior as the process of analyzing a consumers' behavior throughout the pre-purchase and post-purchase stages, evaluating their experiences (Günlü, 2007) to obtain information on their purchasing decisions. Understanding the characteristics of consumer behavior is crucial for marketers to specifically target the right audience with a product or service designed to cater ones needs and wants.

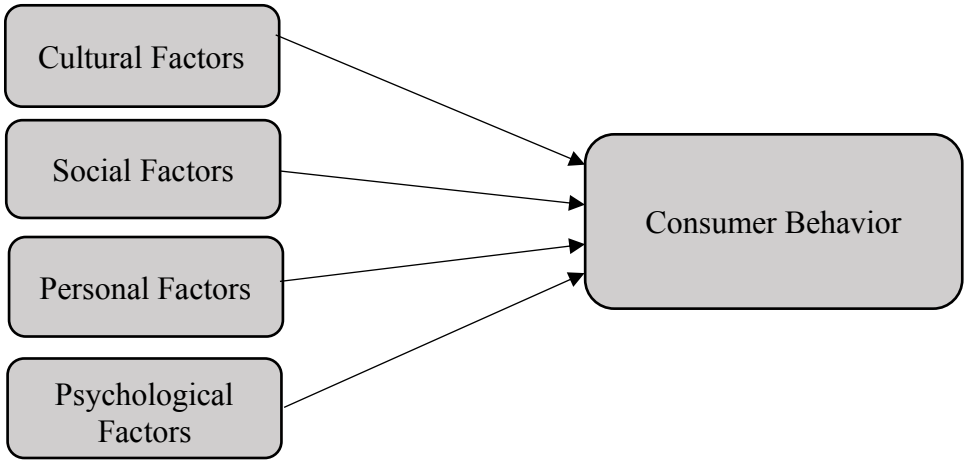


Figure 5: Factors influencing consumer behavior
Source: (T.K., 2014)

Figure 5 portrays the various underlying factors that affect consumer behavior.

- **Cultural:** Culture is referred to as a particular group or society that integrates and share the same beliefs, values, religion, as well as behaviors. Culture plays a vital role in a consumers' behavior, their purchasing choices and how consumers perceive a product or service (Ramya, N. and Ali, D.S.A.M., 2017).

- **Social:** The social factors that influence a consumers' behaviour are identified by an individual's reference groups, family, roles and status (T.K., 2014). Social influences have the power to directly or indirectly effect on a consumers' purchasing behaviour (Ramya, N. and Ali, D.S.A.M., 2017).
- **Personal:** Personal values underscore the fundamental importance in a consumer's purchasing decision. The personal factors that affect consumer behavior are influenced by age, occupation, personality, lifestyle as well as economic situation (T.K., 2014).
- **Psychological:** Psychological factors include an individual's perception, motivation and values (T.K., 2014) which has an influence on a consumers' behaviour and purchasing intention. The psychological desire for a consumer to purchase a certain product or service correlates with the believe that these products or services provide benefit towards one's motivational goals (Solomon, M.R., 2020).

2.3.1 The importance of consumer behavior

Understanding a consumers' behavior throughout the purchasing journey signifies the importance of consumer behavior as it allows marketers to navigate consumers with making informed purchasing decisions (McFee, n.d.). The underlying importance of consumer behavior and as to why it is important to study is simply to generate business strategies. Marketers study consumers behavior and trends to create and develop products and services that satisfy consumers' needs (Solomon, M.R., 2020). However, there are different types of consumers that marketers' study and aim to understand in order to excel the needs and wants of those consumer segments. From a business perspective, understanding consumer behaviors is an ongoing process that changes over time. One of the biggest challenges is staying relevant in a changing business environment. Solomon (2020) points out that businesses must stay ahead of the curve in an evolving market and constant changes in consumer behavior. An example of this is BMW's range of electric BMW "I" car models whereby their understanding of future evolving markets and change in consumer behaviors is combining style with an environment friendly approach (Solomon, M.R., 2020). Nowadays,

consumers are attracted by multiple marketing stimulus such as commercials, pop-up ads, and products grasping the consumers attention and money (Solomon, M.R., 2020). Marketers withhold the power to influence consumer habits and purchasing intentions with the way they market their products and services. For instance, the beer company “corona extra” published an advertisement in cinemas using blurred content to deliver the message of drinking responsibly. Thereby, marketers have the power to deliver important messages to consumers and change their perceptive and behavior towards a certain act (Solomon, M.R., 2020).

2.3.2 Emotions in consumer behavior

Franklin E. Payne, Jr., M.D. (1989) defines emotions as “the momentary (acute) and ongoing (chronic, continuous) disturbance within the mind (soul, spirit) caused by the discrepancy between perceived reality and one's desires”(p. 2). Emotions play an important role in the purchasing behavior of a consumer. Thereby, consumer preferences are affected by different emotional states.

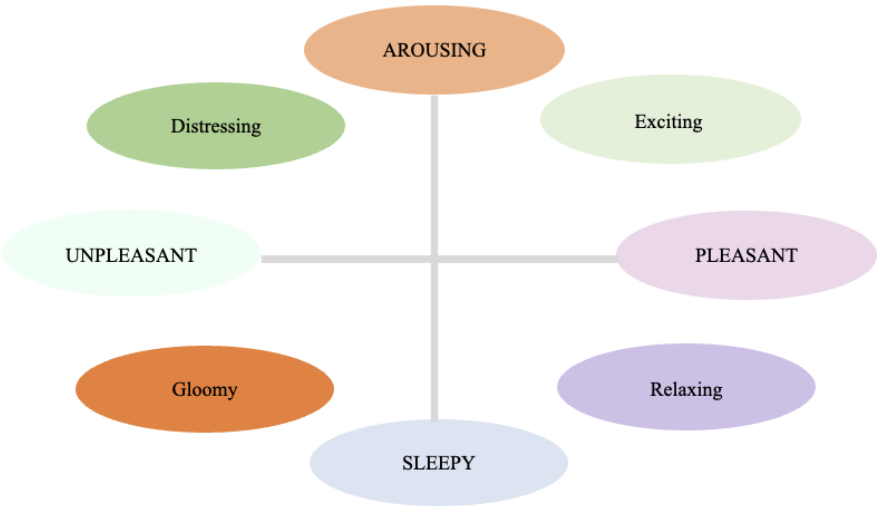


Figure 6: Dimensions of emotional states
Source: (Solomon, M.R., 2020)

Figure 6 demonstrates the different dimensions of emotional states. The determining factor of perceiving a positive or negative feeling is between the emotional state of pleasant and arousing (Solomon, M.R., 2020). An arousing emotional state can be associated with a distressing or exciting dimension of emotional state. This depends on the situation, for example, a letter of recruitment versus a letter of redundancy. Many other factors including the news, music (II, G.C., 1990), arguments, as well as social media can have an influence on one's emotions. Goldbern and Gorn (1987) point out that listening to happy music or watching feel-good programs can trigger a release of happy emotions. According to Consoli (2010), marketers use "emotional marketing" to connect consumers emotions with a certain products or services to convince and/or motivate consumers to purchase a specific product and/or service.

2.3.3 Consumer experience

Holbrook and Hirschman (1982) describe customer experience as the interaction which a consumer has with a product or a service. Particularly, one's perception of the experience with the product or service. Meyer and Schwager (2007) accentuate the meaning of customer experience as "the internal and subjective response customers have to any direct or indirect contact with a company" (p. 2). Suh, A. and Prophet, J. (2018) further emphasized that during the purchasing journey, different types of stimuli are expressed by a customer (Brakus, Schmitt, & Zarantonello, 2009).

Response Type:	Characteristics	Source
Cognitive response	Knowledge Understanding Learning Experience Perception	(Van Noort et al., 2012)
Emotional response	Anger Surprise Disgust Enjoyment Fear Sadness	(Solomon, M.R., 2020)
Behavioral response	Attitude Beliefs Culture Lifestyle Religion	(Ramya, N. and Ali, D.S.A.M., 2017)(T.K., 2014).
Sensorial response	Hear Smell Taste Vision Touch	(Guttentag, D.A., 2010)
Social response	Income Social Class Education Family and Friends Occupation	(T.K., 2014).

Table 4: Response types and its characteristics

Table 4 portrays the different response types and its characteristics throughout a customer purchasing journey. The fundamental concept of a customer purchasing journey is built on different responses that customer's' create towards a brand, product or service. Lemon and Verhoef (2016) define costumer journey as "the process a customer goes through, across all stages and touch points, that makes up the customer experience" (p. 71).

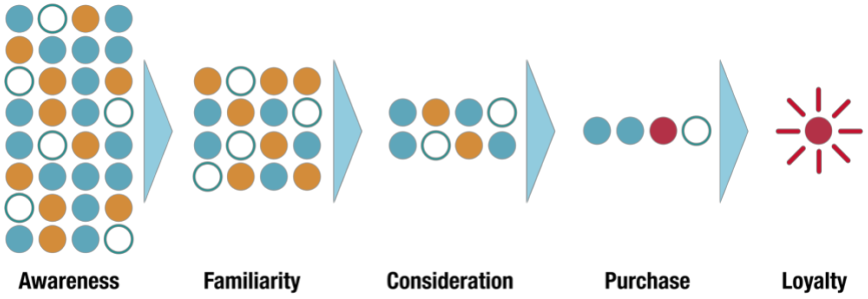


Figure 7: Customer journey map
Source: Court, D. et al. (2021)

Figure 7 portrays the different touchpoints within the customer journey which include: awareness, familiarity, consideration, purchase, and loyalty. The consumer purchasing map provides companies with an understanding of a consumers' purchasing experience throughout the various touchpoints (Court, D. et al., 2021). Accordingly, companies employ this information to improve consumers purchasing experiences. Consumer experiences may fluctuate depending on their mood or situational factors. For example, a customer visiting a store in a bad mood and receives rude customer service is more likely to associate the brand/company with a bad customer experience and vice versa. Therefore, successful companies achieve good customer experiences by providing outstanding customer service, personalization, and an understanding of customer needs (Solomon, 2020). Additionally, companies benefit from customer feedback as they can improve their products and services to increase customer satisfaction and loyalty. Another factor influencing a customer's experience is a companies value proposition (Solomon, 2020). For instance, Audi "Being Ahead Through Technology" is a powerful Slogan, characterizing technology and innovation.

Unlike the traditional brick and mortar stores, there has been an exponential growth in technology that transformed the way consumers share information and evaluate products and service on social media (Law et al., 2014; Wu et al., 2017). Consequently, online consumers often underrate products due to the lack of its physical presence and consumers can only experience products from textual and visual perceptions which requires consumer trust which is often based on and derived from online reviews (Yang et al., 2021; Zhang et al.,

2021b; Zhou et al., 2018). BrightLocal (2018), indicates that nearly 80% of consumers base their recommendations on customer reviews.

2.4 Generational management and consumer behavior

Mannheim (1952) and Strauss et al., (1991) distinct generational cohorts between different life courses. These generational cohorts are divided into different categories accordingly through years of birth (Mannheim, 1952; Strauss et al., 1991). Schewe & Meredith (2004) and Schewe & Noble (2000) indicate that a generation duration is expected to project 20 – 25 years.

Generation	Year
The Greatest Generation	1901 – 1924
The Silent Generation	1925 - 1945
The Baby Boomer Generation	1964 – 1964
Generation X	1965 – 1979
Generation Y	1980 – 1994
Generation Z	1995 – 2012
Gen Alpha	2013 - 2025

Table 5: Generational grouping
Source: Caregivers of America (2022)

Table 3 portrays the different generational cohorts between birth years. Generational groupings have been defined differently across the globe, leading to different generational age groups between countries. Each generation has experienced different life courses of events, demographics and shifts in lifestyles that shaped their behavior towards purchasing decisions.

- **The Greatest Generation:** Born between 1901 and 1924, was a generation affected by the Great Depression and the second World War. Specifically, this generation lived frugal and modest lives, yet strong and hard-working (Kagan, J. 2022).

- **The Silent Generation:** The Silent Generation born between 1925 and 1945 lived through the Great Depression and World War II. Olsen et al., (2007) describes the silent generation as conservative and having pragmatic views on reality. The greatest generation as well as the silent generation are a group of individuals that prefer traditional modes of living such as in-store shopping and writing postal letters. As their lives were affected by the great depression, their spending habits are considered frugal; only purchasing necessities (Olsen et al., 2007).
- **The Baby Boomer Generation:** Born in 1964, they grew up with digital contribution to their households introducing the television and telephone (Walmsley, 2011). Griffis (2008) describes the baby boom generation as innovative and materially driven. Just like the Greatest generation and silent generation, the baby-boomer generation prefer the traditional brick and mortar store as they prefer the actual shopping experience. Specifically, baby-boomers tend to stick to brands they know and trust rather than relying on online review sources.
- **Generation X:** Born between 1965 and 1979, they were affected by the early 1980 recession, increased divorce rates as well as the AIDS crisis. Generation X are described as being survivors and self-reliant (Griffis, H.S., 2008). Consequently, Gen X experienced economic and social instability (Lyon et al., 2007; Schewe et al., 2000). Generation X is a generation that is comfortable with both traditional and social media channels. In particular, the consumer behavior of generation X is considered to make wiser decisions than other generations. Specifically, they tend to frequently read reviews and spend more time on review websites such as TripAdvisor and Yelp (Peralta, 2015) which have an influence on their purchase intentions.
- **Generation Y:** Born between 1980 and 1994, they grew up surrounded with technology which was prominent throughout many aspects of their lives such as communication and education. Howe and Strauss (2003) point out that millennials adopt to advances in technology faster than the previous generations. Parment (2013) describes millennials as being early adopters and curious to try out new products and services influenced by social media. Additionally, millennials tend to have a higher

purchasing power and are known to be independent individuals (Eastman et al., 2012, Parement, 2013). Millennials tend to be more status and material driven (Eastman et al., 2012) and are inclined in purchasing mass-produced goods as their preferences leans more towards luxury goods (Butcher et al., 2017).

- **Generation Z:** Born between 1995 and 2021, grew up with social media connecting them with the world. As a global-minded generation, this generation uses their social media platforms to make a movement towards changing the world (Sladek and Grabinger, n.d.). Besides, technology is not just a tool to Gen Z's, it is considered part of their life. A study conducted by (Simangunsong, E. 2018) found that, the consumer behavior of Gen Z's has the tendency to be more impulsive when it comes to a product they desire. Besides, Gen Z's have the habit of shopping online due to the ease of use, variety of products as well as AR and VR retail tools.
- **Gen Alpha:** Born between 2013 and 2025, are considered the generation of the future. Gen Alpha is a generation shaped by technology and being part of a technological bubble, Gen Alpha is more likely to take different career paths in industries such as block-chain technologies and virtual reality. As generation Alpha is more movement orientated, they tend to make more conscious buying decisions to spread awareness and make a positive change in the world (Howarth, 2023). According to Howarth (2023), that the majority of Gen Alpha's are more likely to purchase a product if the company has a positive impact on the world.

2.5 Consumer Behavior and immersive technology

Immersive technologies such as VR and AR have introduced an innovative phenomenon in marketing and communication to marketers and consumers. Advancements in technology such as the development of new products, services as well as management processes have influenced the way marketers create meaningful content combining customer experience with value (Lee, 2020).

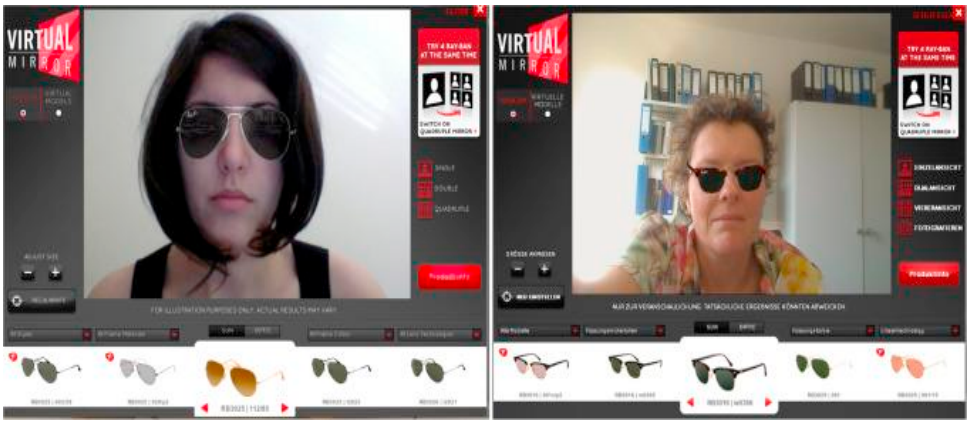


Figure 8: Virtual Mirror by Ray Ban
Source: (Pantano et al., 2017)

Figure 8 portrays an example of augmented reality; Ray Ban's virtual mirror provides customers with a virtual try-on experience to explore different sunglasses prior to their purchase (Pantano et al., 2017). As a result, it stages the consumers purchasing experience as they are able to try before they buy which co-creates value and increases a consumers' intention to purchase. Hilken et al., (2017) acknowledged that customers that shop online have the tendency to lack the visual idea of a product and sensation of a service, therefore immersive technologies such as AR applications are a convenient tool in aiding customer's with their purchasing decision. In a travel journey, Tom Dieck (2017) emphasizes that consumers use virtual reality tools during the pre-purchasing phase, whereby augmented reality is frequently used throughout the purchasing stage to enhance their experience. This plays a fundamental role in customer experience management (CXM) as consumer interaction and engagement is essential in today's business practices as well as in the retail world (Gilboa et al., 2019). Furthermore, immersive technologies have shown the capabilities of personalizing experiences through interactive and value co-creational attributes (Jung and Dieck, 2017).

2.5.1 SWOT analysis of immersive applications in customer experiences.

Strengths	Weaknesses
- Adaptability - Control - Try before you buy strategy - Interactive - Consumer engagement - Increased user knowledge	- Practicality - Health risks - False perceptions - High cost of hardware - Limited immersion
Opportunities	**Threats**
- Technological advancements - Product development - Growth of distribution channels - VR and AR aids in product visualization - Data collection	- Quality Assurance - Barriers to implementation - Security and privacy issues - Constant changes and advancements in technology

Table 6: SWOT Analysis of immersive applications in customer experiences.

Source: (Dahane et al., 2022; Ma et al., 2021)

Table 4 portrays the SWOT analysis conducted for the application of immersive technologies within customer experiences. This SWOT analysis has been conducted to determine both the challenges as well as opportunities associated with immersive technologies throughout a customer's experience. It is important to identify and understand each element of the SWOT to be able to allocate resources towards growth and to overcome challenges.

2.5.2 Marketing with Immersive technology in the hospitality industry

Gundlach and Wilkie (2009) define marketing as “an organizational function and a set of processes for creating, communicating, and delivering value to customer's and for managing customer relationships in ways that benefit the organization and its stakeholders” (p. 259). Immersive technologies have transformed the way markets promote products and service and create value to consumers.

Figure 9: VR application
Source: (VR for tourism, 2019)

As portrayed in figure 9, marketers use virtual reality in immersive marketing to promote holiday destinations and increase a customers exposure to get a sense of perception of the destination as well as encourage the customer to visit the destination (Nayyar et al., 2018).

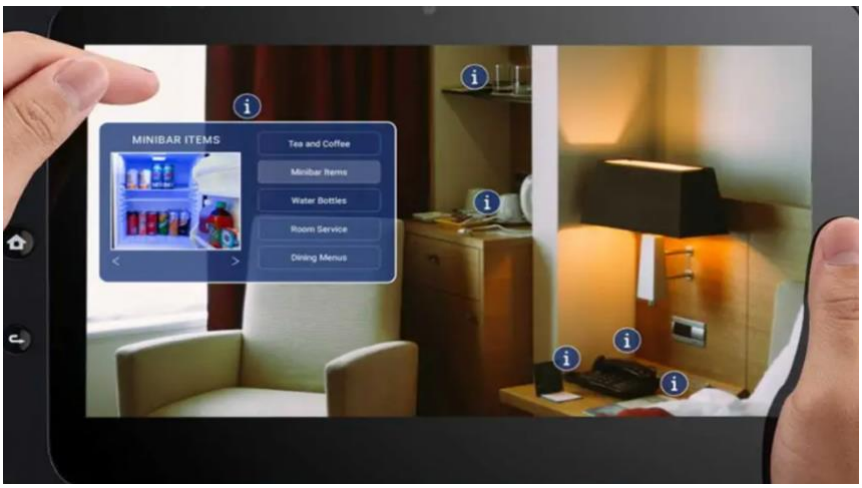


Figure 10: AR application
Source: (Hotel & Restaurant Times, 2022)

Another immersive marketing approach used by the hospitality industry includes augmented reality experiences allowing users to view a place of their interest such as hotel rooms and facilities as well as its neighboring surroundings (Nayyar et al., 2018). As AR and VR marketing in the hospitality industry plays a vital role in the booking experience of the customer, it

translates to a powerful and persuasive marketing tool that provides customers with the following:

- Interactive experience
- Informative and educational tool
- Explore and preview hotels and tourist sites
- Effective journey planning
- Stimulation of senses
- Accurate and reliable expectations

Immersive marketing using AR and VR stand as a strategic approach used by marketers to provide customers with an enjoyable and engaging experience (Brown, 2018; McGinnis, 2017; Munjal, 2020; Stefanuk, 2020). Immersive technology has become increasingly popular mainly among millennials and Gen Z's (Filter, 2017). Nayyar et al., (2018) emphasizes that a wide range of immersive technologies and its applications have been applied in the hospitality industry. As these immersive technologies are constantly evolving, the hospitality industry uses AR and VR capabilities in their marketing fields to attract, interact and engage with customers (Nayyar et al., 2018).

The tourism and hospitality industry has widely adopted immersive technologies and discovered new opportunities to communicate with potential customers through virtual and augmented experiences (Huang et al., 2015). However, tourism and hospitality organizations face difficulty to understand the fundamental informative and interactive elements to effectively market products and services to potential customers. (Huang et al., 2015). Research experts stated that the importance of immersive technology underlies the positive impact it has on a user's perception of the virtual environment (Peukert et al., 2019, Slater and Wilbur, 1997). Sotiriou and Bogner (2008) point out that the use of AR and VR application significantly enhances the interaction and motivation of a consumer.

3 Methodology

The literature review on the role of immersive technology in the tourism and hospitality industry provides an understanding of relevant literature on the topics of immersive technology, consumer behavior, immersive marketing and generational management. The literature review portrays that there is a need for further primary research on the topic of immersive technology in the tourism and hospitality industry as there is not an adequate amount of existing academic literature relating directly to the topic. Therefore, the topic needs to be further analyzed to provide a clear understanding of the relationship between immersive technology and the tourism/ hospitality industry. Conducting primary research will add credibility to the current literature reviewed and aid in providing comprehensive knowledge through data analysis on the research questions.

3.1 Aim

The main aim of this thesis is to find the effects immersive technology has on the hospitality and tourism industry and customer behavior in order to identify the influence immersive technology has on purchasing intentions, booking behaviors, customer experience and customer satisfaction. To achieve this aim, the difference between customers' traditional purchasing methods vs. purchasing methods will be compared.

3.2 Research Design

The research design is a method used in this bachelor thesis to gather data and carry out data analysis and interpretation (Zhang et al., 2017). There are three different types of research methods: qualitative, quantitative, and mixed methods. The qualitative research method is used to gather first-hand data in the form of interviews and questionnaires in order to understand the respondent's ideas and perceptions (Rahi, 2017). Quantitative research is a method used to collect information based on quantitative data such as surveys, polls and existing statistical data (Rahi, 2017). The mixed research method involves a combination between quantitative and qualitative research in order to gather in-depth information which

can be used to interpret findings. For the purpose of this bachelor thesis study, the mixed research approach is the most suitable and an online as well offline survey will be constructed to obtain preliminary data. The different types of surveys to collect data include in-person interviews, telephone interviews as well as online and offline surveys (Zhang et al., 2017). Conducting online surveys has become an efficient strategy for researchers to collect raw data. Online surveys have many great benefits as they are cost effective, easy to use, accelerate response time and provide the possibility to efficiently analyze data (Alam et al., 2014). However, there a still some disadvantages that could occur when conducting online surveys such as having bias responses, sampling issues and the lack of accurate and honest answers. Conducting interviews is a useful approach to collect primary data and accumulate additional information and insights on the subject related to the study (Zhang et al., 2017).

3.3 Unit of Analysis

Unit of analysis can be defined as the subject which a researcher is analyzing in the study, or the entire entity being studied (Kumar, 2018). The unit of analysis consist of the qualities of objects/ people being measured and studied.

The units include but are not limited to:

- Individual's
- Groups
- Organizations
- Data Series
- Countries
- Institutions
- Technologies

The units of analysis which will be identified and studied for this thesis are immersive technologies and their effects towards the tourism and hospitality industries as well as the influence which immersive technologies have on an individual's behavior. These units will be

analyzed to determine the impact on the purchasing intentions, booking behaviors, customer experience and customer satisfaction.

- The technologies to be analyzed are augmented reality and virtual reality and how they can be used as a marketing tool as well as an interaction tool.
- The individual's that will be analyzed in the study are tourism and hospitality customers/ consumers who have used the above-mentioned technologies throughout their purchasing processes. The other set of individuals analyzed consist of those in the tourism and hospitality industry who implement such technologies.
- The organizations analyzed are those within the tourism and hospitality industry.

3.4 Participants

To obtain an overview on the role immersive technologies have on the tourism and hospitality industry, the survey responses were limited by filtering respondents through only accepting those who are familiar with immersive technologies. The selection of survey participants included a sample size of 134 respondents which was not targeted towards a specific demographic therefore filtering strategies were applied to the first question of the survey. In terms of interviewees, the researcher selected experts within the field of immersive technologies to acquire detailed information on the topic of immersive technology implementation from credible sources.

Survey Part 1: Introduction & Demographic
Q1: Are you familiar with immersive technologies such as augmented reality, virtual reality and mixed reality?
This question helps to identify the credibility of responses for immersive technology. By using this disqualifying question, it can better assess the participants credibility, knowledge and experience when proceeding the survey.
Q2: Please indicate your gender
Gain insight of participants gender demographic
Q3: Please select your age category
As seen in chapter 2.4, to have an overview of age characteristics within sample group of different generations.
Q4: What is your highest level of education?
Indicates the educational background of the participants.

Table 7: Reflection on survey respondent's demographical background

To successfully understand the importance on the role immersive technology has on the hospitality and tourism industry, the purpose of a disqualified question was able to screen out respondents who do not meet the eligibility criteria. After collecting demographic information about the sample size of interest, the following section of the survey will gather information from respondents regarding their involvement and familiarity of immersive technologies.

Part 2: Familiarity with immersive technology
Q5: How often have you used immersive technologies?
Understanding how often the participant used immersive technologies provides valuble information to assess potential adoption and use of immersive technologies.
Q6: How did you find out about immersive technologies?
Provides information of how the participants learn about the different type of immersive technologies and what sources of information is the most effective.
Q7: Which of these immersive technology tools are you familiar with or have engaged with?
As portrayed in chapter 2.1, this question focuses on identifying the level of knowledge and experience the respondents have with immersive technologies.
Q8: What was the purpose of your most recent interaction with immersive technologies?
With reference to chapter 2.2, this question implies the specific use cases and applications of immersive technologies. This information is useful to assess the participants familarity and importance of using immersive technologies.
Q9: Which immersive technologies have you used? (You may check more than one box)
Following the purpose of most recent interaction with immersive technologies, it is important to identify which type of immersive technologies the participants are familiar with.

Table 8: Reflection of survey respondents' familiarity on immersive technology information and background

The first and second section of the survey includes the demographic information of the respondent as well as the familiarity with immersive technologies. The third section of this survey elaborates on the respondent's experience with immersive technologies within a specific industry.

Part 3: Industry-specifc use
Q10: What industry are you in?
Obtain information of participants professional background and/or area of expertise.
Q11: Has your company or the company you work for adopted virtual or augmented reality?
This question is designed to understand the level of adoption within the participants company or workplace.
Q12: Have you ever used immersive technology related to hospitality or tourism industry?
This question indicates whether the participants have used immersive technologies in the context of hotel bookings as well as travel and tourism experiences. With reference to chapter 2.5.2, this question provides information about the participants immersive experience using tools and applications related to the hospitality and tourism industry.

Table 9: Reflection on industry-specific use of survey respondent

After examining the respondent's industry specific use on immersive technologies, providing a more comprehensive understanding of the use of immersive technologies across different industries. With support to literature, it can help identify the differences in the adoption and use of immersive technologies and expand on the topic on how these technologies are evolving and impacting different industries.

Part 4: Perception and opinion
Q13: Are you more likely to buy a product if you can try it on/visualize it virtually prior to your purchase?
The purpose of this question is to collect information about the influence virtual product visualization has on the participants/consumer behaviour.
Q14: Are you more likely to book a hotel if you can virtually tour the hotel prior to your stay?
This question focuses on understanding the respondents preference and behaviour when it comes to virtually tour a hotel. Additionally, the response can suggest the importance of hotel tours on increased hotel bookings and customer satisfaction.
Q15: Would you use AR to navigate around hotel premises or a troust destination?
As in Chapter 2.5.2, this question will measure the interest and willingness participants have in using augmented reality for navigational purposes.
Q16: Do you think the use of AR and VR could eventually replace conventional booking methods?
As shown in Chapter 2.2.4, the participants provide information about the perceived benefits and challenges of AR and VR for booking purposes. Furthermore, it indicates whether the participants believe AR and VR could replace traditional booking methods, this may suggest that these immersive technologies have the ability to transform the booking process and improve the customer experience.
Q17: In your opinion, where do you see VR tools providing the greatest added benefit in the hospitality and tourism industry?
This question is focused on understanding the participants perspective of the greatest added benefit of VR tools of different sections of the hospiatlity and tourism industry
Q18: In your opinion where do you see AR tools providing the greatest added benefit in the hospitality and tourism industry?

Like Q17, this question focuses on understanding the participants perspective of the greatest added benefit of AR tools of different sections within the hospiatlity and tourism industry.
Q19: In which of the following categories do you think VR increases efficiency?
This question aims to focus on the participants perspective on different categories in which VR could potentially increase efficiency
Q20: In which of the following categories do you think AR increases efficiency?
Following question 19, this question aims to focus on the participants perspective on different categories in which AR could potentially increase efficiency

Table 10: Reflection on survey respondents' personal perspective and opinion on immersive technologies

After examining the respondent's personal perspective on the capabilities of immersive technologies and asking the respondents to evaluate on the impact immersive technologies has in various fields of expertise, respondents are given the opportunity to evaluate based on their subjective opinion in combination with their personal experience (if applicable).

Alongside the quantitative survey, the interview conducted with experts in the field of immersive technology (Franco Lanfur and Badal Dixit), were grouped into the same categories with an additional section of the interview conducting the outlook of immersive technology.

- Demographics
- Industry-specific use
- Personal perspective and opinion/Personal experience and opinion
- Future outlook

Interview Part 1: Demographics
Q1: How old are you?
Faciliates generational cohort
Q2: What is your Gender
General insight on interviewee's gender
Q3: What is your nationality
Provides insights on cultural background
Q4: What is your level of education?
Provides information on educational background

Table 11: Reflection on interviewees demographical background

The first section of this interview gathers information about the interviewees demographical background.

Part 2: Industry-specific use
Q5: Could you walk me through your journey within the field of immersive technology?
This question is designed to determine how the interviewee has progressed in their career over time, highlight their accomplishments and achievements within the field of immersive technology.
Q6: Does your organization currently make use of or plan to implement immersive technologies in future operations? If currently being utilized what for, and if in plan when do you expect to roll out the implementation of immersive technologies?
To further support chapter 2.2 of the literature review, this question focuses on the adoption implementation of immersive technology.

Table 12: Reflection on interviewees industry-specific use of immersive technology

Alongside the interviewees demographics, the second section of the interview concentrates on the interviewees industry-specific use with immersive technologies.

Part 3: Personal perspective and opinion
Q7: From a professional perspective what are some marketing strategies through immersive technologies which could be used to influence human behaviour in terms of purchasing intentions and decision making?
With reference to chapter 2.5, this question further supports the understanding of the influence immersive technologies have on a consumers' behavior.
Q8: In your professional opinion should immersive technologies be used to create a new sales channel within the hospitality and tourism industry?
This question identifies the importance of implementing a new sales channel using immersive technology, and provides an indication on the potential outcome in the hospitality and tourism industry.
Q9: Do you see added benefit to implementing immersive technologies such as AR or VR throughout the customer booking journey?
Following chapter 2.5.1, the interviewee's is asked about their perspective on the potential benefit of implementing immersive technologies throughout the booking journey.
Q10: Where in the customer journey do you believe immersive and multisensory technologies are best applied? Pre-purchase, purchase or post purchase.
As seen in chapter 2.1, this question aims to assess the interviewee's perspective on identifying the purchasing stage of the customer journey which best benefit from immersive technologies.
Q11: Which type of immersive technology do you think is the most suitable for the use of marketing the tourism and hospitality industry as well as guiding the customer journey?

This question supports Chapter 2.5.2 by identifying and understanding which types of immersive technologies are most effective for marketing and guiding customers within the hospitality and tourism industry.
Q12: Do you think immersive technologies will become a standard practice in the industry or remain a niche? If you think it will become a mainstream practice which technology do you believe will become mainstream first AR or VR.
This question provides insights into how the hospitality and tourism industry may evolve in the future from an expert point of view. Additionally, it determines which type of immersive technology could potentially become mainstream in the future.
Q13: From your personal experience with multisensory/ immersive technologies what could you suggest in order to mitigate the many challenges of immersive technology?
As seen in Chapter 2.2.4, this question was designed for the interviewee to apply their personal experiences with immersive technologies, including any challenges they may have encountered in their use. Additionally, their suggestion provides valuable information to further support chapter 2.2.4
Q14: Does immersive technology aid in driving brand awareness and customer engagement in the hospitality and tourism industry?
This question was designed to identify whether immersive technology is effective in capturing the attention of customers, promoting brand awareness, as well as increasing user engagement.

Table 13: Reflection of interviewees personal perspective and opinion

The third section of this interview captures the interviewees personal perspective and opinion on immersive technologies in areas of consumer behavior, customer purchasing journey and marketing alongside the possible strengths, weaknesses, opportunities, and threats.

Part 4: Future outlook
Q15: Do you believe that the tourism and hospitality industry will be part to the uprising of the metaverse? If so, what influence or impact will the metaverse have on a hotel guests' experience?
With this question, the interviewee is asked to reflect on the potential adoption of the metaverse along with the opportunities and challenges associated with it.
Q16: Do you see immersive tourism as a threat or an opportunity to the tourism and travel industry? As it replicates the feeling of physically exploring a destination without the need to travel. (Mental travels)
The focus of this question is the future outlook on immersive travel and tourism. This question unfolds whether the interviewee perceives immersive travels as a threat or opportunity to the traditional tourism and travel industry.

Table 14: Reflection of interviewees outlook on immersive technology and metaverse

Section four of this interview considers the future outlook of the metaverse within the tourism and travel industry. It further elaborates on the threats and challenges associated to the uprising of the metaverse.

4 Summary and interpretation

As discussed in the chapter above, the research findings were examined in-depth and compared with another along with existing literature. The following sections of this thesis will include subchapters providing a detailed examination of the results obtained from both the quantitative and qualitative research.

4.1 Survey and Interview participants

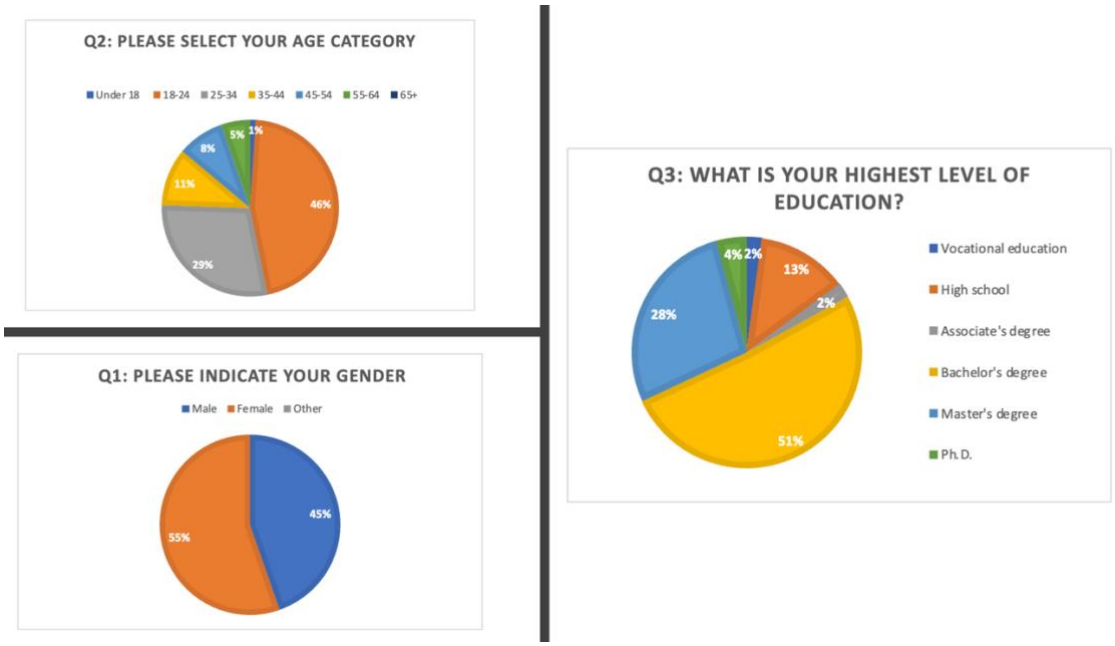
The quantitative data for the research study was collected through online surveys as part of the research design. The qualitative data on the other hand was collected by interviews with experts in the field of immersive technology. The survey was made publicly available to obtain a diverse sample of participants, though the survey included a screening question at the beginning to ensure that participants were eligible to conduct the survey. The survey was accessible via the platform "SurveyMonkey" for three weeks and participants received the survey invitation link via email, WhatsApp, Facebook groups and LinkedIn. Out of 134 participants, 24 participants were disqualified from the survey by selecting the answer choice "No, I am not familiar with immersive technologies and have not used any of them". One of the interviews was conducted via phone and the other interview was conducted via email due to the interviewees time constraints.

The interviewees selected for the interview have made significant contributions to the field of immersive technology. The first interviewee is Badal Dixit, a 42-year-old male from India. Badal holds a Bachelor of Engineering in information technology and is the company founder of Pearl Quest Interactive based in Dubai, United Arab Emirates. Badal has established Pearl Quest Interactive as a leading player in the immersive technology industry. The second interviewee is Franco Lanfur, a 31-year-old male from Austria. Franco holds a Bachelor of science degree and is the company founder of VARS, based in Vienna. With Franco's expertise, he has been successfully creating innovative immersive technology applications and experiences.

4.2 Summary and interpretation of survey and interview questionnaire

Survey Block A: Demographics

This section explores the demographics of the survey participants. With support of literature to generational management and factors influencing consumer behavior.



Graph comparison between gender, age, and educational demographic

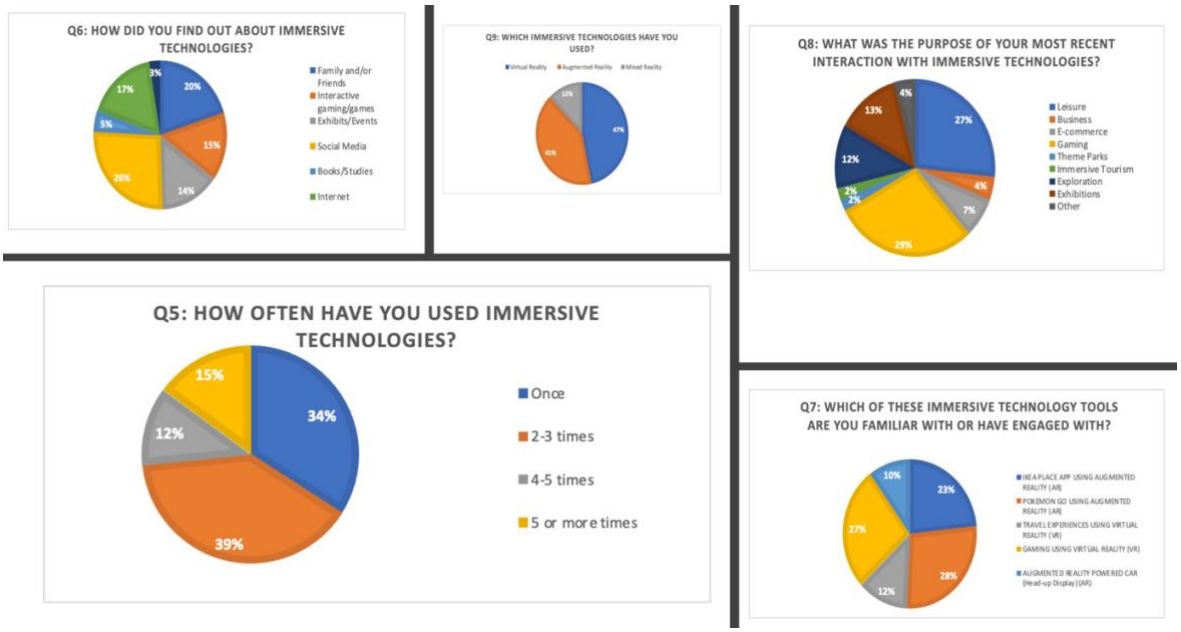
According to the survey data, it is evident that 55% of survey participants are female and 45% are male. Survey question 2 indicates the age demographic of the participants, 46% of contributors are aged between 18 to 24, which represents majority of respondents. Further, the survey data reveals that 29% of the participants fall between the age 25 and 34 years, and 11% of the survey participants aged between 35 and 44. Additionally, the survey data indicates that 8% of participants contribute to the age demographic between 45 and 54 years of age. The minority of participants fall under the age demographic 55 and 64 with 5% and 1% of survey participants is aged under 18. Despite the lack of knowledge and familiarity of the topic, the age demographic 65+ has attempted to participate in the survey, however, was disqualified from the survey resulting to gaps in the age demographic data. Survey question

3 reveals the education demographics of the survey participants, indicating 51% of participants hold a bachelor's degree, 28% of participants hold a master's degree and 13% of participants hold a high school diploma. The survey found that the minority among the participants hold a Ph.D with 4%, Associate's degree with 2% and vocational education with 2%.

It is apparent from the survey data that majority of participants are women (55%) between 18 and 24 years of age. Additionally, majority of participants hold a bachelor's degree (51%) which may be due to the researchers personal and professional network contributing to a higher proportion of participants holding a bachelor's degree.

Survey Block B: immersive technology information

This section examines the participants familiarity and use of immersive technologies to further understand the level of expertise the participants have in this topic and identify potential biases and limitations in the data as participants with different levels of expertise have different opinions and experiences.



Graph comparisons between frequency of use, source of information, familiarity with immersive technology tools, purpose of interaction and use of immersive technology.

In this section, the above illustrated graphs are further discussed and analyzed in detail. Survey question 5, represents the participants frequency of use in immersive technologies with 39% of participants engaging with immersive technologies 2 – 3 times and 34% of participants only engaging with immersive technologies once. The data further indicates that 15% of survey participants use immersive technologies 5 or more times and 12% of the survey participants claim to use immersive technologies 4 – 5 times. Survey question 6, reveals the source of information to understand how the participants first learned about immersive technologies with majority of participants first interference being "Books/Studies" with 26% and 20% of participants selecting "Family and/or Friends". Further, 17% of participants found out about immersive technologies through the "Internet" and 15% through "Interactive gaming/games". 14% of participants learned about immersive technologies by attending "Exhibits/Events" and 5% of participants found out about immersive technologies through "Family and/or Friends". 3% of participants selected "Other" which included: Work, YouTube, and immersive development. Survey question 7, portrays the participants familiarity and use of immersive tools and applications illustrated by images. 28% of participants are familiar with the AR application "Pokémon Go", 27% of participants selected "Leisure", and 23% of participants are familiar with the AR application "IKEA PLACE". The minority of participants indicates 12% familiarity in "Travel experiences using VR" and 10% of participants are familiar with an augmented reality powered car. Survey question 8 identifies the purpose of the participants interaction with immersive technologies. The data displayed on the graph reveals that majority of participants' purpose is gaming with 29% and 13% of participants is exhibitions. 12% of participants' purpose of recent interaction is exploration and 7% of participants state their recent interaction was "E-commerce". 4% of participants selected "business" and 4% of participants chose "Other" which included: Personal use, School Experiment and Career development. Further, 2% of participants selected "Theme Parks" and the other 2% selected Immersive tourism. Survey question 9 displays the types of immersive technologies used among the participants with 47% of participants stating, "Virtual Reality",

41% of participants selecting “Augmented reality” and 12% of participants using “Mixed Reality”.

The quantitative results of the survey data reveal that majority of participants (39%) have a moderate level of expertise using immersive technologies at least 2 - 3 times. The survey reveals that the respondents main use of AR and VR technologies are gaming applications. Upon analysis of the survey responses, it can be highlighted that AR and VR technologies are not yet being used by the respondents to its fullest potential to provide the maximum added benefit for the end user. If users are more aware of the benefits of AR and VR, it could help them do more in terms of exposure and time efficiency.

Interviewee	**Interview Question 7: *From a professional perspective what are some marketing strategies through immersive technologies which could be used to influence human behaviour in terms of purchasing intentions and decision making?***
Dixit	• …. VR experiences can be leveraged to create highly engaging and interactive brand experiences, allowing potential customers to virtually explore products, services, or environments in an immersive manner. • …foster a deeper emotional connection with the brand, leading to increased purchasing intent. • AR applications, on the other hand, enable customers to visualize products in their real-world context, providing them with a better understanding of how the product might suit their needs and preferences. • ….ultimately driving higher conversion rates and more informed purchasing decisions.
Lanfur	• Displaying products using AR, to show how they look can help people decide to purchase them. • ….with sunglasses people could use face-recognition apps or filters to try on different models of glasses before purchasing them online if they don’t want or can’t try them physically.

Table 15: Q7 Interview response – Personal Perspective and opinion

As stated by Dixit, virtual reality (VR) experiences have the potential to create highly engaging and interactive brand experiences. By allowing “potential” customers to virtually explore products, services or environments prior to their purchase, VR can provide a more immersive and realistic encounter for the user. This conveys that, VR can foster a deeper emotional connection between the customer and the brand which can lead to an increased purchasing intention. Dixit also states that using augmented reality (AR) applications, enables users to visualize products in the real-world context which enhances visualization. This strategy implies that costumers are able to make better informed purchasing decision and drive higher conversion rates when establishing stronger connections with their target audience. Similarly, Lanfur states that augmented reality (AR) is a useful tool in the purchasing process. This signifies that visual representation has a significant impact on a customer's purchasing decision, particularly for products where visual appearance is important such as clothing or furniture. Lanfur further elaborates on how virtual try-on experiences can serve as an alternative for those who are unable or unwilling to physically “try on” prior to their purchase. By leveraging augmented reality (AR) technology, customers are able to have a better sense of how a product is expected to look like, helping customers make better informed purchasing decisions. Both interview responses highlight the added benefit of using AR as a marketing strategy to enhance shopping experiences. Accordingly, visual representations of products and enabling try on experiences is a strategic marketing approach to increase a customers confidence and satisfaction before and after the purchasing process, leading to better informed buying decisions of a product/service.

Interviewee	Interview Question 8: In your professional opinion should immersive technologies be used to create a new sales channel within the hospitality industry?
Dixit	• …. By giving VR tours of hotels, resorts, or event spaces, potential guests can preview their stay and make more informed decisions about their reservation, leading to increased bookings and customer satisfaction. • …enables you to deliver a much more personalized experience in the hospitality setting, such as virtual concierges or interactive room service menus, which can enhance customer engagement and drive additional revenue.
Lanfur	• Yes.

Table 16: Q8 Interview response – Personal Perspective and opinion

As highlighted by Dixit, virtual reality tours of hotels, resorts, or event spaces provide customers with value added benefit. By providing customers with immersive tours, they can get a view prior to their stay and make better informed decisions when making a reservation or comparison to another hotel or event etc. Ultimately, it can result in increased bookings and higher levels of customer satisfaction as they are able to have a realistic expectation prior to their arrival/stay. Further, Dixit emphasizes the potential of augmented reality (AR) to elevate the hospitality experience. With augmented reality hospitality experiences, customers are able to experience personalized services such as virtual concierges or interactive room service menus. Correspondingly, Lanfur points to agree with Dixit on the same interview question. Further, such immersive technology implementations can offer additional revenue streams as well as new sales channels to the hospitality industry to enhance the overall guest experiences and contribute to potential growth in sales volume.

Interviewee	**Interview Question 10: Where in the customer journey do you believe immersive and multisensory technologies are best applied? Pre-purchase, purchase, or post purchase?**
Dixit	• Pre-purchase stage
Lanfur	• ….immersive technologies could be used post purchase (booking) to sell other products.

Table 17: Q10 Interview response – Personal Perspective and opinion

Interview question 10 indicates two different responses. Dixit's response to interview question 10 suggests that he believes that immersive technologies are best applied in the pre-purchase stage of the customer journey. This may signify that he views these technologies as effective tools before the customer makes a purchasing decision. On the other hand, Lanfur suggests that immersive technologies are best applied in the post-purchasing stage of the customer journey. This may indicate that after a purchase has been made, immersive technologies are best applied to promote additional products or service to customers. This can contribute to a greater post-purchase satisfaction, enhance the overall purchasing experience as well as generate increased revenue for the business.

Interviewee	**Question 11: Which type of immersive technology do you think is the most suitable for the use of marketing the tourism and hospitality industry as well as guiding the customer journey?**
Dixit	• Virtual Reality
Lanfur	• …For marketing, I think AR through Social Media is the most suitable technology, since a marketing campaign using an AR Filter on Social Media can easily get viral.

Table 18: Q11 Interview response – Personal Perspective and opinion

Based on the responses, it can be inferred that Dixit believes that virtual reality (VR) is the most suitable immersive tool for marketing the tourism and hospitality industry. With reference to interview question 7, Dixit's response further supports his statement of VR experiences to create highly engaging and interactive brand experiences allowing potential customers to virtually explore products, services, or environments in an immersive dimension. On the other hand, Lanfur believes that augmented reality (AR) through social media is the most suitable technology. This may suggest that leveraging AR filters on social media can generate viral marketing campaigns which can attract customers and engage them simultaneously.

Interviewee	**Interview Question 9: Do you see added benefit to implementing immersive technologies such as AR or VR throughout the customer booking journey?**
Dixit	• ….VR may act as a much better immersive technology since it can 'transport' the prospect into the hotel campus, and it is a first-hand realistic experience of how the hotel looks or feels • Then the purchasing decision is seamless if the customer already knows what they are getting. • ….Creating a virtual tour where the hotel room is visible in 360-degree, its views and facilities can be seen • beforehand, almost as if you're there – is a surefire way of ensuring a smooth sale and no conflicts post-sales.
Lanfur	• No.

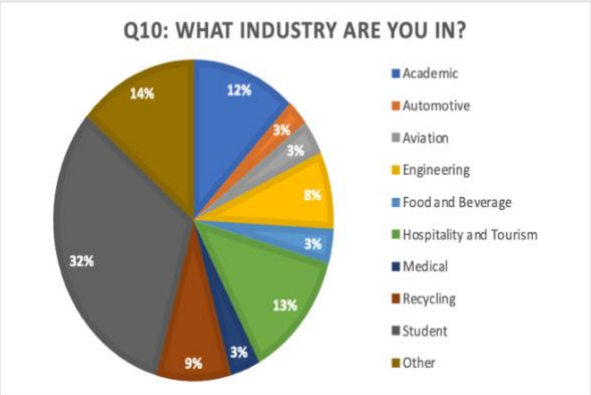
Table 19: Q9 Interview response – Personal Perspective and opinion

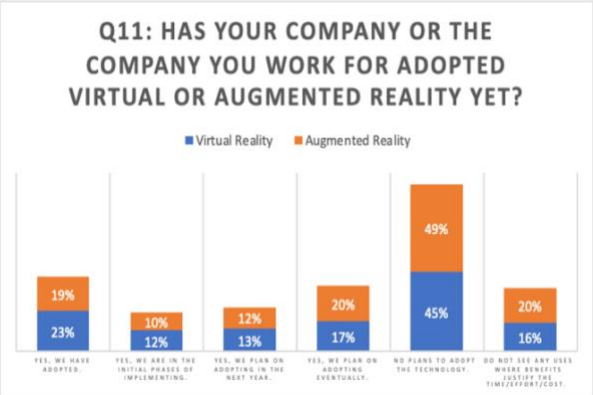
In response to interview question 9, Dixit acknowledges the added benefit of implementing immersive technologies such as augmented reality (AR) and virtual reality (VR) throughout the customer booking journey. Additionally, he highlights the advantages of virtual reality in

creating a more immersive experience by “transporting” the prospect into the hotel campus, providing a realistic sense of the hotel’s look and feel. Further, Dixit emphasizes the importance of creating virtual tours that showcase the hotel room in a 360-degree view, allowing customers to explore the hotel’s views and facilities prior to their stay. To further elaborate on Dixit’s response, the implementation of immersive technologies in the customer booking journey contributes to a smooth booking journey and mitigates the potential conflict after the point of sale. In contrast, Lanfur believes that there is no added benefit to applying technologies such as AR or VR throughout the customer journey. This opinion may signify that the interviewee doesn’t see the added benefit in implementing immersive technologies within the customer journey to enhance customer experience or engagement.

Survey Block C: Industry-specific use

This section summarizes and interprets the participants industry specific use of immersive technology. This provides valuable insights into the application and effectiveness of immersive technologies within different industries. By understanding how different industries make use of immersive technologies, different trends, challenges, and opportunities can be identified and compared to the overall adoption of the respondent’s respective work industries.





Graph comparison between industry background and adoption of immersive technologies

Survey Question 10 provides an overview of the industries in which the participants are engaged in. It is noteworthy that 32% of participants are students and 14% of participants selected the category "other", which unfolds a range of industries including event management, IT, finance, human resources, design, psychology, creative technologies, insurance, market research, and information technology. Additionally, 13% of participants work in the hospitality and tourism industry, 12% of participant are involved in the academic industry and 9% of participants work in the recycling industry. Further, the data displayed in Graph 9 states that 8% of participants work in the engineering industry and the medical industry is represented by 3% of the survey participants. Additionally, 3% of participants are involved in the food and beverage industry, 3% of participants are in the aviation industry and the automotive industry contributes 3% of the data collected on participants' industry.

Survey question 11 represents the extent to which immersive technology has been adopted in the participants organization or workplace. It is evident that 23% of participants have stated that their company has adopted "Virtual Reality" and 19% of participants selected "Augmented Reality" for the same question. 12% of participants have selected "Virtual Reality" and 10% of participants have selected "Augmented Reality" for the question "Yes, we are in the initial phases of implementing". Further, 13% of participants have indicated that their organization or workplace plans to adopt "Virtual Reality" in the next year and 12% of participants have selected "Augmented Reality" for their adoption plan within the same timeframe. 17% of participants have selected "Virtual Reality" and 20% of participants have selected "Augmented Reality" to the question "Yes, we plan on adopting eventually" within their organization/workplace. In response to the question "Yes we plan on adopting eventually" 17% of participants have chosen "Virtual Reality" and 20% of participants selected "Augmented Reality". The majority of participants stated that their organization/workplace has no plans to adopt the technology with 49% of participants selecting "Virtual Reality" and 45% of participants selecting "Augmented Reality". 16% of participants indicated that they don't see any uses where benefits justify the time or cost of "Virtual Reality" and 20% selected "Augmented Reality" in response to the same question.

Based on the data presented in survey question 10, it is evident that the majority of participants are students. This observation may be due to the researchers age demographic as well as their private and professional network. The survey data also reveals that 14% of participants selected “other” as the closest available option. By understanding the industries in which participants are involved in, the researcher can gain valuable insights into the level of adoption of immersive technologies within their respective industry and workplace. According to the data portrayed in survey question 11, 42% of participants adopted both virtual reality (VR) and augmented reality (AR) within their company and workplace. This could imply that the respective companies implement immersive technologies for various work-related purposes including immersive training, customer experience, product presentation, sales, and a variety of other use cases. 49% of participants have stated their organization/workplace has no plans on adopting immersive technology both virtual reality (VR) and augmented reality (AR). This may indicate that the high cost and investment required for implementing immersive technologies can be a hindering factor for certain organizations/ companies considering of adopting them. Another factor of companies not considering adopting immersive technologies may be understatement of the added benefit and capabilities immersive technologies can have on various areas of a company.

Interviewee	Interview Question 5: Could you walk me through your journey within the field of immersive technology?
Dixit	• …Founded PearlQuest Interactive, a boutique technology firm based in Dubai, in 2013. • …generating new ideas and crafting solutions for clients, bringing them closer to their marketing and execution goals. • …avid technology enthusiast & evangelist. • …spoken at Gitex, ISE (Amsterdam), Future Technology Week, Infocomm, IoTx, and Intercon conferences.
Lanfur	• I first got in touch with VR and AR as tools for visualizing architecture projects during my architecture studies at the university • …realized the huge potential of these technologies not only for architecture but for different fields as well. • …in tourism by using VR or AR and reconstructing ruins, I could show how that place used to look like in the past.

Table 20: Q5 Interview response – Industry specific use

The interview response of Badal Dixit, founder of PearlQuest Interactive clearly indicates that he has experience and expertise in the field of immersive technology since 2013. Further, Dixit is actively involved in generating new ideas as well as creating solutions for clients which implies that he is an avid technology enthusiast that is innovative with solutions. Additionally, Dixit has spoken at various tech conferences such as Gitex and ISE (Amsterdam) and is recognized as a knowledgeable speaker in the field of immersive technology. According to Franco Lanfur's response, it is evident that he became familiar with immersive technologies during his studies in architectural projects. Lanfur recognized huge potential in immersive technologies for different industries as well. Further, Lanfur elaborates on the use of AR and

VR in tourism, particularly in the reconstruction of ruins. This indicates that he sees the significant value in leveraging these immersive technologies to create immersive tourism experiences, allowing users to visualize and experience historical sites in their former state.

Interviewee	**Interview Question 6: Does your organization currently make use of or plan to implement immersive technologies in future operations? If currently being utilized what for, and if in plan when do you expect to role out the implementation of immersive technologies?**
Dixit	• …develop interactive content and immersive experiences like digital games, virtual reality, and sensor integration. • …company has done hundreds of projects and worked for brands like Samsung, ExxonMobil, Saudi Aramco & DHL • The mission of PearlQuest is to help clients with solution development in interactive experiences using technology. • …creating unique, next-generation creative solutions engaging customers, increase their top-line sales and also find innovation in operational strategies.
Lanfur	• …design and develop AR and VR apps for other companies.

Table 21: Q6 Interview response – Industry specific use

The interview responses of question 6 further elaborate on the current or future implementation of immersive technologies within the organization. According to Dixit's response, PearlQuest Interactive specializes in the development of interactive content as well as immersive experiences such as digital games, virtual reality, and sensor integration. This indicates that Dixit's company already makes use of immersive technologies in their operations and have an extensive client portfolio like Samsung, ExxonMobil, Saudi Aramco and DHL. Further, Lanfur's response to the interview question also indicates that his company

VARS make use of immersive technology as the company specializes in the design and development of AR and VR apps for other companies. By offering these services, it is evident that VARS is a service provider, helping businesses leverage AR and VR to enhance customer experiences.

Interviewee	Question 12: Do you think immersive technologies will become a standard practice in the industry or remain a niche? If you think it will become a mainstream practice which technology, do you believe will become mainstream first AR or VR.
Dixit	• …become a standard practice in various industries, including hospitality, tourism, retail, and entertainment, due to their potential to enhance user experiences and drive customer engagement. • …businesses increasingly recognize the value of offering personalized and interactive experiences, the adoption of these technologies is expected to grow • …augmented reality is more likely to become mainstream first.
Lanfur	• AR will become a standard.

Table 22: Q12 Interview response – Personal Perspective and opinion

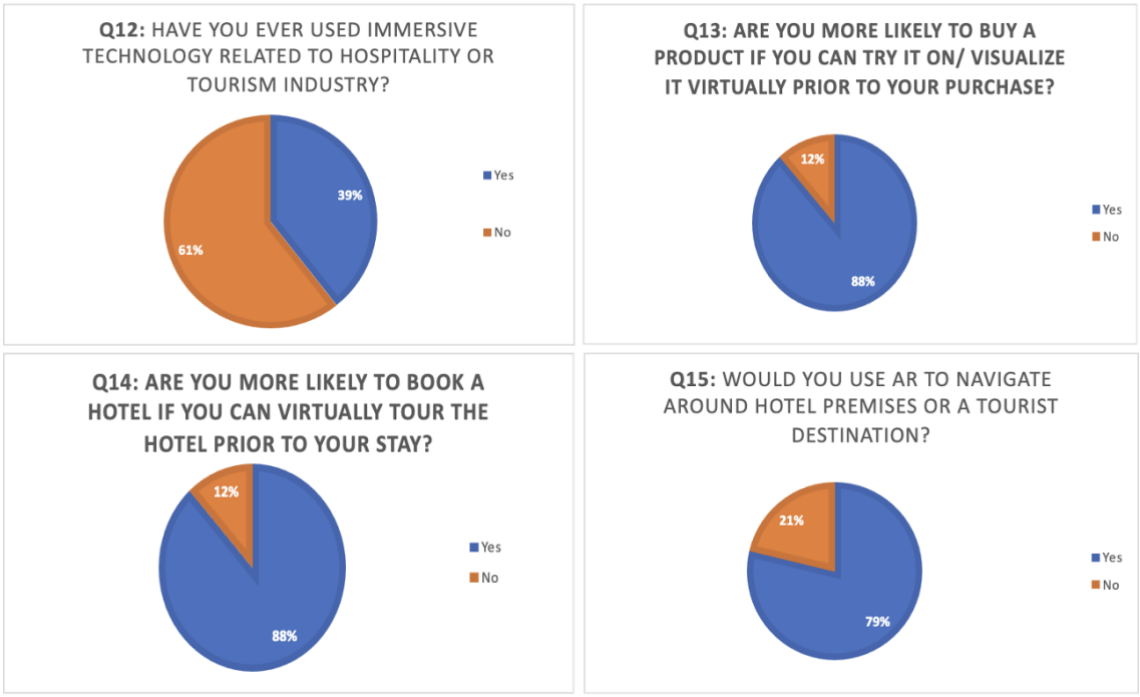
As indicated by Dixit, immersive technologies such as AR and VR are expected to gradually become a widely accepted practice in various industries such as tourism and retail. This signifies that as businesses understand the value of providing personalized as well as interactive experiences, the adoption of these immersive technologies is predicted to grow. Dixit further implies that although both AR and VR are expected to become widely accepted, AR is more likely to achieve a widespread adoption before VR. With reference to literature, this could be due to factors such as accessibility of augmented reality technology which blends digital elements with the real world, which makes it more adaptable and applicable to a wider

range of different industries. Correspondingly, Lanfur's response to this question expects the same outcome towards augmented reality technologies.

As seen on the tables above, both interviewees outlined their journey within the field of immersive technology and currently make use of immersive technologies within their companies. In contrast to the survey participants, it can be argued that the knowledge, expertise and understanding of such technologies are limited by the average person who is not an expert in the field of immersive technology. Nevertheless, it is evident that the exposure of immersive technologies tools and applications are predominantly becoming more mainstream as companies design and develop AR and VR applications/tools with immersive content and experiences.

Survey Block D: Personal experience and opinion

This section explores the different applications of immersive technologies and personal opinions as well as the potential influence immersive technologies could have on respondents in the context of the tourism and hospitality industry.



Graph comparison between use of immersive technologies in the hospitality and tourism industry, product visualization, virtual hotel tour and AR navigation.

As demonstrated in survey question 12, 39% of participants have reported using immersive technologies related to tourism and hospitality. While majority of participants stated that they have not used immersive technologies related to tourism and hospitality with 61%. In survey question 13, it is evident that 88% of participants are more likely to purchase a product if they can virtually visualize prior to their purchase, while 12% of participants selected “No” as their answer. In survey question 14, it is seen that 88% of participants are more likely to book a hotel if they can virtually tour the hotel prior to their stay and 12% of participants selected “No” as their answer. As portrayed in survey question 15, it is apparent that 79% of participants would use augmented reality (AR) to navigate around hotel premises or a tourist destination and 21% of participants indicated not to use AR for navigational purposes.

According to the survey data, majority of participants have not used immersive technologies (61%) related to the tourism and hospitality industry, which may be due to the different preferences that influence one's choices such as, the lack of awareness and interest, finance

constraints, traditional mode preferences and more. It is particularly noteworthy, that survey questions 13 and 14 reflect the exact same survey data response, highlighting a consistent pattern among participants in response the question being addressed. This suggests that there is a strong alignment in preferences and behavior of the participants towards the use of virtual reality (VR) and augmented reality (AR) prior to one's purchasing decision. To further elaborate, the data in graphs 13 and 14 implies that participants prefer to virtually visualize a product or service prior to their purchase. The underlying demand and interest in using immersive technologies indicate a positive inclination towards immersive technologies within the hospitality and tourism industry. However, it is important to acknowledge that despite the positive inclination towards immersive technologies within the hospitality and tourism industry, there are still factors that are hindering the widespread utilization/application of such technologies. One of the key factors is the preferences for traditional travel and hospitality experiences amongst individuals.

Interviewee	Interview Question 13: From your personal experience with multisensory/ immersive technologies what could you suggest to mitigate the many challenges of immersive technology?
Dixit	• …give significance to usability, accessibility, user comfort, and safety. • Crafting intuitive user interfaces and accommodating various devices, such as smartphones, tablets, and XR headsets, can assert that the technology is user-friendly for a wide range of users. • …Minimizing issues like motion sickness, vertigo, and disorientation while raising awareness about real-world surroundings can increase user comfort and safety.
Lanfur	• Trying out VR or AR apps or experiences every now and then could help, since these technologies are developing extremely fast, and things that were impossible a couple of year ago are now possible.

Table 23: Q13 Interview response – Personal Perspective and opinion

In response to interview question 13, Dixit suggests that based on his personal experience with immersive technologies, there is certain measures to be addressed with challenges in such technologies. He states that these measures include prioritizing usability, accessibility, user comfort as well as safety. Further, he elaborates that it can be achieved through the design of intuitive user interfaces that cater different devices such as smartphones, tablets and XR headsets. By making immersive technology easier to use and navigate, it becomes more accessible to a wider range of users. Dixit further highlights the importance of minimizing issues like motion sickness or vertigo while simultaneously raising awareness about the real-world surroundings to enhance user comfort as well as safety throughout immersive experiences. This signifies the importance of taking into consideration usability,

accessibility, comfort, and safety when creating or developing immersive technologies. Furthermore, Lanfur's response to interview question 13 suggests that actively engaging with immersive technology applications or experiences on a regular basis can be beneficial. As immersive technologies undergo rapid development, new possibilities and advancements are constantly emerging. This implies that by regularly trying out new immersive experiences using tools and applications can familiarize users with the latest developments and functionalities offered by these immersive technologies.

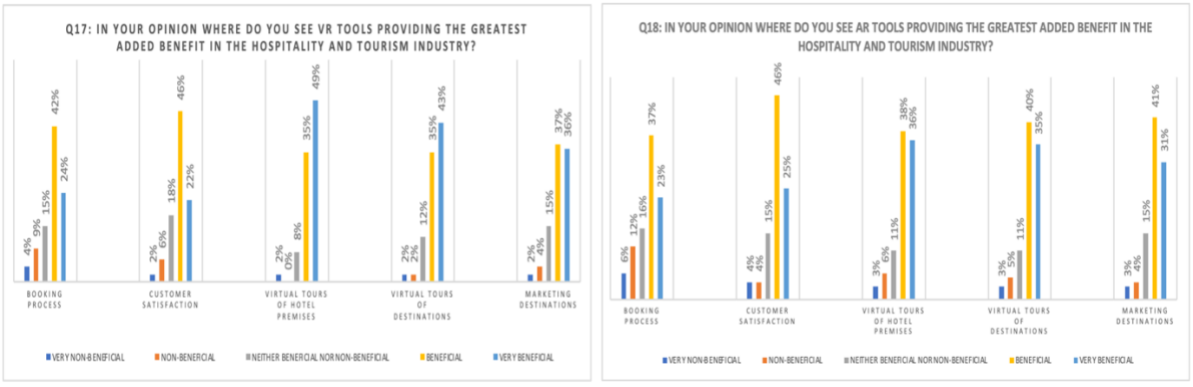
Interviewee	Interview Question 15: Does immersive technology aid in driving brand awareness and customer engagement in the hospitality and tourism industry?
Dixit	• …serves a vital function in promoting brand recognition and fostering customer engagement. • Companies can utilize virtual and augmented reality to develop captivating and customized experiences that attract potential clients and fortify their bond with the brand. • Virtual reality can deliver virtual tours of hotels, resorts, or attractions, enabling customers to examine the offerings before making a reservation. • …can supply guests with real-time information, special offers, or interactive content. • …elevate customer satisfaction, generate positive word-of-mouth, and, ultimately, enhance brand visibility.
Lanfur	• Yes, in combination with social media it helps in driving brand awareness.

Table 24: Q15 Interview response – Personal Perspective and opinion

With response to interview question 15, Dixit suggests that immersive technologies play a crucial role in driving brand awareness and customer engagement within the hospitality and tourism industry. Lanfur suggests that with the help of social media brand awareness can be significantly increased. Further, the use of VR and AR allows companies to create immersive and personalized experiences that capture the attention of potential customers as well as strengthen their connection with the brand. It is also highlighted that virtual reality (VR) has the capability of providing virtual tours of various tourism and hospitality fields which allows customers to explore and evaluate the offerings prior to their booking. Therefore, immersive technologies such as augmented reality and virtual reality offer the opportunity to provide real-time information and interactive content to customers. This indicates that immersive technology or in combination with social media does not only enhance the overall customer experience but also contributes significantly to customer satisfaction, positive WOM, and increased brand visibility.

Survey Block D: Personal experience and opinion

This section examines the potential benefits of virtual reality (VR) and augmented reality (AR) in the hospitality and tourism industry. It explores how virtual reality and augmented reality can provide the greatest added benefit in various aspects of the industry.



Graph comparison between VR and AR providing the greatest added benefit in the hospitality and tourism industry

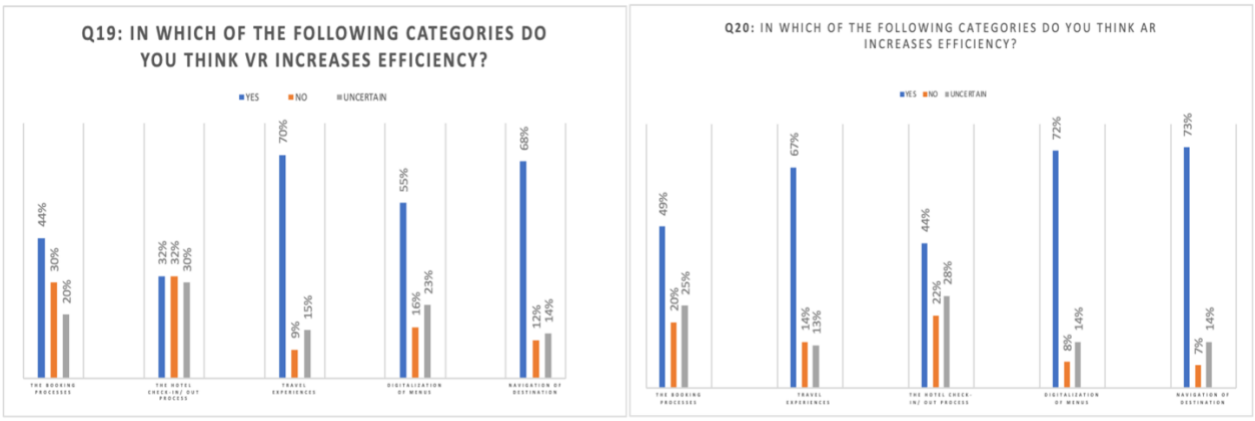
In survey question 17, participants are asked to provide their opinion on where they see VR tools providing the greatest added benefit in the hospitality and tourism industry. 42% of participants stated that they see VR tools providing benefit in the booking process and 24% of participants selected “Very beneficial” in response to the same question. On the other hand, 15% of participants selected “Neither beneficial nor non-beneficial” and 9% selected “non-beneficial” to the added benefit in the booking process. Furthermore, 46% of participants see the benefit of adding VR tools in customer satisfaction and 22% of participants selected “very beneficial” in response to the same question. However, 18% of participants think VR tools contribute to neither beneficial nor non-beneficial, 6% of participants selected “non-beneficial” as their response to VR tools in customer satisfaction and 2% of participants think it is very non-beneficial. Additionally, 49% of participants stated that they see virtual reality as a “very beneficial” tool in virtual tours of hotel premises, while 8% of participants think it is “neither beneficial nor non-beneficial”. In terms of virtual tours for destinations 78% stated that virtual reality is very beneficial or beneficial, and just 4% see virtual reality as a non-beneficial tool for virtual tours of destinations. Furthermore, 73% of participants see that VR tools are very beneficial or beneficial in marketing destinations, and 15% of participants selected “neither beneficial nor non-beneficial” in response to the same question. Additionally, 4% of participants have said that VR tools in marketing destinations is very non-beneficial or non-beneficial. In survey question 18, participants were asked to assess the different areas of the tourism and hospitality industry and where they perceive AR tools provide the greatest added benefit. The data reveals that 60% of participants consider AR to be a beneficial or very beneficial tool and 18% of respondents believe that AR is a non-beneficial tool for the hotel booking process while 16% is neutral. When it comes to customer satisfaction, 71% of participants have stated that AR is a beneficial or very beneficial tool and 8% think of AR to be non-beneficial towards customer satisfaction, the remaining 15% has no input towards the added benefit of AR. Data shows that 74% of participants find AR a beneficial or very beneficial tool for virtual tours of hotel premises and 9% of participants do not think it has any added benefit and the other 11% is neutral. In terms of virtual tours for destinations the results are quite similar with 75% seeing the added benefit of AR and 8% who

believe there is no added benefit furthermore, 11% does not have any stance on the matter. Lastly, 72% sees AR as an added benefit for marketing destinations and 8% sees no added benefit, while 15% remarks no opinion.

Upon analysis of the graphs 17 and 18, conclusions can be drawn when comparing the two. For the first question related to the added benefit of AR or VR in the booking process it is evident that the majority of respondents see a greater added benefit towards the booking process with VR. This could be due to the possibility of booking hotels in a virtual dimension from a remote location. The second question related to the added benefit towards customer satisfaction through AR and VR tools portrays that AR is clearly viewed as a more effective tool towards increase customer satisfaction this is likely due to the ease of implementing AR technologies and using them to generate immersive experiences which can be deemed as more entertaining or interesting. The third section of both questions 17 and 18 regarding virtual tours of hotel premises is the clear leader which indicates that the use of VR glasses or AR applications has a significant impact enabling individuals to simulate an environment prior to their visit. The fourth part of the question has similar results for the same reason, as it is easier to explore a destination within a fully immersive setting than it is through a partially immersive technology such as AR. The experience is much more realistic and beneficial through VR. In terms of marketing a destination, VR also takes the lead, and this is likely correlated to the fact that many destinations are already providing VR services to market their destination through virtual exploration. Based on the results from the sub questions in both survey questions 17 and 18, it is evident that majority of participants indicated that they perceive no added benefit using AR as a tool for the hotel booking process. This suggests that participants do not see or are aware of the significant value in using AR technology specifically for the purpose of booking hotels.

Survey Block D: Personal experience and opinion

This section explores the potential of virtual reality and augmented reality technology to enhance efficiency of various functions of the hospitality and tourism industry. Further, this section summarizes and interprets the



Graph comparison between VR to increase efficiency and AR to increase efficiency

As portrayed in survey question 19, participants were asked to evaluate the extent to which Virtual reality (VR) contributes to increased efficiency in different categories. 44% of participants stated that virtual reality (VR) increases efficiency, while 50% of participants expressed uncertainty or disagreed that VR provides increased efficiency in the booking processes. Further, 32% of participants have agreed that VR increases efficiency in the hotel check-in/check-out process, while 62% of participants responded to be uncertain or disagreed to the same question. Additionally, the data indicates that 70% of participants agreed that VR increases efficiency for travel experiences and 24% of participants responded to the question with “no” and “uncertain”. Regarding the digitization of menus, 55% of participants agreed that VR increases efficiency while 39% of participants expressed uncertainty or disagreed. Furthermore, 68% of participants responded with “yes” to VR increasing efficiency in the navigation of destinations, and 26% of participants responded with “no” or “uncertain” to the same question. According to survey question 20, the participants were asked to evaluate the extent to which augmented reality (AR) contributes to increased efficiency in different

categories. It is evident that 49% of participants agreed that AR increases efficiency in the booking process, while 45% of participants responded with uncertainty or disagreement. Regarding the travel experiences, 67% of participants have agreed that AR increases efficiency and 27% of participants have stated to be uncertain or disagree. Further, 44% of participants have said that AR increases efficiency in the hotel check-in/out process, while 50% of participants selected “no” or “uncertain. 71% of participants indicated that AR increases efficiency in the digitization of menus and 22% of participants have responded with “no” or “uncertain”. In the navigation of destinations, it is clear that 73% of participants agree that AR increases efficiency and 21% of participants expressed uncertainty and disagreed in response to the question.

The results of survey questions 19 and 20 provide clear indication that participants consider that AR increases efficiency in various categories. It is particularly noteworthy that the frontrunner for efficiency in “travel experiences” is virtual reality (VR). This observation may suggest that virtual reality (VR) headsets facilitate a more immersive and seamless travel experience, while augmented reality (AR) applications can increase efficiency in other categories such as hotel check-in/out processes or navigation of destinations. This is due to augmented reality’s (AR) ability to overlay digital information onto the physical environment enabling more streamlined and efficient processes such as providing interactive and realistic navigations within destinations and tourist attractions.

Interviewee	**Interview Question 14: Do you believe that the tourism and hospitality industry will adapt to the uprising of the metaverse? If so, what influence or impact will the metaverse have on a hotel guests' experience?**
Dixit	• …the tourism and hospitality industry will likely adapt to the uprising of the metaverse, given its potential to revolutionize digital experiences and create new business opportunities. • …can significantly influence hotel guests' experiences by offering immersive, personalized, and interactive virtual environments. • ...hotels could create virtual lobbies and common areas within the metaverse, allowing guests to socialize, network, or attend virtual events even before their physical stay. • …enable hotels to extend their reach beyond geographical boundaries, potentially attracting new customers and generating additional revenue streams. • …Guests could explore local attractions or plan activities within the metaverse before embarking on real-world adventures.
Lanfur	• I don't exactly understand what is meant with "metaverse". For me is just a marketing term by Meta (Facebook).

Table 25: Q14 Interview response – Future outlook

Following interview question 14, Dixit indicates that the tourism and hospitality industry is expected to adapt to the rising trend of the metaverse, driven by its potential to transform virtual experiences and create new business opportunities. He further emphasizes that the metaverse can have a significant impact on the hotel guests' experiences by providing immersive, personalized, and interactive virtual environments. Further stating that hotels could leverage the metaverse to create virtual lobbies and common areas where guests have

the ability to socialize, network as well as attend virtual events. Additionally, Dixit highlights that the metaverse can enable hotels to extend their reach beyond geographical boundaries. The expansion and reach of a wider customer base can generate additionally revenue streams for hotels. Moreover, the metaverse can empower guests to explore local attractions within the virtual environment enhancing the planning and decision-making process for guests by adding a new dimension to their tourism and hospitality experiences. On the other hand, Lanfur captures a different response to the same question which may indicate that the interviewee expressed discomfort or unfamiliarity with sharing their perspective on this question.

Interviewee	**Interview Question 15: Do you see immersive tourism as a threat or an opportunity to the tourism and travel industry? As it replicates the feeling of physically exploring a destination without the need to travel. (Mental travels)**
Dixit	• …an opportunity than a threat. • To an extent, it can replicate physical venues, although it will take a few years to achieve the fidelity and immersion of a physical experience. • …immersion is only on the visual and auditory level, while a physical experience engulfs all your senses and can't be replaced using current technology.
Lanfur	• I see it as an opportunity to enhance a touristic experience.

Table 26: Q15 Interview response – Future outlook

According to Dixit, the current immersion provided by immersive tourism is limited to the visual and auditory constraints, which highlights that a physical experience of tourism and travel encompasses all the senses. This may signify that understanding the multi-sensory

nature of physical exploration cannot be entirely replaced by current immersive technologies. Further, it can be agreed that both interviewees capture similar views for interview question 15, as they view immersive tourism as an opportunity rather than a threat to the tourism and hospitality tourism. This may be due to enhanced tourism experiences that make tourism related travel more accessible to people with limited constraints. Additionally, it stands out that immersive tourism has the ability to provide extensive business opportunities to create new marketing and sales channels.

5 Conclusion and Recommendations

The main aim of this thesis is to determine the effects immersive technologies have on the hospitality and tourism industry as well as the customer behavior to identify the influence immersive technology has on purchasing intentions, booking behaviors, customer experiences and customer satisfaction. To achieve this aim, the difference between customers' traditional purchasing methods vs. immersive purchasing methods will be compared.

The following key insights and findings have been identified from the results of the survey and interviews conducted. This enables the following conclusions to be drawn:

- Immersive technologies enable customers to thoroughly explore and familiarize themselves with products and services prior to their purchase and this can also significantly benefit the post-purchasing stage by promoting additional products and services to customers.
- Augmented reality is perceived as the ideal tool for navigating through tourism destinations and hotel premises of interest. Virtual reality is perceived to offer a significant added benefit to virtual tours of tourism and hospitality related environments.
- Immersive technologies have been identified as tools and applications that can influence a consumers purchasing behavior. The "try before you buy" method supported by augmented reality provides the added benefit to virtually interact and engage with products and services prior to purchasing which significantly reduces the chances of experiencing buyer's remorse.
- The uprising of the metaverse is projected to expand customer bases and will aid to create additional revenue streams for the tourism and hospitality industry. By expanding horizons into the metaverse, industries can tap into new markets and attract customers who may not have otherwise considered their product/ service offerings.

This bachelor thesis study contributes to existing literature on immersive technology in the hospitality and tourism industry. However, this thesis differentiates itself as it identifies the exact benefits and uses of immersive technologies towards specific aspects of the tourism and hospitality industry. Although, there is existing literature that assumes the relationship between consumer behavior and purchasing intentions within the scope of immersive technology, many of these studies have failed to establish a clear relationship between the two. The research conducted in this study was done to measure and identify this relationship by comparing different purchasing methods, customer's perceptions and experiences between conventional processes and immersive technology processes. This thesis has some similarities and differences to existing literature as the qualitative data derives from experts and non-experts who are both familiar with immersive technologies. This thesis contributes to immersive technology research as it portrays the top uses for immersive technologies as well as the perceptions respondents have towards the added benefit of set immersive technologies.

The results of this study point towards a positive hypothesis result, as the research conducted for this study portray that immersive technology is indeed a powerful tool for the hospitality and tourism industry as it aids to increase customer engagement with the use of immersive experiences.

Suggestion: This study should be conducted once more in a decade from now as the limitations were that immersive technology such as AR and VR have not yet become a common enough practice within the hospitality and tourism industry. Therefore, if this study would be conducted again in 10 years from now it could better identify the strong suits as well as weaknesses of immersive technology tools/ applications in the hospitality and tourism industry. Industry experts have projected that in the next ten years these immersive technology forms will become regular practice in most industries. This would lead towards a more effective and accurate study with less discrepancies of where immersive technologies provide the greatest added benefit

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Appendices

Appendix 1: Survey

Introduction and Demographic
Q1: Are you familiar with immersive technologies such as augmented reality, virtual reality and mixed reality?
Q2: Please indicate your gender
Q3: Please select your age category
Q4: What is your highest level of education?

Immersive technology information
Q5: How often have you used immersive technologies?
Q6: How did you find out about immersive technologies?
Q7: Which of these immersive technology tools are you familiar with or have engaged with?
Q8: What was the purpose of your most recent interaction with immersive technologies?
Q9: Which immersive technologies have you used?

Industry-specifc use
Q10: What industry are you in?
Q11: Has your company or the company you work for adopted virtual or augmented reality ?

Perception and opinion
Q12: Have you ever used immersive technology related to hospitality or tourism industry?
Q13: Are you more likely to buy a product if you can try it on/visualize it virtually prior to your purchase?
Q14: Are you more likely to book a hotel if you can virtually tour the hotel prior to your stay?
Q15: Would you use AR to navigate around hotel premises or a troust destination?
Q16: Do you think the use of AR and VR could eventually replace conventional booking methods?
Q17: In your opinion, where do you see VR tools providing the greatest added benefit in the hospitality and tourism industry?

Q18: In your opinion where do you see AR tools providing the greatest added benefit in the hospitality and tourism industry?
Q19: In which of the following categories do you think VR increases efficiency?
Q20: In which of the following categories do you think AR increases efficiency?

Appendix 2: Interview

Interview with founder of Pearl Quest Interactive, Badal Dixit.

Block A:

Q1: How old are you?

42 Years old

Q2: What is your gender?

Male

Q3: What is your nationality?

Indian

Q4: What is your level of education?

Bachelor of Engineering in Information Technology

Q5: Could you walk me through your journey within the field of immersive technology?

I am an entrepreneur, speaker, and creative technologist specializing in new consumer engagement methods using interactive digital media. Founded PearlQuest Interactive, a boutique technology firm based in Dubai, in 2013. My daily focus is generating new ideas and crafting solutions for clients, bringing them closer to their marketing and execution goals. I'm also an avid technology enthusiast & evangelist. I've spoken at Gitex, ISE (Amsterdam), Future Technology Week, Infocomm, IoTx, and Intercon conferences.

Block B:

Q6: Does your organization currently make use of or plan to implement immersive technologies in future operations? If currently being utilized what for, and if in plan when do you expect to role out the implementation of immersive technologies?

At my company, PearlQuest, we develop interactive content and immersive experiences like digital games, virtual reality, and sensor integration. This provides 50-60% more engagement than typical methods. The company has done hundreds of projects and worked for brands like Samsung, ExxonMobil, Saudi Aramco & DHL. The mission of PearlQuest is to help clients with solution development in interactive experiences using technology. This is done by creating unique, next-generation creative solutions engaging customers, increase their top-line sales and also find innovation in operational strategies.

Q7: From a professional perspective what are some marketing strategies through immersive technologies which could be used to influence human behavior in terms of purchasing intentions and decision making?

From a professional perspective, VR and AR are two impactful marketing strategies using immersive technologies to influence human behavior in terms of purchasing intentions and decisions. VR experiences can be leveraged to create highly engaging and interactive brand experiences, allowing potential customers to virtually explore products, services, or environments in an immersive manner. This can foster a deeper emotional connection with the brand, leading to increased purchasing intent. AR applications, on the other hand, enable customers to visualize products in their real-world context, providing them with a better understanding of how the product might suit their needs and preferences. By blending digital and physical realities, XR applications can create a seamless shopping experience, ultimately driving higher conversion rates and more informed purchasing decisions.

Q8: In your professional opinion should immersive technologies be used to create a new sales channel within the hospitality industry?

Immersive technologies have been widely used in hospitality in the last few years. Immersive experiences are all around us, so using them to your advantage in the hospitality industry is a good idea. VR, AR, and other emerging technologies are redefining how we interact with computers and the Internet. By giving VR tours of hotels, resorts, or event spaces, potential guests can preview their stay and make more informed decisions about their reservation, leading to increased bookings and customer satisfaction. Another benefit of AR is that it

enables you to deliver a much more personalized experience in the hospitality setting, such as virtual concierges or interactive room service menus, which can enhance customer engagement and drive additional revenue. Immersive technology has huge potential to elevate the overall guest experience, leading to higher customer retention and increased revenues.

Q9: Do you see added benefit to implementing immersive technologies such as AR or VR throughout the customer booking journey?

AR is contextual; it can be used in instances like augmenting a print ad of a hotel in a magazine into an enhanced 3D model showing how the hotel's building looks via the reader's mobile view. With the rise of Web XR, this has become easier since the user doesn't need to download any app. However, there are limitations to the quality of 3D graphics. For booking journeys, I think AR would have limitations. VR may act as a much better immersive technology since it can 'transport' the prospect into the hotel campus, and it is a first-hand realistic experience of how the hotel looks or feels. The virtual tour of a hotel is enhanced if someone sees it via a headset. Then the purchasing decision is seamless if the customer already knows what they are getting. Creating a virtual tour where the hotel room is visible in 360-degree, its views and facilities can be seen beforehand, almost as if you're there – is a surefire way of ensuring a smooth sale and no conflicts post-sales.

Q10: Where in the customer journey do you believe immersive and multisensory technologies are best applied? Pre-purchase, purchase or post purchase.

Pre-purchase

Q11: Which type of immersive technology do you think is the most suitable for the use of marketing the tourism and hospitality industry as well as guiding the customer journey?

Virtual Reality

Block C:

Q12: Do you think immersive technologies will become a standard practice in the industry or remain a niche? If you think it will become a mainstream practice which technology do you believe will become mainstream first AR or VR.

Immersive technologies will likely become a standard practice in various industries, including hospitality, tourism, retail, and entertainment, due to their potential to enhance user experiences and drive customer engagement. As businesses increasingly recognize the value of offering personalized and interactive experiences, the adoption of these technologies is expected to grow. Between AR and VR, augmented reality is more likely to become mainstream first. The primary reason is that AR technology can be easily accessed and integrated with widely used devices like smartphones and tablets, making it more accessible to consumers. AR has already begun to gain traction in various sectors, from retail and gaming to navigation and education, demonstrating its versatility and potential for widespread adoption. Apple has announced the MR headset, which is expensive, but is the first mainstream consumer adoption step. Meanwhile, though promising, VR still faces challenges regarding hardware requirements, cost, and accessibility, which could slow its mainstream adoption compared to AR.

Q13: From your personal experience with multisensory/ immersive technologies what could you suggest in order to mitigate the many challenges of immersive technology?

To mitigate the problems associated with immersive technologies, it's important to give significance to usability, accessibility, user comfort, and safety. Crafting intuitive user interfaces and accommodating various devices, such as smartphones, tablets, and XR headsets, can assert that the technology is user-friendly for a wide range of users. Minimizing issues like motion sickness, vertigo, and disorientation while raising awareness about real-world surroundings can increase user comfort and safety. It's also important to develop scalable solutions that can be easily updated or modified to accommodate advancements in hardware and software. Collaboration and partnerships with industry players, such as hardware manufacturers, software developers, and content creators, can drive the widespread adoption of immersive technologies. By focusing on real-world value and demonstrating tangible benefits, businesses can justify their investments and encourage further adoption. Additionally, addressing privacy and security concerns by implementing robust policies and systems to protect user data is vital in gaining users' trust and fostering a successful integration of immersive technologies across various industries.

Q14: Do you believe that the tourism and hospitality industry will adapt to the uprising of the metaverse? If so, what influence or impact will the metaverse have on a hotel guests' experience?

Yes, the tourism and hospitality industry will likely adapt to the uprising of the metaverse, given its potential to revolutionize digital experiences and create new business opportunities. The metaverse can significantly influence hotel guests' experiences by offering immersive, personalized, and interactive virtual environments. For instance, hotels could create virtual lobbies and common areas within the metaverse, allowing guests to socialize, network, or attend virtual events even before their physical stay. This would enable hotels to extend their reach beyond geographical boundaries, potentially attracting new customers and generating additional revenue streams. Additionally, the metaverse can enhance the guest experience by providing personalized virtual concierges, guided tours, or interactive itineraries. Guests could explore local attractions or plan activities within the metaverse before embarking on real-world adventures, ensuring a more seamless and enjoyable travel experience.

Q15: Does immersive technology aid in driving brand awareness and customer engagement in the hospitality and tourism industry?

Immersive technology serves a vital function in promoting brand recognition and fostering customer engagement. Companies can utilize virtual and augmented reality to develop captivating and customized experiences that attract potential clients and fortify their bond with the brand. As previously mentioned, Virtual reality can deliver virtual tours of hotels, resorts, or attractions, enabling customers to examine the offerings before making a reservation. This immersive preview assists customers in making well-informed choices, boosts the probability of bookings, and cultivates brand allegiance. Augmented reality, on the other hand, can supply guests with real-time information, special offers, or interactive content. This degree of interactivity can elevate customer satisfaction, generate positive word-of-mouth, and, ultimately, enhance brand visibility.

Q16: Do you see immersive tourism as a threat or an opportunity to the tourism and travel industry? As it replicates the feeling of physically exploring a destination without the need to travel. (Mental travels)

I see it more as an opportunity than a threat. Nothing can replace the physical aspect of being in a resort or a hotel. Immersive media is just a tool at the pre-sales stage to experience just a preview of how the hospitality venue looks like. To an extent, it can replicate physical venues, although it will take a few years to achieve the fidelity and immersion of a physical experience. The immersion is only on the visual and auditory level, while a physical experience engulfs all your senses and can’t be replaced using current technology.

Appendix 3: Interview

Interview with founder of VARS, Franco Lanfur.

Block A:

Q1: How old are you?

31 years old.

Q2: What is your gender?

Male

Q3: What is your nationality?

Austrian

Q4: What is your level of education?

Bachelor of Science

Q5: Could you walk me through your journey within the field of immersive technology?

I first got in touch with VR and AR as tools for visualizing architecture projects during my architecture studies at the university. Back then I realized the huge potential of these technologies not only for architecture but for different fields as well. For example, in tourism by using VR or AR and reconstructing ruins, I could show how that place used to look like in the past.

Block B:

Q6: Does your organization currently make use of or plan to implement immersive technologies in future operations? If currently being utilized what for, and if in plan when do you expect to role out the implementation of immersive technologies?

We design and develop AR and VR apps for other companies.

Q7: From a professional perspective what are some marketing strategies through immersive technologies which could be used to influence human behavior in terms of purchasing intentions and decision making?

Displaying products using AR, to show how they look can help people decide to purchase them. For example, with sunglasses people could use face-recognition apps or filters to try on different models of glasses before purchasing them online if they don't want or can't try them physically.

Q8: In your professional opinion should immersive technologies be used to create a new sales channel within the hospitality industry?

Yes

Q9: Do you see added benefit to implementing immersive technologies such as AR or VR throughout the customer booking journey?

No

Q10: Where in the customer journey do you believe immersive and multisensory technologies are best applied? Pre-purchase, purchase or post purchase.

I think immersive technologies could be used post purchase (booking) to sell other products.

Q11: Which type of immersive technology do you think is the most suitable for the use of marketing the tourism and hospitality industry as well as guiding the customer journey?

For marketing, I think AR through social media is the most suitable technology, since a marketing campaign using an AR Filter on social media can easily get viral.

Block C:

Q12: Do you think immersive technologies will become a standard practice in the industry or remain a niche? If you think it will become a mainstream practice which technology, do you believe will become mainstream first AR or VR.

AR will become standard.

Q13: From your personal experience with multisensory/ immersive technologies what could you suggest in order to mitigate the many challenges of immersive technology?

Trying out VR or AR apps or experiences every now and then could help, since these technologies are developing extremely fast, and things that were impossible a couple of year ago are now possible.

Q14: Do you believe that the tourism and hospitality industry will adapt to the uprising of the metaverse? If so, what influence or impact will the metaverse have on a hotel guests' experience?

I don't exactly understand what is meant with "metaverse". For me is just a marketing term by Meta (Facebook).

Q15: Does immersive technology aid in driving brand awareness and customer engagement in the hospitality and tourism industry?

Yes, in combination with social media it helps in driving brand awareness.

Q16: Do you see immersive tourism as a threat or an opportunity to the tourism and travel industry? As it replicates the feeling of physically exploring a destination without the need to travel. (Mental travels)

I see it as an opportunity to enhance a touristic experience.