



Universitetet  
i Stavanger

**FACULTY OF SOCIAL SCIENCES,  
NORWEGIAN SCHOOL OF HOTEL MANAGEMENT**

**MASTER'S THESIS**

**STUDY PROGRAM:**

Master's degree in Service Leadership in International  
Business

**THESIS IS WRITTEN IN THE  
FOLLOWING**

**SPECIALIZATION/SUBJECT:**

Service innovation

**IS THE ASSIGNMENT CONFIDENTIAL?**

No

**TITLE:**

The effects of Virtual Reality (VR) on customer experience in theme parks:  
An Integrative Review

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# The effects of Virtual Reality (VR) on customer experience in theme parks: An Integrative Review

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Master thesis 2024

Service Leadership in International Business

Faculty of Social Sciences

Norwegian School of Hotel Management

# Abstract

This is a systematic review of existing literature to explore the effects of virtual reality on customer experience in theme parks. An integrative systematic review was conducted to gather data and analyze how virtual reality can affect the customer experience for visitors in a theme park setting. Consumer experience has been recognized for years in hospitality and tourism research, studying behavioral and emotional components during the consumption experience. Virtual reality has gotten increased attention the recent years due to significant developments in technology. Data from Scopus database was collected and findings from the 12 research articles included in this review suggests that factors in VR technology such as sufficient storytelling and user experience (including ease of use, sense of presence, fit of equipment and compatibility with lifestyle) can be related to the affective component in customer experience by increasing the feeling of immersion, enjoyment, emotional attachment, curiosity and arousal. Based on the findings from the articles and theory from existing literature, this study proposes a model. This study presents information that can be related to the innovation field by discussing new technology such as Virtual Reality (VR) and can be relevant for researchers and professionals in the tourism and hospitality industry. It explores the affective aspects of customer experience and the impact that VR technology can have on this. This study contributes to the tourism and hospitality field by presenting information that can be used by theme park managers to improve the customer's overall experience, which can contribute to customer satisfaction and loyalty.

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# ACKNOWLEDGEMENT

This thesis marks the end of an educational and exciting journey of my Master's Degree in Service Leadership in International Business at the Norwegian School of Hotel Management at the University of Stavanger. The process of writing this master's thesis has indeed been challenging, but also interesting and rewarding.

I would like to express my sincere gratitude to my supervisor Marie Christine Lundberg, who has provided me with valuable advice and feedback during this demanding process. I am deeply grateful for your guidance and motivational words in the most challenging times.

Thank you to my family for always supporting me. I am especially thankful for my mother, I could never have done this without you. You always believe in me and I am forever grateful for your support.

I also want to thank my partner for always being there for me and our daughter, your love and support has helped me through the ups and downs. Thank you for always lifting me up and believing in me! Last but not least, thank you to my daughter for always enlightening the day and making me laugh on my most exhausted days.

May 2024

Malin Thorvig



# 1. Introduction

Virtual reality (VR) technology has gradually achieved more influence at theme parks and the utilization of this technology has gotten an increased attention the recent years. There have been advancements in VR technology to attempt to tailor the customer experience to create unique and memorable experiences to enhance the feeling of immersion (Oh & Kong, 2022). Wei et al. (2019) suggests that the visitors sense of presence in a virtual environment is a significant factor that can have a positive impact on customer experience. Existing research on customer experience in hedonically-driven environments such as theme parks assesses different aspects of the experience such as behavioral and emotional responses. Godovykh & Tasci (2020) suggests that cognitive, sensory, conative and affective components should be considered in the attempt to understand the overall customer experience in tourism, that includes pre, during and post consumption experience.

The Covid-19 pandemic had a significant effect on the tourism and hospitality industry. After the pandemic, it has been important for the industry to focus on attracting more customers and increasing their revenue. This has resulted in increased developments in virtual reality technology in theme parks just the recent years. Disneyland has created a task force specifically for the intention to investigate the potential use of Artificial Intelligence and how this technology can improve the customer experience, in addition to reducing costs in the parks (Edwards, 2023). This study explores the effects that VR technology can have on the consumption experience in theme parks, emphasizing the affective component in customer experience literature. The overall aim of this work is an integrative systematic literature review that discuss the research question: *How can Virtual Reality affect customer experience in theme parks?*



## 2. Central concepts under study

### 2.1. Customer Experience

Godovykh & Tasci (2020) has critically analyzed conceptual and empirical literature to define customer experience in the tourism industry in general. The literature establishes that most of the research that has been done before seems to be missing the totality to define the customer experience. The study suggests that the main focus in existing research on this theme has been the customers' joyful response from earlier experiences as a calculation of the customers current experiences. Based on this, Godovykh & Tasci (2020) propose an experience model that contains four main components to give a holistically defined customer experience. The model is based on a review from 19 different studies regarding customer experience within the areas of leisure, hospitality and tourism. In addition to the four concepts in the model identified as cognitive, sensory, emotional and conative, Godovykh & Tasci (2020) also suggest a combination of several measures to manage to get a comprehensive overview of the customers *first time* visit, as well as their experiences *when* they are visiting and *after* they have been visiting a tourist destination. The model has to be studied with a combination of different techniques to manage to get the comprehensive picture of customer experience. The affective component in the model can be described as feelings and as emotional impacts, emotional states and the emotional condition of a person. The cognitive component consists of terms such as knowledge, memories, perception and thinking. The conative component can be described by terms such as behavior, behavioral, conative, and it can be related to a person's willingness to do something and the reason behind an action. The sensorial component is related to terms as sense, sensorial and sensory, which can be

impression and information to the brain true sensory information. Godovykh & Tasci's (2020) model is meant to be a tool for further research around customer interaction with affective and sensory components that leads up to experiences that can make customers want to come back. Customer experience are believed to be the most important factor by 85% of the business managements when it comes to competitive advantage, instead of quality, price and product (Shaw & Ivens, 2002, referred in Godovykh & Tasci, 2020). There have been several different general definitions of experience from other authors earlier. O'Sullivan & Spangler (1998, p. 23, referred in Godovykh & Tasci, 2020, p. 2) describes customer experience as: «events or feelings who occur before, during and after participation». It has also been defined as an optimal experience which describes the mental psychological condition of a human being who goes all in for the activity with optimal happiness, energetic concentration, sincere interest and full involvement (Bonaiuto et al., 2016). That includes that the person is usually motivated, interested, focused and positive to the task. This also says what's going on behind the feelings. Gupta & Vajic (2000, p. 34) are using more details to explain customer experience as it will be created in the situation where a customer acquires new knowledge or new feelings as a result of some interaction with different elements in a created context made by the service provider. This also defines the circumstances where the activities find place as well as the conditions that are taking place in the customers. Schmitt (1999, p. 57) has described customer experience as: experiences that find place as a result of meeting, going through and living through things.

Some researchers started to put their findings in a more holistic way since the perspective of customer experience had been extended from the experience economy paradigm. The meaning of the term holistic can be described as everything that has a connection to each other and can be related into several activities in daily living as well as experiences in theme parks (Teigen, 2021). By describing different meanings around the verb “to experience” Getz (2007, referred in

Godovykh & Tasci, 2020) was also reflected in the holistic experiences where he suggests specific components such as feelings, changes and events. He also described different areas of using the term experience when it comes to cognition, affect, feelings, knowledge, awareness and skills, in addition to changes. Based on this, he suggests an experience construction where the conative component is described as the person's real behavior, while the cognitive component tells us about the person's understanding, evaluation of their experience and memory of it. The affective component represents the emotional aspect and feelings that are tied up to the experiences. These can be achieved in different ways, since they have their own distinct nature. In addition to emotional, cognitive, sensory and behavioral components of experiences, Bagdare & Jain (2013) includes human beings, processes and objects as the sources connected to different experiences in the environments.

When Godovykh & Tasci (2020) explain customer experience in tourism and hospitality research they talk about both of the terms “customer experience” and “visitor experience” in relation to each other when explaining the theoretical concept. A lot of the literature in the tourism and hospitality field refers to both of these terms when defining experience from a consumer perspective. Packer & Ballantyne (2016, p. 137) defines the visitor experience as “an individual's immediate or ongoing, subjective and personal response to an activity, setting, or event outside of their usual environment”. Godovykh & Tasci (2020) mentions Packer & Ballantyne (2016) theoretical framework on visitor experience in their study as it includes affect and cognition. In this regard it can be linked to the same factors that Godovykh & Tasci (2020) use in their proposed model for customer experience, but they suggest that this framework on visitor experience lack the components of conation and sensory. The concepts are in some ways intertwined and closely related to each other in the hospitality and tourism research. The difference is that this definition of visitor experience focuses on only some of the same aspects as

customer experience theory, but the latter looks at the experience from a bigger perspective and includes more components to explain the overall experience. Based on this, the study includes research also using the term visitor experience when reviewing customer experience.

Existing literature discuss “experience economy” in relation to tourism and customer experience as this concept revolves around creating unique and memorable experiences. Experiences as a result of memorable events for the customers are Pine & Gilmore’s (1999) definition, while they introduced the experience economy as the next level after economic development and then industry, agricultural and service economy as the defining product of business. They conceptualized experiences that reflect over internal responses as a consequence of the physical, intellectual, emotional and spiritual level for the customer's engagement. Other than creating memorable experiences, the experience economy can also be characterized by offering authentic experiences and personalized experiences in terms of creating an experience that is tailored to the specific customer's preferences. O'Sullivan & Spangler’s (1998, referred in Godovykh & Tasci, 2020) research looks at the experience economy and separates it in three different actors; The companies who produce the sale items, also called infusers. Service providers or amplifiers which have as a task to give experiences to increase the level of customer satisfaction. The last one is the experience creators who give experiences as a main result of their activity. Examples of experience economy can include theme parks such as Disneyland because of their focus on creating authentic and memorable experiences.

## 2.2. Customer Satisfaction and Loyalty

Feelings such as action/relaxation, excitement/calmness and unpleasantness/pleasantness elicit a set of emotional responses called consumption emotions (Wong, 2004). These

consumption emotions are a result of how the customer evaluates the experience after it has occurred. If the experience elicits positive emotions it can lead to customer satisfaction.

Westbrook & Oliver (1991) defines satisfaction as a result of consumption emotions evaluated by the customer in the post consumption experience, whereas the emotions can be related to the affective component from the customer's experience. The research indicate that customer satisfaction is a result of how the customer perceives the overall experience and can be accomplished if the experience meets the customer's needs or exceeds their expectations. Because customer experience is closely related to customer satisfaction, it is relevant to define this concept as the research in this integrative review refers to experiences, satisfaction and loyalty.

According to Bose & Rao (2011) customer loyalty can be explained as the customer's experience should be a great degree of enjoyment so it would result in loyalty to the products or services and come back at certain times. Generally speaking, it means repurchasing products and services. Customer loyalty is counted as the key factor for the company's success and it can be achieved by creating a positive customer experience. Several companies have pointed out that it will cost as much as five or six times more to provide a new customer instead of keeping the ones that they have already got, so customer loyalty is also an important economic factor. Bose & Rao (2011) suggest that there is a context between customer loyalty and their commitment to come back and buy the same product or service several times in the business industry. It also implies that they will recommend the services and products to friends and acquaintances.

The information technology has had a revolutionary development over the last years and has increased the customer's awareness and made a situation where long term success will no longer be able to be achieved only through quality or product price. The companies have experienced that to achieve success connected to customers loyalty, it is of great importance to

create a long term relationship with the customers. The customer's attitude to a product or service, including engagement and attitude preference has a significant impact on creating customer loyalty. Service quality, perceived value and customer satisfaction are also some of the factors that are connected to loyalty (Khan et al., 2022). During the last years the head managers have been more aware of the value of making experiences for their customers. Research indicates that building loyalty is an important component in customer experience and that is also valuable to be able to compete effectively (Srivastava & Kaul, 2016). In a consumer's perspective an experience is first of all a personal event, that often includes emotional meaning, based on the interaction between stimuli from the products or the services that they are using (Grundey, 2008).

### 2.3. Virtual Reality

Sussmann & Vanhegan (2000) describes Virtual Reality (VR) as an environment that is manipulated in a virtual way so the users could get a feeling like they are experiencing the real world. To create advanced VR in specific environments and situations it is used 3D computer graphics, to make the users get a similar feeling to the real world. Innovative technologies such as Mixed Reality (MR), Virtual Reality, Augmented Reality (AR), virtual assistants, robots and chatbots, powered by Artificial Intelligence (AI), have the opportunity to transform the customer experience dramatically (Hoyer et al., 2020). The new technology that is already here and is further developed in the future will probably have a big impact on the customer experience and it will also create new values for the customers. The successful companies will focus on increasing this value through continuously forming the technology-based interactions in a customer-centric way (Rangaswamy et al., 2020).

Virtual reality (VR) can be defined as using computer modeling and simulation to give a person the feeling of interacting with an artificial three-dimensional sensory environment as for example visual, auditory or others. The objective statement of VR applications is to let the user take place in a computer-generated environment that simulates reality. The way it takes place is through the use of different interactive devices which are able to receive and send information. Bodysuits, headset or gloves are effects that are being used. Helmet with a stereoscopic screen which shows the user animated images of a simulated environment is a typical part of visual reality format. Another part of it will also be motor sensors affected to pick up the movements of the user's so it will be able to adjust the view on the screen at the same time as the user's movement. That will also contribute to the illusion of "being there" (Lowood, 2024).

Hoyer et al. (2020) research discuss how new technology can create experiential value for the customers and what the companies can do to enhance the value creation. The study explores how technology can make new experiential value and be a catalyst for action, increase attachment and integrate new technology into people's lives in a seamless measure. What characterizes virtual reality is that it closes out the real world and simulates the entire environment. VR is often used with a headset which blocks out all the sensory experiences from the real world and replaces it with an even more innovative and engaging environment which immerses the users in virtual and often entertaining 3D-worlds (Hoyer et al. 2020).

Artificial Intelligence is able to perform several of the same cognitive functions that human beings usually do, for instance making decisions and solving different kinds of problems. AI refers to acts that include interpretation and analyses of data, learning from data and also to use the new knowledge to achieve tasks and specific goals (Shankar, 2018 referred in Hoyer et al., 2020). AI can be characterized by its use of algorithms that let the machines understand and

produce natural language, depict emotions and learn from experiences (Simonite, 2014, referred in Hoyer et al., 2020).

Hoyer et al. (2020) suggests that the new AI- technologies can influence the sensory/emotional, cognitive and social dimensions and be able to make new values of experiences. That presupposes that it would be administered and implemented in the right way. The sensory/emotional value can be the value that the customers get through sensory stimuli and emotional attachment that can be related to the affective and sensory properties against AI technology. The cognitive process is defined as the value of the experiences that the customers are getting as a result of the treatment around the information and different decisions that are made. Hoyer et al. (2020) propose that an interdisciplinary approach is the key factor to understand the impact of new technology on customers experience. A possible merger of different disciplines is suggested to open up and understand research perspectives from the outside. The companies should focus on and prioritize the technology that has the largest potential to transform their own business. It could also be valuable to survey how new technology could be integrated into the already existing technology. The literature recommend to research all the involved interests like human resources, marketing finance and information technology. The research emphasize the importance of acknowledging that there can be negative consequences of these emerging technologies, such as privacy issues, loss of control and addiction.

### 2.3.1. Addiction and isolation connected to Virtual Reality tourism experiences

The tourism experience term has different interpretations and usually researchers divide it into either eudaimonic or hedonic experiences. According to Knobloch et al. (2017) the eudaimonic experiences can be described as engaging in a meaningful way and will often be



connected to personal attachment to activities, events and places. With the hedonic experiences the goal will be to create as much positive feelings as possible, within a certain time. It also includes activities who are searching for excitement combined with fear, but avoiding negative feelings unless these are connected with positive feelings.

Merkx and Nawijn (2021) has studied the temporary feeling of isolation and the possibility of habit information around reality tourism experiences. A computer-generated 3D-environment which is possible to navigate, was what they chose to define as the characteristic VR, which gave the result of contemporary simulation that included one or several of the customers five senses. A negative side of the virtual experiences could be addiction. The research by Merkx and Nawijn (2021) found that VR tourism experiences can create an addictive component. Several of the customers described it like they were reluctant to leave the VR simulation, and some were even willing to sell some of their material things to be able to continue and buy their own VR setup. Results showed that some of the participants were addicted already after the first time. Several of the participants expressed a contemporary feeling of isolation during the VR experiences. Even if they enjoyed themselves when clothed the VR glasses, there was a lack of feeling connected in the same way that they would like to do and felt lonely. Some experienced claustrophobic, unpleasant feelings. Since the VR applications misses the possibility to interact in a natural way and the users of virtual reality do not get immediate feedback, this can impact the feeling of being isolated. The feeling of isolation is however a subjective emotion, and according to Cacioppo & Cacioppo (2014) the feeling of isolation could develop to stress in a short term and have some harmful effects in the long term. The research suggests that there may be increased demand for VR experiences in the future. Cohen et al. (2011) propose that the academic work in the future should take a closer look at the isolation

feelings in relation to the VR users and details of health effects and possible factors such as stress. An important question for further research can be how the isolation is related to loneliness or other possible effects of temporary isolation connected to VR customer experiences.

## 2.4. Virtual Reality in Theme Parks

Theme parks can be defined as a permanent large area that aims to entertain customers, which can consist of activities with large machines to play or ride on. Some of them are also connected with a single subject or based on a particular idea or theme (Cambridge Dictionary, 2024). Walt Disney World, Universal Studios Orlando and Sea World are examples of the largest theme parks in the world. To manage to give the customers a special and exciting experience, virtual reality theme parks and similar attractions are using virtual reality technology. Disney Regional Entertainment DisneyQuest, which is an interactive VR theme park, opened in Orlando in 1998 and it contained a 1000,000 square meters room with carousels like Mighty Ducks Pinball Slam and Aladdin's Magic Carpet Ride, something that made it interactive and innovative (UCF Online, 2024). In the beginning virtual reality technology in theme parks started with the already existing water slides, roller coasters and drop towers. The customers got to wear VR headsets with LED screens so they got the experience of being placed in a virtual world that moved like the attraction. Galaxie Express was the first roller coaster using VR, and it was developed at Space Center Bremen in Germany in the year of 2003. Alpenexpress Coastality in Germany gave the customers a sensory technology based experience with a VR headset in 2015. "Roam and ride" VR roller coaster Eurostat Coastality were opened in 2018 and the experience started with the customers getting a VR headset on while they were watching a virtual reality

world based on a movie. Without taking of the headsets, they were followed over to the rollercoaster afterwards, and the ride started when everybody was safely fixed (UCF Online, 2024).

Fu et al. (2023) has been highlighting the customers immersion in relation to visiting theme parks in China. Their research discuss if storytelling were connected to successful immersion. Their analysis consisted of 30 interviews which included Chinese participants older than 18 years that had been visiting at least one theme park in China during the last two years. The findings from the research might indicate that beyond a good story, the visitor's degree of immersion in theme parks also has an impact on their overall satisfaction. The research found that the physical environment and design of multi-sensory components consisting of tactile elements, smell, sounds and sights that surrounds the visitor could give them the feeling of having a role in a fantasy world.

Literature suggest that it is cheaper for theme parks to connect VR technology to already existing attractions to make potential customers come visit them (Hoyer et al., 2020). Some theme parks started to develop attractions that were standing by themselves, including attractions that made it possible for several customers to play together. China was one of the first countries in the world that opened a complete VR theme park in 2018. It got more than 40 VR focused attractions and cost more than 1,5 billion dollars to build. The biggest VR theme park in the world is currently in Dubai and it gives the customers a great variety of interactive VR experiences. The park has also chosen to cooperate with American movie- and television companies because they wanted to give their customers special VR attractions such as John Wick Chronicles and The Walking Dead Outbreak (UCF Online, 2024).

According to research VR technology can be very expensive, but as progresses develops and the prices gets lower, the VR theme parks could become more common in the industry. There

are still some challenges in the industry such as technology efficiency, hygiene and that customers getting sick while the VR are using sensory impact to let them get the feeling of moving around (UCF Online, 2024).

According to Spence (2021) several theme parks are using different scents to influence visitors' senses during VR activities. The research mentions Disneyland as an example as they are using scents of sweet candy while the visitors pass through the entrance of the park. The scents could also be used to help the visitors to get a sense of immersion while they are doing VR activities in the park to get holistically experiences. Different kind of scent is also incorporated into several themed rides to influence the visitors' senses.

## 3. Method

### 3.1. Research Design

An integrative systematic review design method has been used to look at the existing literature in the research field. An integrative review is a type of systematic literature review to collect evidence-based data on a certain topic or research question in a science field. A systematic review collects existing literature of peer-reviewed research in an area. By collecting and synthesizing knowledge in a field it can provide us with an overview of what studies have been conducted earlier in this area and what has worked so far. An integrative review has the advantage of including research with qualitative, quantitative and mixed methods. This can be an advantage because all studies can be included to get a better insight into the topic, which is positive when there are limited studies only using one type of methodology to discuss the research question (Furunes, 2019). When analyzing the information retrieved you can identify repeating themes and patterns in the existing literature to get a new perspective on the theoretical area. The systematic review method can be beneficial to apply in studies with a narrow scope and it often tends to include a smaller amount of research to review (Donthu et al., 2021). Integrative reviews often address mature topics or new emerging topics (Torraco, 2005). The purpose of this research is to explore the potential effects that virtual reality can have on the customer experience in a theme park setting. Customer experience in the hospitality and tourism perspective has been researched by scholars for decades, and many tend to focus on the emotional and behavioral responses in pre, during and after consumption experience to identify significant factors that can be related to customer experience. There have been new developments in virtual reality technology the recent years and it seems to get more attention as researchers has seen potential in

utilizing the technology in customer experience. The amount of existing literature on VR technology is not that broad compared to research on consumption experiences. The emerging development and increased attention on virtual reality in theme parks can suggest that further research should be conducted in this area. This study reviews existing literature in virtual reality and customer experience in relation to theme parks, which might be used as a tool for further research.

### 3.2. Data Collection

Literature searches was conducted to retrieve records of research addressing virtual reality and customer experience in theme parks. The Scopus database was used to locate the most relevant research for this study because this database is deemed as one of the most accurate and biggest platforms to find perfect high-quality research results, according to the Science Publisher Company (2024). The “article, title, abstract, keywords” search in Scopus was used to retrieve data. The data was collected by identifying key search words that could retrieve relevant literature to enlighten the existing research in this area. The three search words that were considered to be the most relevant to get an insight into the research question was; “Virtual Reality/VR”, “Customer Experience” and “Theme Parks”. These keywords gave a selection of research to consider for this study and use in the analysis. When collecting studies for this paper the literature was selected by screening the titles and abstracts of the results using the specified search words. A review of the full texts was then conducted on the initial articles retrieved from the first screening. The inclusion and exclusion criteria that were established for this study were used in the screening process to find research that would contribute to enlighten the research question, these criterias are described later in this chapter.

The first search conducted used a combination of all the three search words; “virtual reality”, “customer experience” and “theme parks” (searched: 08.03.24). The result was 2 sources, 1 article and 1 book chapter whereas the book was from 2013 which does not meet the inclusion criteria of being from the last 7 years, and not relevant for the study as it focuses on cultural heritage. Because there were limited results in the Scopus database when using all three keywords there was also conducted search only using a combination of two keywords together which yielded a larger sample of data. When searching the “article, title, abstract, keywords” with the search words “virtual reality” and “theme parks” in Scopus there were 75 results. When using the inclusion criteria of only viewing research from 2018-2024, there were 36 results consisting of articles, conference papers, book chapters and reviews. When screening the titles and abstracts of the results, 22 were excluded which left 14 studies that could be relevant. After the secondary screening when reviewing the full-text studies, there were a total of 5 articles that were relevant for this study in relation to the inclusion criterias.

The other search conducted by using the “article, title, abstract, keywords” search in Scopus consisted of using the search words “customer experience” and “theme parks”, which gave a result of 81 articles, book chapters, conference papers, books, reviews and editorial (searched: 28.03.24). When searching for research from 2018-2024, there were 50 results. After the abstract and titles were screened, 24 studies were considered for the final sample. The secondary screening of the full-text based on the inclusion criteria resulted in 6 studies that suited the purpose of this study. The research included in the final selection is studies using quantitative and/or qualitative methods because this can contribute to give a broader perspective into the research question. A table is presented below to present an overview of the number of results retrieved on each of the searches according to the process described above. A total number of 12 articles was yielded from this search strategy and was established as the final selection.

Search Words	Database	Total number of identified research	Total number after searching between the years 2018-2024	Total number after screening titles and abstracts	Total number after screening full texts
Virtual reality, Customer experience, theme parks	Scopus	2	1	1	1
Virtual reality, theme parks	Scopus	75	36	14	5
Customer experience, theme parks	Scopus	81	50	24	6
Total number of search results:		158	87	39	12

Table 1. Search results retrieved from the individual searches

A visual overview of the selection process with the total number of search results from each step is presented in the figure below based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) that follows a 27-item checklist to report evidence in systematic reviews (PRISMA-statement.org, 2020). The flowchart diagram is often used in systematic reviews to give an overview of the selection process and the steps conducted in the study to end up with the final selection of research to explore existing literature in the field. An explanation of the steps is presented below.



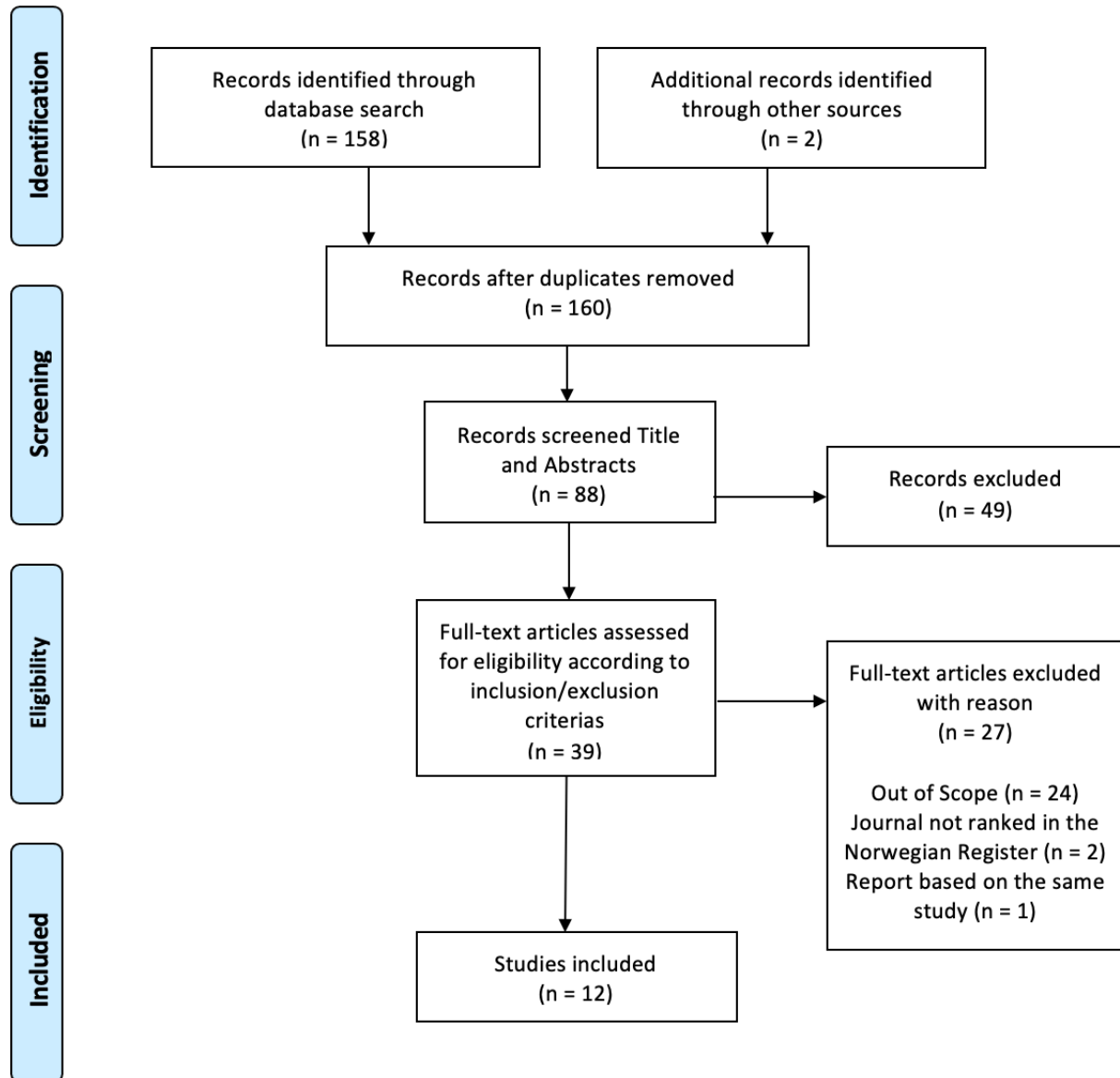


Figure 1. PRISMA Flowchart for the total numbers of research included in the review

There were 75 results when first using the search words “virtual reality” and “theme parks”, while the combination of “customer experience” and “theme parks” yielded 81 results. Combined with the 2 results retrieved by using all three search words: “virtual reality”, “customer experience” and “theme parks”, gave a total number of 158. Two additional results were

identified by reviewing reference lists. As none of the results in Scopus were duplicates, the result was a total of 160 identified records. When using the inclusion criteria to only show results published between 2018-2024, there were 36 results on “virtual reality” and “theme parks”, 50 results from “customer experience” and “theme parks”, and one result from using all three search words. Only one of the results retrieved from the reference lists met this criteria, which gave a total of 88 eligible results. After screening the titles and abstracts, 49 was excluded because they did not focus on two or all of the three search words, they only focused on one of the topics; virtual reality, theme parks or customer experience. The remaining 39 results consisted of 14 results from “virtual reality” and “theme parks”, 24 results on “customer experience” and “theme parks”, and the 1 result retrieved by using all three search words. The result from the reference list was excluded. The remaining 39 were assessed for eligibility according to the inclusion and exclusion criterias, whereas 27 were excluded. 24 of the excluded research did not fit the purpose of this study because they were out of scope, some focused their research from a business perspective especially on how businesses could build their brand, while some research focused most on management perspectives with limited focus on the customer perspective. The literature excluded from virtual reality research was due to the studies focusing on VR in other industries and did not have a connection to theme parks. Two of the records retrieved were published in a journal that was not ranked in the Norwegian Register. 1 of the excluded records was a brief research report that was based on the same study that is included in the final sample, whereas the same authors had written a brief report but from a different perspective focusing on the negative effects on customer experience in theme parks. As the report was based on the same study and findings as the original article, the same information could be retrieved from the original article but with a more comprehensive description. Based on this, the report was excluded. This resulted in 5 research articles from the search words “virtual reality” and “theme parks”, 6 articles from

the search “customer experience” and “theme parks” and 1 from the search with all three keywords, which establishes a total of 12 articles as the final selection of research for this study.

### 3.2.1. Exclusion and inclusion criteria

When conducting an integrative systematic review it is important to find the most relevant research in the specific field of science. The best way to do this is by determining a set of inclusion and exclusion criteria before starting the research. According to Forsberg & Wengström (2016, p. 28) these criterias should be clearly stated because this makes the search more effective and it is then easier to find the best research in the selected field of study. An overview of the selected inclusion and exclusion criteria is presented in the table 2, followed by an explanation of the chosen criterias.

Table 2. Inclusion and exclusion criterias

<b>Inclusion criterias</b>	<b>Exclusion criterias</b>
Research that focus on Virtual Reality in theme parks, or Customer Experience in theme parks.	Research focusing on Virtual Reality or Customer Experience in areas.
Recent publication – published from 2018-2024	Published in the last 7 years

Publication Channel ranked at level 1 in 2 in the Norwegian Register for Scientific Journals, Series and Publishers	Not ranked at level 1 or 2 in NSD in the Norwegian Register for Scientific Journals, Series and Publishers
Research published in English	Research published in other languages
Research that focus on the customer perspective	Research that focus on other perspectives

To narrow the search to find the most relevant articles for this study, one inclusion criteria was that the article's title or abstract had to focus on two or all three of the keywords. Because there were a limited number of results when searching all three keywords; “Virtual Reality/VR”, “customer experience” and “theme parks”, it was then conducted searches only using a combination of two search words. To get a better insight of the research question, the decision was made to view the topics from two perspectives: 1. Look at research focusing on virtual reality in theme parks 2. reviewing literature on customer experience in relation to theme parks. By reviewing the findings from each perspective and view them in relation to each other, it might give an indication on what factors affects customer experience in theme parks and how virtual reality can impact this experience. Therefore, one exclusion criteria was that the study did not have a concrete connection to theme parks. When researching “customer experience” it was not limited to literature only using this term in the title or abstract. The reason for this was that a number of the results used the terms “visitor experience”, “consumer experience” and “guest experience”, these are closely related to customer experience and some of the research uses these terms as synonyms for customer experience. In addition, because many of the results retrieved by

using the search word “customer experience” focus on the theoretical concepts *customer satisfaction* and *loyalty*, research articles including these concepts were also considered in the selection because they are connected to each other. As mentioned in chapter 2, customer experience that has a positive effect on the consumer can lead to customer satisfaction and loyalty.

According to Furunes (2019), systematic reviews should be *timely* by being up to date research to contribute to building new knowledge in the field. Because this study focuses on new technology and specifically virtual reality that has had a development in the recent years, especially after Covid-19, the search was limited to studies published from 2018 to 2024. Research that focuses on the customer perspective and customer experience has a longer history of studies, but the customers’ expectations that impact the experience has changed over the last years because of new technology and changes in society. Because of this, it can be significant to find research concerning customer experience in theme parks that is up to date to better view the situation in today's market.

In this study it was important that the studies included for the final selection can be deemed reliable by being published in acknowledged research journals. By reviewing the publication channel it can give an indication of the credibility and validity of the research. The Norwegian Register for Scientific Journals, Series and Publishers, often referred as the Norwegian Register, is a Norwegian website that rank scientific publication channels based on specific criteria to ensure the scientific quality of the journals, one of the criteria is that the research has to be peer-reviewed by a group of scientists. The Norwegian Register rank the journals at level 2, level 1 or level 0. Level 2 publications are the highest ranking and the journal can be defined as leading in its field of science. Level 1 is the second-highest ranking as an Ordinary Publication Channel and means that the journal meets the minimum criteria that is

expected. Level 0 means that the publication channel has been assessed but did not meet the quality criteria for scientific journals (The Norwegian Register for Scientific Journals, Series and Publishers, 2024). Therefore, another inclusion criteria for the final selection of research were that the publication channels that the research was published in had to be ranked at level 2 or 1 in the Norwegian Register.

The research included in the final sample had to be written in English to make sure that nothing got lost in translation or misunderstood. One of the articles included in the sample was written in the authors first language, but they had also wrote it in an English version to reach an international audience. The last inclusion criteria were that the research should have some focus on the customer perspective because this study explores customer experience, it is relevant to locate research that explores the consumption experience from a customers perspective. This also relates to research in virtual reality, as the research had to have a connection to theme parks, factors concerning consumer experience was included in the research because it is related to the theme park experience.

### 3.2.2. Validity and Reliability

According to Thagaard (2009, p. 190) the reliability of a study entails accounting for the information retrieved in the study and evaluate this information. Validity can be connected to the degree of accuracy of the results suggested in the study (2009, p. 190). In systematic reviews, it is important to use a systematic approach when searching, screening and selecting the research for the review. Literature suggest that using recognized guidelines such as the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) to provide a framework and document the process can establish reliability of the presented evidence. The process should be

well documented, the research question should be clearly defined, identify key search words and inclusion-and exclusion criterias according to the research question, evaluate the quality of the research, extract data which can be presented in tables or charts, and address limitations that can have an impact of the findings from the study. By following these guidelines, it might impact the validity of the systematic review (Shaheen et al., 2023). In the study, the PRISMA guidelines was used and a PRISMA Flowchart diagram is presented to show the process. Several tables are presented, the first table presents the search process from the individual searches retrieved by using a combination of two search words. Table 2 is presented of the inclusion- and exclusion criterias. A third table is presented of characteristics of the selection of research that was retrieved. Table 4 suggests the overall findings from the 12 articles. The study identifies a research question and key search words. This study attempts to set specific and clear inclusion and exclusion criteria. In addition, this study attempts to evaluate the quality of the research by reviewing the journals that the articles was published in using the Norwegian Register for Scientific Journals, Series and Publishers. In chapter 6 conclusion, limitations for this study is presented.

### 3.3. Data Analysis

The final selection of data was analyzed by looking at themes, theoretical concepts and patterns in the existing literature. The results and findings of the studies were reviewed to retrieve information that can give a better insight into the research conducted in the tourism and hospitality field, and what has been proposed from earlier findings. Theoretical concepts and factors that were repeated in several of the research findings suggest that these aspects can have a significance to understand customer experience in theme parks and how virtual reality can affect this. The publication channel that all of the research was published in was also reviewed to evaluate if the source can be reliable and meets the criteria to be deemed as research of significant scientific quality. According to Furunes (2019) a data extraction table is preferable to present the research included in a systematic review to display different characteristics of the studies. A table of the selected research is presented in table 3. The research is presented with the information about the title of the article, authors and year it was published, in addition to a short description of the article's purpose, findings, the area of research, methodology, the database it was retrieved from and the search words used to find it, in addition to information about the journal it was published in. Based on findings from the 12 articles and theory from existing literature, this study propose a model in chapter 4 that suggests how virtual reality can affect customer experience in theme parks.



### 3.3.1. Sample descriptives

Table 3. Selection of publications included in the review

Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Factors influencing intention for reusing virtual reality (VR) at theme parks: the mediating role of visitors satisfaction.</i> Alam, M. N., Turi, J. A., Bhuiyan, A. B., Kharusi, S. A. Ovenuga, M., Zulkifli, N., & Iqbal, J., 2024.	The article study factors that influence visitor satisfaction and reuse in relation to virtual reality in theme parks in Malaysia.	Visitor satisfaction mediates the relationship between perceived ease of use, compatibility and intention to reuse VR, and that enjoyment, compatibility and ease of use positively influence the intention of reusing virtual reality in theme parks.	Social sciences	Quantitative method, survey	Scopus  Search words: Virtual Reality, theme park, Customer experience	Cogent Social Sciences.  Ranked at level 1 in the Norwegian Register.
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Effects of virtual reality on theme park visitors' experience and behaviors: A presence perspective.</i> Wei, W., Qi, R. & Zhang, L., 2019.	The article explore how theme park visitors' behavior and experience can be positively affected by the use of virtual reality technology.	Both functional and experiential characteristic of VR applications influence theme park visitors' sense of presence. Experiential characteristics have more influence on this presence. This presence impacts the overall visitor	Tourism and hospitality management.	Quantitative method, survey	Scopus  Keywords: Virtual reality, theme parks	Tourism Management.  Ranked at level 2 in the Norwegian Register.

		behavior and theme park experience.				
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>VR and Nostalgia: Using Animation in Theme Parks to Enhance Visitor Engagement.</i> Oh, J. E. & Kong, A., 2022.	The article explore how theme parks can attract customers and promote the park with the use of nostalgic animation in relation to VR in Korean theme parks.	Visitors can experience stronger emotional connection, improved presence and better engagement by focusing on emotional attachment and combining it with existing animation content in VR attractions.	Promotion management	Qualitative method, interviews	Scopus. Search words: Virtual Reality, theme parks	Journal of Promotion Management.  Ranked at level 1 in the Norwegian Register.
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>An Emotional Roller Coaster: Electrophysiological Evidence of Emotional Engagement during a Roller-Coaster Ride with Virtual Reality Add-On.</i> Bastiaansen, M., Oosterholt, M., Mitas, O., Han, D. & Lub, X., 2022.	The article evaluates emotional engagement and the overall experience of theme park rides with and without VR add-on, measuring SCR responses.	VR roller-coasters is experienced by visitors' as more positive in contrast to regular rides.	Tourism and hospitality	Quantitative method, Quasi-experiment and questionnaire. Skin Conductance Levels (SCL) was measured using a wristband on 53 visitors during a roller coaster ride when they are using VR add-on and without it. The visitors then	Scopus Search words: Virtual Reality, theme parks	Journal of Hospitality & Tourism Research  Ranked at level 1 in the Norwegian Register.

				got a questionnaire in relation to their experience.		
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Virtual reality enhanced roller coasters and the future of entertainment – audience expectations.</i> Burt, M. & Louw, C., 2019.	The article discuss what elements that can create a successful VR enhanced roller-coaster from a user experience perspective.	The user experience is critical for the customer to have a positive VR experience, whereas the ease of use of VR technology has a significant impact on creating a good user experience.	Leisure theory and research.	Quantitative and Qualitative method, questionnaire and interviews	Scopus Search words: Virtual Reality, theme parks	World Leisure Journal.  Ranked at level 1 in the Norwegian Register.
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Customer-Specific Robotic Attendant for VR Simulators.</i> Park, J., Yong, H., Ha, S., Lee, J. & Choi, J., 2020.	The article study if replacing human employees with a new type of robotic attendant to operate VR simulators in VR theme parks can improve customer safety, customer satisfaction	By providing personalized services by estimating gender, age and game progress and offer voice services based on this, the findings suggest that this type of robotic attendant can improve customer experience and	Automation and engineering	Quantitative method, questionnaire and experiment.	Scopus Search words: Virtual Reality, theme parks	IEEE Transactions on Automation Science and Engineering.  Ranked at level 1 in the Norwegian Register.

	and reduce operating costs.	satisfaction. In addition, it can reduce costs as it will cost less than having a human attendant.				
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Exploring thematic influences on theme park visitors' satisfaction: An empirical study on Disneyland China.</i> Bai, S., He, H., Han, C., Yang, M., Yu, D., Bi, X. Gupta, B. B., Fan, W. & Panigrahi, P. K., 2024.	The article explores theme park visitors' satisfaction based on thematic influences by reviewing user-generated data from Shanghai Disney resort.	Theme park service and playing has a significant impact on customer satisfaction. Service attitude from staff, the kids experience, parking and recommending feeling can often have a negative impact on the customer experience.	Consumer behavior	Quantitative and Qualitative method, Topic modelling used to extract textual (qualitative) data from online reviews and network analysis to analyze the data (quantitative).	Scopus Search words: Customer experience, theme parks	Journal of Consumer Behaviour  Ranked at level 1 in the Norwegian Register.
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Integrating the tourist gaze with the social servicescape: Implications for creating memorable theme park experiences.</i> Zheng, Y., Wei, W., Line, N. & Zhang, L., 2021.	The article study how visitors' experiences and affective state is influenced by the perception of other customers behavior, appearance and similarity.	Memorable theme park experiences are positively influenced by arousal and curiosity, which can be activated by other customers behaviors and perceived similarity.	Hospitality management	Quantitative, survey	Scopus Search words: Customer experience, theme parks	International Journal of Hospitality Management  Ranked at level 1 in the Norwegian Register.

Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Customer delight and outrage in theme parks: A roller coaster of emotions.</i> Torres, E. N., Milman, A. & Park, S., 2021.	The article research what is the key drivers that affect visitors' outrage and delight in theme parks in North America using TripAdvisor comments and ratings.	Five key constructs of experiential consumption in theme parks were established: customer service, core products, affective individual experience, pricing, management philosophy and practice.	Hospitality, tourism, marketing and advertising	Qualitative method, content analysis and using a qualitative analysis software.	Scopus Search words: Customer experience, theme parks	International Journal of Hospitality and Tourism Administration  Ranked at level 1 in the Norwegian Register.
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<i>Topic modelling for theme park online reviews: analysis of Disneyland.</i> Luo, J. M., Vu, H. Q. Li, G. & Law, R., 2020.	The article explores customer experience and behavior by using online reviews from Disneyland theme parks.	Customer service, food costs, long waiting time on attractions, hygiene, perception of value for money was the top topics with negative ratings which can impact the customer experience. Topics as happy experience, fantasy/dream and ride experience had high ratings, indicating a positive	Travel and tourism	Qualitative and Quantitative method, Topic modelling used to extract textual (qualitative) data from online reviews, statistical analysis used to analyze the data (quantitative).	Scopus Search words: Customer experience, theme parks	Journal of Travel and Tourism Marketing  Ranked at level 1 in the Norwegian Register.

		impact on customer experience.				
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source
<p><i>Customer emotions minute by minute: How guests experience different emotions within the same service environment.</i> Torres, E. N., Wei, W., Hua, N. &amp; Chen, P. J., 2019.</p>	<p>The article studies customers' emotions during theme park visit and how particular service encounters can affect these emotions.</p>	<p>Interaction with staff, interaction with other guests, first impression of the park, dining experience and enjoyment of rides can influence positive emotions that affect the customer experience. They also found that visitor's positive emotions during queue time on attractions can be associated to positive emotions, therefore queue design is important for the overall experience. Negative emotions were often connected to buying tickets.</p>	<p>Hospitality industry</p>	<p>Quantitative method, Survey</p>	<p>Scopus Search words: Customer experience, theme parks</p>	<p>International Journal of Hospitality Management  Ranked at level 1 in the Norwegian Register.</p>
Title, Author, Year:	Purpose	Findings	Perspective	Method	Database	Source

<p><i>Make it delightful: Customers' experience, satisfaction and loyalty in Malaysian theme parks.</i> Ali, F., Kim, W. G., Li, J. &amp; Jeon, H. M., 2018.</p>	<p>The research article study customer experience in Malaysian theme parks to see what factors can influence emotions such as satisfaction, delight and loyalty.</p>	<p>Interaction with other customers and staff, in addition to the physical environment has a significant effect on customer delight and satisfaction in theme parks. Customer delight has a positive effect on customer satisfaction.</p>	<p>Marketing and management of tourist destinations.</p>	<p>Quantitative method, Survey</p>	<p>Scopus Search words: Customer experience, theme parks</p>	<p>Journal of Destination Marketing and Management  Ranked at level 1 in the Norwegian Register.</p>

## 4. Results Analysis

This section provides an overview of the findings from the 12 research articles that were retrieved. The analysis will summarize overall findings from the existing literature in the customer experience perspective and findings from the virtual reality research. The overall findings will be presented in a table, later in this chapter this study suggest a model based on the findings from the 12 articles in relation to the theory presented in chapter 2.

### 4.1. Findings

In this section the findings that was retrieved from the existing literature by analyzing the final selection of research is presented in table 4. The findings are divided into two categories; findings from the research focusing on virtual reality technology in theme parks, and findings suggested by the research that focus on customer experience in a theme park setting. A further explanation of the findings and results from the 12 studies is then presented.

Table 4. Overall findings from the 12 research articles

	Findings
Virtual reality in theme parks	<ul style="list-style-type: none"> <li>• Compatibility, personalization, ease of use and enjoyment can have a significant effect on customer experience using VR in theme parks. These can have an effect on visitor satisfaction which can lead to customer's revisiting the parks.</li> </ul>



	<ul style="list-style-type: none"> <li>• The overall theme park experience and behavior can be increased by the customer's sense of virtual reality presence, where experiential characteristics of virtual reality applications such as the feeling of control are the most influential on this presence.</li> <li>• Creating emotional attachment is important for visitors when using attractions in the park, this can be accomplished by using narrative-driven, high-quality content to enhance rich storytelling in relation to VR technology.</li> <li>• VR add-ons during roller-coaster rides in theme parks have a better impact on the customer experience and emotional engagement in contrast to regular rides.</li> <li>• Applying a robotic attendant to operate VR simulators in theme parks can increase customer satisfaction and reduce costs.</li> <li>• Concerns regarding the use of virtual reality was related to hygiene and the fit of the equipment.</li> </ul>
Customer experience in theme parks	<ul style="list-style-type: none"> <li>• Service quality, customer-customer interaction, interaction with staff, sense of presence, personalization, enjoyment, compatibility with lifestyle, the feeling of immersion, emotional connection- and attachment and creating a unique experience in theme parks can have a positive impact on customer experience and satisfaction, which can lead to returning guests.</li> </ul>

	<ul style="list-style-type: none"><li>• The customer experience in a theme park setting can be positively influenced by arousal and curiosity, which can be activated by other customer's behaviors and perceived similarity.</li><li>• Physical environment, queue management, food and beverage experience are some factors that can have a significant impact on customer delight.</li><li>• Parking, service quality, long waiting time on attractions and earlier experiences are factors that can have a negative impact on the customer experience. Research suggests these both in relation to negative and positive emotions, it is dependent on how the customers evaluates the experience.</li></ul>
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#### 4.1.1. Virtual Reality in theme parks

Alam et al. (2024) studies which factors that affects guests at theme parks in Malaysia to come back and reuse virtual reality in the parks. The research recommend that the management of the theme parks focus on making the virtual reality technology in the park easy to use because their findings suggest that this is an important factor in customer experience and it can impact their interest to come back to the park. Findings also suggest that it can cost less to get back the same guests that have already been there, instead of getting new ones to come visit. After conducting a field survey with 357 visitors from three theme parks in Malaysia, the results indicate that the most important factors for visitors to come back was enjoyment and

compatibility with lifestyle, the last one meaning that the VR technology is compatible with their lifestyle, fits their habits and requirements.

The research by Wei et al. (2019) suggests that the visitor experience in theme parks is affected by experiential and functional features of virtual reality technology, but the experiential features has the most influence on the consumer's virtual experience. Their findings propose that the sense of presence while using VR technology in theme park attractions was mostly impacted by the experiential aspect of feeling in control in the virtual environment. Sense of presence was defined as the feeling of *being there* and is relevant to explore in connection with VR because the person goes from being in a physical environment to a virtual. Results from the questionnaire including 396 participants strongly indicated that virtual reality presence was mostly present when the visitors felt that they had control in the virtual environment. The feeling of control can be more easily obtained by providing the consumers with instructions before using the VR technology, by doing so it is easier to obtain the optimal experience when entering the new environment. The increased sense of presence and satisfaction obtained by feeling in control in this context can have a positive impact on the consumer's behavioral and emotional aspects. Results indicated that other experiential aspects such as curiosity, participation, enjoyment and temporal association can also have an impact of the sense of presence. The functional features that can have an impact on the presence was effectiveness and vividness. Wei et al. (2019) propose that introducing VR technology in theme park attractions can increase visitor satisfaction which can lead to them recommending the park to potential customers and have an effect on the customers wanting to revisit.

By conducting interviews with theme park professionals and visitors from Korean theme parks, Oh & Kong (2022) suggest that always introducing new innovative VR technology in theme parks will not be enough in itself to make customers revisit the parks, but if the technology

is combined with already existing animation this can generate an emotional attachment for the visitor. Emotional attachment was an important factor for customers as this often creates a feeling of enhanced presence, deeper immersion and emotional connection which could have positive effects on the overall customer experience. Their results suggest that nostalgia can be used to create emotional attachment and the use of animation content in a virtual environment can enhance the immersive experience. By implementing high quality content that is narrative driven and sophisticated in the VR attractions, it could lead to positive customer experience and enhanced satisfaction. The research suggests that theme park management should focus on developing their already existing virtual technology instead of always introducing new systems. Oh & Kong (2022) divide the virtual reality experience in 3 stages: (1) Pre-VR Experience where waiting time is an important experience factor, (2) During VR Experience where visitors can reach a state of flow that is affected by technological performance, ease of control, settings, hygiene and content quality and (3) Post-VR Experience which is related to emotional attachment.

Baastiansen et al. (2022) explores how Virtual Reality Add-ons during a roller coaster ride can impact the customer's emotions and how it relates to the overall experience. By measuring Skin Conductance Levels (SCL) having the visitors wearing a wristband during the ride, they could monitor the slow changes that happen in the skin which is triggered by emotional arousal. Because this method cannot establish if the emotions are positive or negative, the respondents also got a questionnaire to establish their view on the overall experience and the sense of presence during the ride. Data from 53 of the participants was used as the final sample, 24 of them that had the VR add-ons had the experience of sitting in a virtual airplane flying through different settings, while the 29 that had the experience without it experienced the Austrian Alpine style that was the theme around the ride and then entered a cave. The results

from the experiment suggests that the virtual reality ride can create an experience with more positive emotions and arousal than without VR. The customer's "sense of presence" was the same with both experiences, but the "sense of physical space" had a higher score from the people using VR add-ons. Baastiansen et al. (2022) concludes their findings by indicating that adding virtual reality to a roller coaster can enhance the overall customer experience and create more positive emotions.

Burt & Louw (2019) found that the use of virtual reality headsets during roller-coaster rides had significant negative feedback by the consumers. Some of the reasons was that the fit was not optimal and there were several concerns about losing the headsets during the rides, in addition to concerns about the hygiene as they are being reused. The feeling of immersion was an important factor for the visitors and some of the roller-coasters were better at obtaining this feeling than other attractions due to sufficient storytelling and great sound effects that increased the feeling of deeper immersion. A negative impact on the customer experience was long waiting lines and poor management to make this experience more effective, they suggest that the boarding of the roller-coasters could be improved to make it more efficient. From their collected data they point out that the storytelling is an important aspect to create the best experience for customers when using VR in theme parks, because the technology itself is not enough to create the best experience, it has to include several factors such as a rich storytelling to create an immersive experience. Another significant factor also seen in the previous articles, was the user experience in relation to how easy the VR technology was to learn and use.

In the experiment conducted by Park et al. (2020) they introduce a new type of robotic attendant to operate the virtual reality simulator in a theme park that provides personalized services. Their findings suggest that customer satisfaction was increased by using this type of robotic attendant in contrast to using a human attendant. The increased satisfaction level was

impacted by the robotic attendant's ability to offer personalized voice-services. Applying this type of technology in theme parks can also reduce costs as it operates automatically and is more efficient than having a human attendant. By using a data management system with camera images and game data, the robotic attendant could estimate the visitor's gender, age and game progress. The data collected was used to provide a personalized experience. Results also showed that visitors receiving voice services had increased satisfaction in contrast to the ones that did not get this. In addition, there was a difference between male and female participants. There was no particular difference in satisfaction for men that participated in relation to getting the voice services from a female or male robot. But the results showed that female consumers had increased satisfaction when getting voice services from a male robot compared to the consumers getting female voice services. Park et al. (2020) explains that voice services provided by a male had the overall effect of increased satisfaction on both men and women, but the reason for this could be that the experiment was playing a racing game and many seemed to be familiar with male commentators in this sport arena. The robot also provided instructions both before and during the game, which made it easy to play and had a positive effect on the user experience. Findings suggests that the feelings of absorption, engagement and amusement was contributing factors to the overall customer experience.

#### 4.1.2. Customer Experience in theme parks

Bai et al. (2024) suggests that the quality of service and attitude by personnel in theme parks has a strong impact on customer experience and satisfaction. Factors such as poor service in the park, lack of help and friendliness from the employees, in addition to poor parking management and long distances from the parking lot to the theme park entrance had a negative

effect on customer satisfaction. They suggest that customer satisfaction can be increased by creating a unique experience and the feeling of immersion by focusing on thematic aspects in the attractions, which can lead to customers wanting to come back to the park.

Zheng et al. (2021) explores how customer's in a theme park can affect other customer's behavior, emotions and attitudes. The research found that the feeling of curiosity and arousal can be positively impacted by guests observing other guests in theme parks as it is often perceived as entertaining and fascinating. Observing other guests behavior can positively impact the overall experience and make it more memorable. Theme park guests are often energetic and happy because of the setting. In their research they explore the impact of appearance on other customers, but found that appearance did not have a significant effect on the feeling of curiosity and arousal.

Torres et al. (2021) research on North American theme parks evaluates what factors can impact customer delight and negative effects that impact the customer experience. Their results suggest that core products affect customer delight, such as entertainment and roller-coasters. Another key driver for customer delight was the theme park servicescape, which is the physical environment and this can have a significant impact on creating a positive customer experience. Customer service, limited waiting time on attractions and the food and beverage experience were also key factors impacting the overall feeling of delight as this was a part of creating a memorable experience. Torres et al. (2021) found that factors such as poor service, malfunctioning attractions, hygiene, long waiting time on rides, low quality of food and beverage and price was some of the top key drivers for negative emotions. Many thought that the experience was too expensive. The study suggest that customer service, waiting time and food and beverage experience can have a strong impact on both positive and negative emotions according to how the customer perceives the experience.

Luo et al. (2020) explores customer behavior in Disneyland theme parks using topic modelling and found that the topics as *fantasy*, *happy experience* and *dream* retrieved high ratings from customers, especially reviews where the customer shared their happy experience. Creating a happy experience is the top priority of all 3 theme parks as this is an important aspect of Disneyland. Topics that yielded low ratings included expensive food costs, cleanliness/hygiene and value for money. From these findings they propose suggestions for improving the theme park experience, such as parking services and restaurant experience should get a bigger focus by theme park management. The research suggests that improving these can have a significant impact on the customer experience. Also improving customer's perception of value for money and food price by for example offering quality services and food options can increase the overall experience. Long waiting time for attractions was one of the factors that had a negative effect on the experience. By getting the staff to suggest alternative rides they can avoid overcrowding on specific attractions, which can have a positive effect on the consumers as they get better service and make the queue time more efficient.

Torres et al. (2019) research focus on customer emotions in a theme park setting. Their results suggest that there were mostly positive emotions related to service encounters within the theme park service environment. The study discuss that each service encounter has an impact on specific customer's emotions in a theme park, which means that the physical space (servicescape), retail, dining experience, interaction between customers (customer-to-customer interaction) and interaction with staff (customer-to-employee interaction) can have a significant impact on the consumer's emotions. The phenomenon emotional contagion refers to the exchange of emotions that can occur between staff and customers when interacting with each other. Results from their study suggests that first impression when arriving at the theme park, waiting time for attractions, interaction with other customers and food and beverage experience had significant



impact on customer emotions and appeared to have a positive effect on the overall customer experience. Enjoyment of rides and the rides itself was the most important aspect for creating a satisfying experience. Factors that could negatively impact the experience was found to be the retail experience, emphasizing the purchasing of tickets as negatively impacting emotions and the overall satisfaction.

Ali et al. (2018) explores the impact of customer experience on the feeling of delight, loyalty and satisfaction. Their findings suggest that customer satisfaction and delight is significantly impacted by interaction with employees, the physical setting and customer-to-customer interaction. In their research they refer to customer delight as the experience of a service or product that produce a reaction resulting in creating an unforeseen level of satisfaction or value. The feeling of delight can be a result of positive emotions created by experiences. The research aims to explore the physical and social aspects on customer experience and how it can affect delight and satisfaction. Ali et al. (2018) research looks at the physical environment in relation to the ambient elements, as this element can include temperature, lighting, sound, smell and appearance, which is elements that is directly perceived by the sense organs and evokes emotions. Arousal is described as the degree of which a customer feels active and stimulated, and arousal is an emotional factor of delight.

#### 4.1.3. Effects of Virtual Reality on Customer Experience in theme parks

The model by Godovykh & Tasci (2020) suggests four components; affect, cognition, sensory and conation to capture the total customer experience in tourism, from pre, during and post experiences. According to the authors, the sensorial (sensations) and affective (emotional)

are closely related and intertwined to cognition (thoughts) and conation (actions) as the first two components affects the last two. Based on Godovykh & Tasci's (2020) model, findings from the 12 articles suggests that the affective component can be a significant component to discuss when reviewing the effects of virtual reality on customer experience in theme parks. The sensorial component can also be connected to VR in relation to customer experience, as this component is related to a person's senses such as vision, sound, smell and taste. Ali et al. (2018) relates the ambient elements of sensory to the affective component by reviewing the emotions that these factors impact. Therefore, this study focus on a similar perspective and emphasize the emotional responses that is a result of sensorial aspects. Based on the review of the research articles, it might suggest that the factors that were repeated the most in customer experience literature can be related to the affective component when reviewing this in relation to VR technology. The results show several findings of other important factors impacting the overall experience in a theme park setting, but when viewing this in relation to virtual reality, the proposed factors seem to be the most significant when exploring the effect that virtual reality can have on the overall experience in theme parks. Based on these findings, this study propose the model in figure 2.

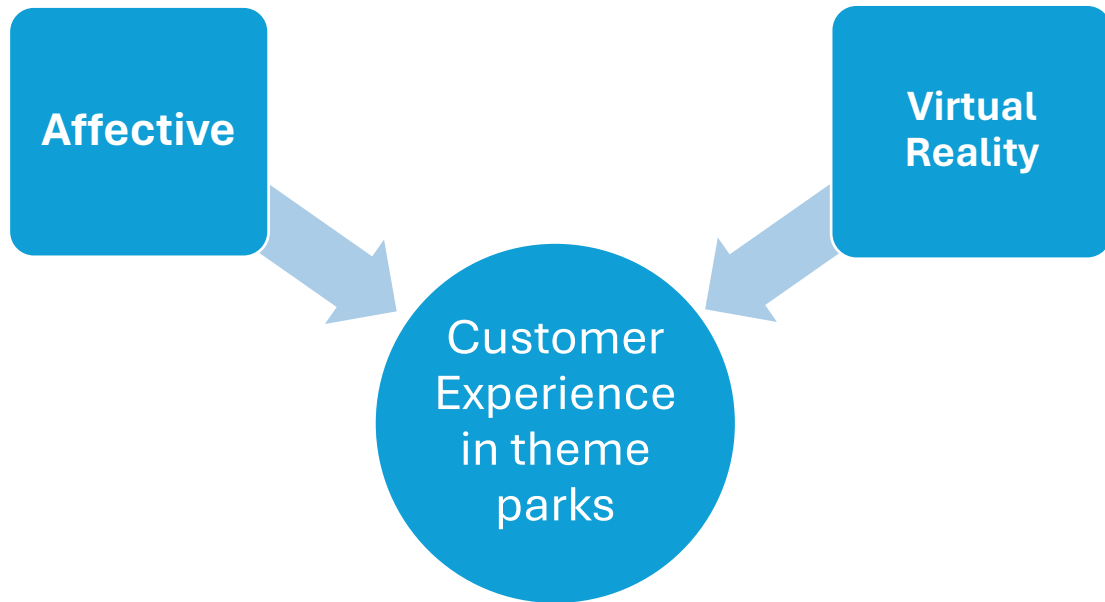


Figure 2. The effect of virtual reality on customer experience in theme parks

The virtual reality component in the model is based on findings from the articles discussing virtual reality, where the research might suggest that the most significant factors in VR experience that can be related to customer experience in theme parks are user experience and storytelling. The user experience in this context can be related to the ease of use, meaning how easy it is to learn and use the technology, the sense of presence, in addition to the fit of the equipment, the equipment should have an optimal fit for the individual user. Oh & Kong (2022) discuss the importance of the ease of use in relation to virtual reality and its effect on customer experience. Research suggest that a key element in user experience is the sense of presence in a virtual environment, Wei et al. (2019) suggest that this experiential feature has a significant impact on the experience specifically related to the feeling of control in the environment. According to this research, the feeling of being in control can have an influence on positive emotions (affective). The sense of presence can also be influenced by feelings of enjoyment and curiosity. The research by Burt & Louw (2019) discuss the importance of optimal fit of

equipment, similarly to Alam et al. (2024) they suggest that the user experience has a significant impact on the customer experience in relation to VR technology. Compatibility with lifestyle implies that the VR technology is compatible with the individual consumer's habits, values and requirements, which is also a part of the user experience. According to Alam et al. (2024), compatibility with lifestyle is an important factor for visitors to return to the theme parks. The research suggests that storytelling in virtual reality can have a significant effect on creating a unique and memorable experience. Oh & Kong (2022) suggest that high quality content, sound effects and a rich storytelling can generate emotional attachment which can lead to the feeling of deeper immersion, enhanced presence and emotional connection, these are related to the affective component in customer experience. The research by Burt & Louw (2019) also propose that sufficient storytelling and quality sound can create a feeling of deeper immersion and is important in customer experience. Storytelling and sound effects can also be linked to the sensorial component as these impact the consumer's senses in terms of vision and sound. The findings suggest that the affective component in the model related to the factors that have the most significant effect on customer experience and can be related to virtual reality is: the feeling of immersion, enjoyment, emotional attachment, curiosity and arousal. As mentioned, curiosity and enjoyment can have an impact on sense of presence in a virtual environment. Wei et al. (2019) and Alam et al. (2024) discuss enjoyment as an important factor for customer experience. Baastiansen et al. (2022) suggest that VR roller-coasters can create enhanced arousal and positive emotions in contrast to regular rides. Emotional attachment can be related to great storytelling and sound effects, according to Oh & Kong (2022) and Burt & Louw (2019). The research by Wei et al. (2019) discuss the significant effect that curiosity can have on sense of presence in VR environments, while Zheng et al. (2021) suggest that curiosity have a significant effect on customer experience.

## 5. Discussion

The model suggests that storytelling and user experience, including ease of use, sense of presence, fit of equipment and compatibility with lifestyle, can have a significant impact on the customer experience in theme parks. The affective component comprising of the feeling of immersion, enjoyment, emotional attachment, curiosity and arousal for the consumer, can be positively impacted by user experience and sufficient storytelling and quality sound in virtual reality experiences. The findings that suggest a significant effect of immersion and storytelling on the customer experience, correlates with the research by Fu et al. (2023) in chapter 2 as their research also found a link between these factors.

Park et al. (2020) propose introducing a robotic attendant with VR simulators as it can reduce costs and make the overall experience more efficient. Using a human attendant is more time consuming as the person can only help one customer at a time, while the robotic service offer voice instructions on each simulator, and if there are any challenges during the game the robot can immediately give instructions to help the customer overcome the obstacles. A suggestion can be to conduct further research on this type of technology and see if it could be introduced in other areas of the theme parks. Findings from the research propose that the feeling of immersion and creating a unique and memorable moment has a significant impact on the customer experience, and virtual reality technology can contribute to enhancing this feeling. The technology in the research by Park et al. (2020) using personalized voice services could be considered to be implemented on roller coasters using virtual reality to create an even more memorable experience. Alam et al. (2024) propose that VR technology that is compatible with the customers lifestyle can impact their experience and revisit intentions. Further research on personalized robotic voice service in relation to VR can be relevant to offer a service that fits the

individual person. In the research by Park et al. (2020) where data was collected of the customers gender and age, this type of technology can have the opportunity to tailor the experience according to compatibility with lifestyle.

Factors such as the fit of the equipment and how easy it is to use and learn should be taken into consideration because it has an effect on the experience, if the customer struggle to keep a VR headset on during a ride or has trouble understanding how to use the technology, it can have a negative impact on the emotional attachment when looking back at the experience, as suggested by Oh & Kong (2022) impacts the Post-VR Experience.

Long waiting time on attractions was suggested as a negative factor on customer experience in several of the research. By making it more efficient results suggest that this could have a positive impact on customer experience. A robotic attendant could suggest other attractions to avoid overcrowding on a few attractions if there are others with limited waiting time. According to Oh & Kong (2022) in the Pre-VR experience, an important experience factor is the waiting time for the attraction. If such technology can be applied in the waiting lines on virtual reality roller-coasters it can have an impact on the overall impression of the experience. As research by Torres et al. (2021) and Luo et al. (2020) suggests that long waiting time can create negative emotions which relates to the affective state, this is a relevant factor to take into consideration by park managers. Literature suggest that several of the factors that indicated to have a negative impact on the customer experience, can also have a positive impact on the experience. Such as waiting time for rides was both suggested as a negative and positive factor on customer experience, depending on how the customer perceived the experience. If the park focuses on queue management to limit the waiting time on attractions, it can result in positive emotional responses from the customers. But if the visitors has to use a significant amount of time on waiting in lines for each attraction, it can lead to negative responses.

The research by Torres et al. (2019) suggests that customer-to-employee interactions and customer-to-customer interactions have a significant impact on customers emotions, which affects the overall experience. The research by Ali et al. (2018) has a similar perspective and suggest that the physical environment, staff-to-customer interaction and customer-to-customer interaction can be connected to the affective component because these experiences have an emotional effect on the customer. The study by Park et al. (2020) propose that theme parks would benefit from introducing a robotic attendant in VR simulators because it can increase efficiency, reduce costs and create a better experience for the customers. A negative effect of introducing this new technology can be that the lack of interaction with employees can decrease the emotional value for the customer that can be generated from this interaction, which again can affect the evaluation of the experience. In addition, VR technology introduced to roller-coasters often includes using equipment such as headsets as seen in the study by Baastiansen et al. (2022). This can create limitations in relation to customer-to-customer interactions. This can be related to the theory by Merkx and Nawijn (2021) presented in chapter 2 on isolation in VR experiences. Their research suggested that consumers could experience a contemporary feeling of isolation because of the lack of interaction with other individuals.

Torres et al. (2019) propose that it is the roller-coasters in a theme park that has the most significant impact on customer emotions and the overall customer experience. This suggests that theme parks could gain on introducing VR technology in their attractions. As proposed by Alam et al. (2024) and Wei et al. (2019) introducing new virtual reality technology in theme park attractions can impact the customers in terms of them revisiting the park. According to Bose & Rao (2011) getting customers to come back can be more cost efficient than getting new customers.

The research by Spence (2021) mentioned in chapter 2, discuss the use of scents in theme parks as this can enhance the feeling of immersion in particular contexts. Although the research articles retrieved in this integrative review has limited focus on the use of scent in relation to virtual reality, this can be relevant for further research as it is a sensorial component in customer experience and can have a significant impact on the customer's emotional response.



## 6. Conclusion

This study attempts to explore the research question: *how can virtual reality affect customer experience in theme parks?* The study propose a model based on the affective component from Godovykh & Tasci's (2020) model and the findings retrieved from the 12 articles. The model proposed in this study suggest that virtual reality can affect customer experience in theme parks. The virtual reality component in the model includes the user experience (ease of use, sense of presence, fit of equipment and compatibility with lifestyle) and storytelling with quality content and sound effects. The affective component includes the feeling of immersion, enjoyment, emotional attachment, curiosity and arousal, whereas the user experience and storytelling in virtual reality can have a significant impact on the affective aspects.

The information and findings retrieved by collecting data can be utilized in the tourism and hospitality industry to create a better understanding of the customers visiting theme parks and what factors that impacts their experience in both negative and positive ways. By using this information, the management and theme park owners can enhance the customer experience by for example introducing virtual reality in their theme park attractions or develop their VR technology to create an immersive experience. By focusing on new innovative ideas in relation to VR in theme parks, it can gain more customers in the parks and increase their revenue. As proposed in the study, findings suggest that it can be economically beneficial to have customers coming back to the park as this can save more money in contrast to always trying to attract new customers. The study discuss suggestions regarding areas that could be focused on to improve the overall experience, this can be relevant for park administrators to take into consideration. This research also presents knowledge that can be applied by marketing teams, by understanding the customer

and their needs and wants it can be easier to reach the consumer by focusing their marketing strategy in these areas.

## 6.1. Limitations

This study attempts to identify how virtual reality can affect customer experience in theme parks. By reviewing existing literature to propose repeated concepts and patterns in the research, the study can be a tool to suggest future research in this area. The study has several limitations, first it was only used one database (Scopus) to retrieve research. By expanding the search to other databases it could yield a bigger selection of research. Another limitation for this study is that it only included research published in journals between 2018-2024. Research on customer experience has a long history, by only including research from the past 7 years there is a possibility that relevant research was excluded. The reason for this was that existing literature suggests that customer emotions, behaviors and expectations has changed the recent years due to development in society and new technologies. In addition, only scientific research written in English was included in this study because of the language barrier, which can result in exclusion of relevant articles conducted by researchers where English is not their first language. Another limitation is the use of only three search words in the selection process, other search words could also have been included such as “visitor satisfaction”, “guest satisfaction”, “customer satisfaction”, “customer loyalty” or “visitor experience” as these are related to customer experience. Due to the amount of research that this would result in, the decision was made to only use three search words. Because this integrative review has a limited number of articles in the final selection of research, a larger data sample could retrieve more information and better understanding of the topic. Based on this, this study suggests further research should be

conducted to get a more comprehensive insight into the utilization of virtual reality technology and how it can enhance the customer experience in theme parks. In addition, a limitation for this integrative review is that the search process, screening and selection of data was only conducted by one author, which can increase bias. The study attempts to use a systematic approach when searching, screening and selecting articles, explaining the process of how the research was retrieved, as well as establishing specific inclusion and exclusion criterias and describe these, in attempt to reduce bias.

## 7. References

Ali, F., Kim, W. G., Li, J. & Jeon, H. M. (2018). Make it delightful: Customers' experience, satisfaction and loyalty in Malaysian theme parks. *Journal of Destination Marketing & Management*, 7, 1-11. <https://doi.org/10.1016/j.jdmm.2016.05.003>

Alam, M. N., Turi, J. A., Bhuiyan, A. B., Kharusi, S. A., Oyenuga, M., Zulkifli, N. & Iqbal, J. (2024). Factors influencing intention for reusing virtual reality (VR) at theme parks: the mediating role of visitors satisfaction. *Cogent Social Sciences*, 10(1). <https://doi-org.ezproxy.uis.no/10.1080/23311886.2023.2298898>

Bose, S. & Rao, V. G. (2011). Perceived Benefits of Customer Loyalty Programs: Validating the scale in the Indian context. *Management & Marketing Challenges for the Knowledge Society*, 6(4), 543-560.  
[https://www.researchgate.net/publication/227430498\\_Perceived\\_benefits\\_of\\_customer\\_loyalty\\_programs\\_validating\\_the\\_scale\\_in\\_the\\_Indian\\_context](https://www.researchgate.net/publication/227430498_Perceived_benefits_of_customer_loyalty_programs_validating_the_scale_in_the_Indian_context)

Bagdare, S. & Jain, R. (2013). Measuring retail customer experience. *International Journal of Retail & Distribution Management*, 41(10), 790-804. <https://doi-org.ezproxy.uis.no/10.1108/IJRDM-08-2012-0084>

Bonaiuto, M., Mao, Y., Roberts, S., Psalti, A., Ariccio, S., Cancellieri, U. G. & Csikszentmihalyi, M. (2016). Optimal Experience and Personal Growth: Flow and the

Burt, M. & Louw, C. (2019). Virtual reality enhanced roller coasters and the future of entertainment – audience expectations. *World Leisure Journal*, 61(3), 183–199. <https://doi-org.ezproxy.uis.no/10.1080/16078055.2019.1639274>

Bastiaansen, M., Oosterholt, M., Mitas, O., Han, D. & Lub, X. (2022). An Emotional Roller Coaster: Electrophysiological Evidence of Emotional Engagement during a Roller-Coaster Ride with Virtual Reality Add-On. *Journal of Hospitality & Tourism Research*, 46(1), 29-54. <https://doi.org/10.1177/1096348020944436>

Bai, S., He, H., Han, C., Yang, M., Yu, D., Bi, X., Gupta, B. B., Fan, W. & Panigrahi, P. K. (2024). Exploring thematic influences on theme park visitors' satisfaction: An empirical study on Disneyland China. *Journal of Consumer Behaviour*, 23(1), 90–106. <https://doi-org.ezproxy.uis.no/10.1002/cb.2157>

Cohen, S. A., Higham, J. E. S. & Cavaliere, C. T. (2011). *Annals of Tourism Research*, 38(3), 1070-1089. <https://doi.org/10.1016/j.annals.2011.01.013>

Cacioppo, J. T. & Cacioppo, S. (2014). Social Relationships and Health: The Toxic Effects of Perceived Social Isolation. *Social and Personality Psychology Compass*, 8(2), 58-72.

<https://doi-org.ezproxy.uis.no/10.1111/spc3.12087>

Consolidation of Place Identity. (2016). *Frontiers in Psychology*, 7.

<https://doi.org/10.3389/fpsyg.2016.01654>

Cambridge Dictionary. (2024). *Theme Park*.

<https://dictionary.cambridge.org/dictionary/english/theme-park?q=theme+parks>

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N. & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296.

<https://doi.org/10.1016/j.jbusres.2021.04.070>

Edwards, B. (2023). *Disney explores cutting costs through AI use*.

<https://arstechnica.com/information-technology/2023/08/disney-ai-task-force-aims-to-cut-costs-enhance-experiences-across-the-company/>

Forsberg, C. & Wengström, Y. (2016). *Att göra systematiska litteraturstudier : värdering, analys och presentation av omvårdnadsforskning*. (4. utg. ed.). Stockholm: Natur och kultur.

Furunes, T. (2019). Reflections on systematic reviews: moving golden standards? *Scandinavian Journal of Hospitality and Tourism*, 19(3), 227–231.

<https://doi.org/10.1080/15022250.2019.1584965>

Fu, X., Baker, C., Zhang, W. & Zhang, R. (Effie). (2023). Theme Park Storytelling: Deconstructing Immersion in Chinese Theme Parks. *Journal of Travel Research*, 62(4), 893-906. <https://doi.org/10.1177/00472875221098933>

Gupta, S. & Vajic, M. (2000). The contextual and dialectical nature of experiences. *New Service Development: Creating Memorable Experiences*, 33-51. SAGE Publications, Inc.

<https://doi.org/10.4135/9781452205564>

Grundey, D. (2008). Editorial Applying sustainability principles in the economy. *Technological and Economic Development of Economy*, 14(2), 101-106. [https://doi.org/10.3846/1392-](https://doi.org/10.3846/1392-8619.2008.14.101-106)

[8619.2008.14.101-106](https://doi.org/10.3846/1392-8619.2008.14.101-106)

Godovykh, M. & Tasci, A. D. A. (2020). Customer experience in tourism: A review of definitions, components, and measurements. *Tourism Management Perspectives*, 35.

<https://doi.org/10.1016/j.tmp.2020.100694>

Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K. & Shankar, V. (2020). Transforming the Customer Experience through New Technologies. *Journal of Interactive Marketing*, 51(1), 57-71.

<https://doi-org.ezproxy.uis.no/10.1016/j.intmar.2020.04.001>

Knobloch, U., Robertson, K. & Aitken, R. (2017). Experience, Emotion, and Eudaimonia: A Consideration of Tourist Experiences and Well-being. *Journal of Travel Research*, 56(5), 651-662. <https://doi-org.ezproxy.uis.no/10.1177/0047287516650937>

Khan, R. U., Salamzadeh, Y., Iqbal, Q. & Yang, S. (2022). The Impact of Customer Relationship Management and Company Reputation on Customer Loyalty: The Mediating Role of Customer Satisfaction. *Journal of Relationship Marketing*, 21(1), 1-26.

<https://doi.org/10.1080/15332667.2020.1840904>

Luo, J. M., Vu, H. Q., Li, G. & Law, R. (2020). Topic modelling for theme park online reviews: analysis of Disneyland. *Journal of Travel & Tourism Marketing*, 37(2), 272–285. <https://doi-org.ezproxy.uis.no/10.1080/10548408.2020.1740138>

Lowood, H. E. (2024). Virtual Reality. *Encyclopedia Britannica*.

<https://www.britannica.com/technology/virtual-reality>

Merkx, C. & Nawijn, J. (2021). Virtual reality tourism experiences: Addiction and isolation. *Tourism Management*, 87. <https://doi.org/10.1016/j.tourman.2021.104394>

Norwegian Register For Scientific Journals, Series and Publishers. (2024). *About the Register for Scientific Journals, Series and Publishers*. <https://kanalregister.hkdir.no/publiseringskanaler/Om>



Oh, J. E. & Kong, A. (2022). VR and Nostalgia: Using Animation in Theme Parks to Enhance Visitor Engagement. *Journal of Promotion Management*, 28(2), 113–127. <https://doi-org.ezproxy.uis.no/10.1080/10496491.2021.1987951>

Pine II, B.J. and Gilmore, J.H. (1999). *The Experience Economy*. Harvard Business School Press, Boston.

Packer, J. & Ballantyne, R. (2016). Conceptualizing the Visitor Experience: A Review of Literature and Development of a Multifaceted Model. *Visitor Studies*, 19(2), 128–143. <https://doi-org.ezproxy.uis.no/10.1080/10645578.2016.1144023>

Park, J., Yong, H., Ha, S., Lee, J. & Choi, J. (2020). *IEEE Transactions on Automation Science and Engineering*, 17(4), 1901-1910. [10.1109/TASE.2020.2980305](https://doi.org/10.1109/TASE.2020.2980305)

Prisma-statement.org. (2020). *Welcome to the NEW Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) website*. <https://www.prisma-statement.org/>

Rangaswamy, A., Moch, N., Felten, C., Bruggen, G. V., Wieringa, J. E. & Wirtz, J. (2020). The Role of Marketing in Digital Business Platforms. *Journal of Interactive Marketing*, 51, 72-90. <https://www.sciencedirect.com/science/article/pii/S1094996820300876>

Schmitt, B. (1999). Experiential Marketing. *Journal of Marketing Management*, 15(1–3), 53–67.

<https://doi-org.ezproxy.uis.no/10.1362/026725799784870496>

Sussmann, S. & Vanhegan, H. (2000). Virtual Reality and the Tourism Product Substitution or Complement?. *ECIS 2000 Proceedings*, 117. <http://aisel.aisnet.org/ecis2000/117>

Srivastava, M. & Kaul, D. (2016). Exploring the link between customer experience–loyalty–consumer spend. *Journal of Retailing and Consumer Services*, 31, 277-286.

<https://doi.org/10.1016/j.jretconser.2016.04.009>

Spence, C. (2021). Scenting Entertainment: Virtual Reality Storytelling, Theme Park Rides, Gambling, and Video-Gaming. *I-Perception*, 12(4). <https://doi.org/10.1177/20416695211034538>

Shaheen, N., Shaheen, A., Ramadan, A., Hefnawy, M. T., Ramadan, A., Ibrahim, I. A., Hassanein, M. E., Ashour, M. E. & Flouty, O. (2023). Appraising systematic reviews: a comprehensive guide to ensuring validity and reliability. *Frontiers Research Metrics*, 8.

<https://doi.org/10.3389/frma.2023.1268045>

Science Publisher Company. (2024). *Scopus & Web of Science: How to choose the best journal based on its indexing?* <https://science-publisher.org/scopus-web-of-science-how-to-choose-the-best-journal-based-on-its-indexing/>

Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review*, 4(3), 356-367. <https://doi-org.ezproxy.uis.no/10.1177/1534484305278283>

Thagaard, T. (2009). *Systematikk og innlevelse, en innføring i kvalitativ metode*. (3. utg.). Bergen: Fagbokforlaget.

Torres, E. N., Wei, W., Hua, N. & Chen, P. J. (2019). Customer emotions minute by minute: How guests experience different emotions within the same service environment. *International Journal of Hospitality Management*, 77, 128-138. <https://doi.org/10.1016/j.ijhm.2018.06.021>

Torres, E. N., Milman, A. & Park, S. (2021). Customer delight and outrage in theme parks: A roller coaster of emotions. *International Journal of Hospitality & Tourism Administration*, 22(3), 338–360. <https://doi-org.ezproxy.uis.no/10.1080/15256480.2019.1641455>

Teigen, K. H. (2021). *Holisme*. Store Norske Leksikon. <https://snl.no/holisme>

UCF Online. (2024). VR theme parks revolutionizing amusement hospitality by enhancing visitor experience. *University of Central Florida*. <https://www.ucf.edu/online/hospitality/news/vr-theme-parks-revolutionizing-amusement-hospitality/>

Westbrook, R. A. & Oliver, R. L. (1991). The Dimensionality of Consumption Emotion Patterns and Customer Satisfaction. *Journal of Consumer Research*, 18(1), 84-91. <https://doi.org/10.1086/209243>

Wong, A. (2004). The role of emotional satisfaction in service encounters. *Managing Service Quality: An International Journal*, 14(5), 365-376. <https://doi-org.ezproxy.uis.no/10.1108/09604520410557976>

Wei, W., Qi, R. & Zhang, L. (2019). Effects of virtual reality on theme park visitors' experience and behaviors: A presence perspective. *Tourism Management*, 71, 282-293. <https://doi.org/10.1016/j.tourman.2018.10.024>

Zheng, Y., Wei, W., Line, N. & Zhang, L. (2021). Integrating the tourist gaze with the social servicescape: Implications for creating memorable theme park experiences. *International Journal of Hospitality Management*, 93. <https://doi.org/10.1016/j.ijhm.2020.102782>