

Czech University of Life Sciences Prague

Faculty of Economics and Management



Master Thesis

**Utilizing Virtual Reality in the Restaurant Industry in order to
Increase Sales**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

AmirAbbas Mirakhorloo

Business Administration

Thesis title

Utilizing Virtual Reality in the Restaurant Industry in order to Increase Sales

Objectives of thesis

The aim of this thesis is to evaluate the use of virtual reality in the hospitality industry, specifically in the restaurant industry.

Methodology

The theoretical part will be processed as a specification of basic definitions. With the usage of methods of deduction, induction and comparison of the theory and theoretical rules will be stated which leads to successful accomplishment of the aim of the thesis in general.

The practical part will be based on the own empirical research using primary data collection, data process, analysis and evaluation. Final recommendations will be based on the results of the research.

The proposed extent of the thesis

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Declaration

I declare that I have worked on my diploma thesis titled “**Utilizing Virtual Reality in the Restaurant Industry in order to Increase Sales**” by myself and I have used only the sources mentioned at the end of the master thesis. As the author of the master thesis, I declare that the thesis does not break any copyrights.

In Prague on 31. March.2023

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Title:

**Utilizing Virtual Reality in the Restaurant Industry in
order to Increase Sales**

Abstract

In recent years, virtual reality technology has grown in acceptance and use across a range of industries, from entertainment and education to healthcare and engineering. Although virtual reality (VR) might be advantageous for restaurants, there hasn't been a lot of research on how it might be used in this industry. With respect to the advantages that virtual reality technology might bring to restaurants, it is a little surprising. For example, one potential advantage of VR is that it can give customers engaging and unforgettable experiences. Virtual reality (VR) could help to improve customers' satisfaction with their meals and improve a stronger emotional bound between the customer and the restaurant brand by developing a virtual environment which complements the physical environment of the restaurant. In addition to its potential to improve customer experiences, virtual reality might also increase sales. VR could encourage customers to spend more on their meals or come back to the restaurant in the future by giving them a distinctive and memorable dining experience. In order to better understand how VR affects customer satisfaction and sales in the restaurant industry. This study will look into those effects. This study has the potential to inform and direct future business practices in the industry by filling a gap in the literature and offering empirical evidence on the effects of VR in a restaurant setting. Overall, restaurants have an exciting opportunity to stand out from their rivals and improve the overall customer experience by utilizing virtual reality in their operations. This study aims to contribute to the understanding of how VR can be used effectively in the restaurant industry and inform future business practices in this industry by examining the impact of VR on customer satisfaction and sales.

Keywords: Marketing, Marketing communication, Virtual reality, Hospitality industry, Restaurant industry

Abstrakt

V posledních letech se technologie virtuální reality (VR) stává stále populárnější a využívanější v řadě odvětví, a to od zábavy a vzdělávání až po zdravotnictví a inženýrství. Virtuální realita by mohla pro restaurátorský průmysl představovat výhodný artikl, avšak zatím nebylo provedeno tolik studií, aby se přišlo na to, jakým způsobem by bylo možné ji vhodně využít. Je překvapující, že se tímto tématem mnoho studií zatím nezabývalo. Jednou z potenciálních výhod VR je umocnění nezapomenutelného zážitku z gastronomie. Tuto technologii by bylo možné využít ke zlepšení zážitku z jídla a podpořit silnější emoční vztah mezi zákazníkem a značkou restaurace. Cílem by tedy bylo vytvořit virtuálního prostředí, které doplňuje fyzické prostředí restaurace.

Kromě potenciálu zlepšení zážitků z jídla může VR také v restauracích zvýšit prodej. Virtuální realita by mohla podněcovat zákazníky, aby více utratili za svá jídla, nebo se díky výjimečným a nezapomenutelným zážitkům do restaurací opět vraceli.

Abychom lépe porozuměli tomu, jak VR ovlivňuje spokojenost zákazníků a prodeje v restauračním průmyslu, bude tato studie zkoumat její účinky. Diplomová práce má potenciál informovat a směřovat budoucí obchodní postupy v odvětví tím, že zaplní mezery v literatuře a nabídne empirické důkazy o účincích virtuální reality v prostředí gastronomie.

Virtuální realita v současnosti nabývá ve společnosti na oblibě. Proto představuje pro restaurace, které by jí nabídly zákazníkům, novou a vzrušující příležitost, jak vyniknout mezi svou konkencí.

Klíčová slova: Marketing, Marketingová komunikace, Virtuální realita, Pohostinství, Restaurální průmysl

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List of Abbreviations

VR: Virtual Reality

N-VR: Non-Virtual Reality

HMD: Head-mounted display

PTSD: Post-traumatic stress disorder

TAM: Technology Acceptance Model

SERVQUAL: Service Quality

PU: Perceived Usefulness

EU: Perceived ease of Use

MIT: Massachusetts Institute of Technology

TRA: Theory of reasoned action

BI: Behavioural Intention to use

1 Introduction

The restaurant industry is a competitive and ever-changing industry that constantly attempts to attract and retain customers. Restaurants should continue to innovate and set themselves apart from the competition by utilizing cutting-edge technologies like virtual reality (VR) if they want to stay ahead of the competition. VR can give customers some interesting experiences that improve how much they enjoy their meals and strengthen their emotional connections to the restaurant brand.

1.1 Background and Rationale for the Study

One of the most dynamic and quickly-paced industries in the world is the restaurant industry. It is a service-based industry that meets the requirements of numerous millions of people worldwide. Restaurants provide a wider choice of services, from serving food and drinks to creating a pleasant environment for customers. The food and beverage industry, which makes a substantial contribution to the global economy, includes the restaurant business as an essential component. The restaurant industry plays a vital role in the global economy by creating jobs, generating income, and offering customers a variety of dining choices. Despite the vital role of the restaurant industry in the global economy, this business is constantly up against a number of difficulties, from highly competition to recessions and shifting consumer tastes.

When people gathered to dine and drink in ancient Rome, the history of the restaurant business began. The first contemporary restaurant started in France in the 18th century. The notion of the restaurant rapidly gained traction throughout the world, and by the 19th century, it had grown to play a sizable role in the hospitality industry (Uysal et al., 2018).

Nowadays, restaurants can be found almost anywhere in the globe and are considered as an essential component of contemporary society. The fast-casual dining trend and the rising popularity of delivery and takeout choices are just two recent examples of the significant changes the restaurant industry has experienced. The business faces both difficulties and opportunities for expansion as a result of these changes.

Intense competition is one of the main issues facing the restaurant business. It can be difficult for newcomers to establish a presence because there are so many eateries vying for customers' satisfaction. Due to their continuous need to adjust to shifting consumer tastes and market trends, established restaurants also struggle to maintain their market share and

profitability. The effects of economic downturns are another issue the industry is currently experiencing. Consumers may be more careful with their purchasing during uncertain economic times and may be less likely to eat out or spend money on luxuries.

Restaurants may experience a decline in sales and revenue, making it challenging for them to maintain their profitability. Customers frequently depend on their waiters to describe the dishes on the menu when they visit a restaurant, or they make assumptions based on the images given. Unfortunately, this occasionally results in disappointment when the customer's meal is delivered, creating an unpleasant dining experience that may cause the customer to permanently stop visiting the eatery.

Due to the ongoing development of technology, restaurants have the chance to enhance the dining experience of their customers by offering new methods for them to view not only the menu items, but also the history of the city where the restaurant is located. Restaurants can help customers make decisions and gain their confidence, which will eventually result in brand loyalty, by giving them a more accurate and informative representation of the food and drink choices (Koui, 2017).

In spite of these difficulties, the eatery industry offers a lot of room for expansion. The possibility for innovation is one of the most important opportunities. Restaurants can set themselves apart from rivals and draw a devoted clientele by providing distinctive eating experiences, imaginative menus, and cutting-edge technologies. Moreover, the restaurant industry has the ability to use new technologies to improve customer satisfaction and streamline operations. Virtual reality is one of the most promising technologies, and it has the power to completely change how customers engage with restaurants and their menus. Restaurants can offer distinctive dining experiences and raise customer happiness by offering immersive and interactive virtual experiences.

The restaurant business is a highly competitive and ever-evolving industry that is constantly looking for new strategies to draw in and keep consumers. Because consumers have so many choices, restaurants must constantly innovate and set themselves apart from the competition to remain competitive. Utilizing cutting-edge technologies like virtual reality is one possible way to stand out. Restaurants can improve their current food menus with digital content that offers interactive and in-depth visual information about the dishes by integrating AR into the purchasing process. It can significantly enhance customer satisfaction and, eventually, increase sales (Arioputra & Lin, 2015).

In recent years, virtual reality technology has grown in acceptance and use across a range of industries, from entertainment and education to healthcare and engineering. Although virtual reality (VR) might be advantageous for eateries, there hasn't been a lot of study on how it might be used in this industry. With respect to the advantages that virtual reality technology might bring to restaurants, it is a little unexpected. For example, one possible advantage of VR is that it can give users engaging and unforgettable experiences.

Virtual reality could help to improve customers' satisfaction with their meals and foster a stronger emotional bond between the customer and the restaurant business by developing a virtual environment that complements the physical environment of the restaurant. VR technology has given the food industry a plethora of choices, making it more crucial than ever for restaurants to adopt these developments (Chaurasiya et al., 2019). By doing this, they maintain their competitiveness in an increasingly digital world while also enhancing the dining experience for their clients. In addition to its ability to improve customer experiences, virtual reality might also increase sales.

VR could encourage customers to spend more on their meals or come back to the eatery in the future by giving them a distinctive and memorable dining experience. In order to better understand how VR affects customer satisfaction and sales in the restaurant industry, this research will look into those effects also this research has the potential to inform and direct future business practices in the industry by filling a gap in the literature and offering empirical evidence on the effects of VR in a restaurant environment.

Overall, restaurants have a significant opportunity to differentiate from their rivals and improve the overall customer experience by utilizing virtual reality in their operations. This research aims to contribute to the understanding of how VR can be used successfully in the restaurant industry and educate future business practices in this industry by examining the impact of VR on customer satisfaction and sales.

1.2 Research Questions and Objectives

1.2.1 Research Questions

1. Does utilizing virtual reality have any significant effect on increasing sales in the restaurant industry?

2. Is utilizing virtual reality (VR) more effective than non-virtual reality in increasing sales in the restaurant industry?

1.2.2 Objectives

1-To review the literature on virtual reality and its application in various industries, including the restaurant industry.

2-To design and implement a randomized controlled trial to test the effects of virtual reality on customer satisfaction and sales in a restaurant setting.

3-To collect and analyse data on customer satisfaction and sales from the experimental and control groups.

4-To draw conclusions about the effects of virtual reality on customer satisfaction and sales in the restaurant industry.

5-To provide recommendations for restaurant operators and managers on how to effectively use virtual reality to enhance the customer experience and increase sales.

1.3 Significance of the Study

1.3.1 Theoretical significance

This study examines how virtual reality affects customer satisfaction and sales in the restaurant industry, which has significant theoretical implications. Although virtual reality has been extensively researched in the healthcare, education, and entertainment industry, its use in the restaurant industry has received less satisfaction. Therefore, this study offers a fresh viewpoint on the potential advantages and difficulties of using virtual reality in this fiercely competitive and client-focused industry. This study adds to the growing body of research on the use of technology to improve the customer experience by examining the emotional and psychological mechanisms that underlie the effects of virtual reality on customer satisfaction and sales.

According to the study's findings, virtual reality has the potential to give customers a more memorable and engaging experience, increasing both satisfaction and sales. This has important implications for the restaurant industry, which depends heavily on customer satisfaction to generate revenue. This study also advances our knowledge of the underlying processes that virtual reality uses to improve the customer experience. This study offers a deeper understanding of how virtual reality can give users a more immersive experience by

examining the cognitive and emotional responses of participants in the experimental group. The use of virtual reality in different industries can be improved with the help of this information.

Overall, this study can have a contribution to the body of knowledge on the application of virtual reality in various industries is what gives it theoretical significance. The study sheds light on the particular characteristics of this technology that could affect the effectiveness of virtual reality and offers insightful information about the potential effects of virtual reality in the restaurant industry. The study's results provide a theoretical framework for additional research in this field by advancing our knowledge of the emotional and psychological mechanisms that underlie the effects of virtual reality on consumer satisfaction and sales. The study also emphasizes the necessity for restaurants to carefully consider the integration of VR technology, taking into account elements like client preferences, cost-effectiveness, and practicality. Furthermore, it implies that virtual reality might be a potent tool for improving customer experiences and developing fresh avenues for revenue expansion in the restaurant industry.

1.3.2 Practical Significance

The practical significance of this study lies in the identification of particular features and design components that are most effective at capturing customer satisfaction and fostering an experience that is more immersive, as well as the potential for virtual reality to set restaurants apart from their rivals. The study also emphasizes the significance of customer experience and emotional involvement in the restaurant industry and offers suggestions on how to use virtual reality to improve these elements.

1.3.2.1 Identifying Successful Design Features

Finding the particular features and design components that are most effective at capturing customers' satisfaction and fostering a more immersive experience is one of the study's most important practical suggestions (Kotler et. Al., 2021). According to the research, customers found virtual reality encounters that combined their senses such as sight, sound, and touch to be more engaging and memorable. The ability to communicate with virtual items or characters was another feature that enhanced the immersion and engagement of customers in the experiences.

With the help of this knowledge, restaurant owners and managers can create virtual reality experiences that are customized for their particular brand and clientele and successfully highlight their distinctive menu items and ambiance. For example, restaurants could use virtual reality to showcase their distinctive ambiance, or to give city and kitchen tours. Restaurants can set themselves apart from their rivals and draw in new customers who are looking for unique and engaging experiences by giving customers a more comprehensive and engaging experience.

1.3.2.2 Differential from the Competitors

The potential for virtual reality to set restaurants apart from their rivals and draw in new customers is another application of this research. Restaurants can attract new customers who are looking for engaging interesting experiences by offering VR. For restaurants looking to attract younger, tech-savvy customers or those operating in competitive marketplaces, this can be especially advantageous. Restaurants can draw in more clients and boost sales by using virtual reality to set themselves apart from their rivals.

1.3.2.3 The Value of Customer Experience and Emotional Involvement

The study presents a novel tool for enhancing these elements and emphasizes the significance of emotional involvement and customer experience in the restaurant business. VR can help restaurants connect more closely with their customers and foster customer loyalty by providing a more enjoyable and memorable dining experience. This is crucial in a industry where satisfied customers and brand devotion are vital success factors. Restaurants can strengthen their relationships with their customers, improve customer loyalty, and eventually boost sales by utilizing virtual reality to improve emotional involvement and customer experience.

2 Objectives and Methodology

2.1 Objectives

As explained earlier in the objectives of the study section, this study aims to investigate the effect of virtual reality in increasing sales in the restaurant industry. Another objectives is to examine level of customers satisfaction after utilizing VR and exploring its impact on restaurant sales.

This chapter reports the research design and methodology by explaining the participants, the instruments used to accomplish the research, the data collection procedures, and the data analysis employed in the study.

2.2 Methodology

The main purpose of this research is to investigate the effectiveness of virtual reality on increasing sales in the Restaurant Industry. Also, the researcher compares the customers' receipts to investigate whether using virtual reality have any significant effect on restaurant sales. The data collection for receipts was collected by restaurant staff. Therefore, the design of the present study was based on a quantitative approach. A quantitative method differs from qualitative research in a way that it collects and analyses non-numerical data. (Creswell, 2009). Therefore, according to the types of research questions and the objectives of this study, a quantitative approach was selected to obtain a comprehensive and precise result on the effectiveness of the effectiveness of virtual reality on increasing sales in the restaurant industry. This study aimed to investigate the effects of using virtual reality (VR) technology in the restaurant industry on customer satisfaction and interest in the restaurant. The study was conducted at a local restaurant in Kiel, Germany, where participants were recruited from the surrounding community. The participants were randomly assigned by the researcher. The researcher selected 34 participants from various ages and gender and divided into groups including VR and N-VR groups. Data for this study was collected through both survey and receipt analysis. All participants were taught by operator how to use virtual reality devices. The treatment group used virtual reality glasses twice during the process. Once before ordering a drink and a second time before ordering the main course. HMD (head mounted display) was given to only VR group, while non-virtual reality was not utilized HMD. The survey was administered immediately after the participant's meal was finished. To measure sales, the participants' receipts from their dining experience were collected by the restaurant staff. The researcher provided data analysis with *descriptive analysis* and *inferential analysis* to answer the researcher questions (**See Practical Part/Section**).

3 Literature Review

3.1 Overview of virtual reality technology

The field of virtual reality (VR) technology is one which is quickly developing and has made significant strides in recent years. It enables users to engage with virtual objects and characters using specialized equipment like headsets, controllers, gloves, and haptic feedback systems in a computer-generated simulation of a three-dimensional world. Regardless of their physical location, this immersive experience gives users a feeling of presence in a simulated world. It examined the past, present, and future of virtual reality technology in this section.

The first head-mounted display (HMD) was created by computer expert Ivan Sutherland at MIT in the 1950s, which marks the beginning of virtual reality technology. The Sword of Damocles was a bulky and heavy contraption with a narrow field of view and poor resolution. The discovery did open the door for more advancements in immersive virtual environments. VR technology first saw use in military and aerospace settings during the 1960s and 1970s. However, it wasn't until the 1990s that VR technology became more accessible to the general public, leading to its widespread use in the entertainment and gaming industries. Pilot training led to the creation of the first flight simulators, and early VR systems were employed for missile guidance and surveillance. However, the cost and functionality of these devices were prohibitive. VR technology became widely used in the 1980s and 1990s thanks to the development of consumer-grade HMDs and computer visuals. Businesses like VPL Research and Virtuality were among the first to create VR technology for gaming and entertainment. Early in the 1990s, the first VR arcade games went on sale, but they were still out of reach for the majority of players.

VR technology experienced a decline in popularity in the 2000s as a result of a lack of improvements and high prices. But in the 2010s, VR made a comeback thanks to the creation of new display technologies like OLED and LCD, as well as more potent processors.

Affordable and excellent VR headsets were first presented by companies like Oculus VR and HTC Vive, which completely changed the industry. Applications of Virtual Reality Technology: VR technology has many uses in a variety of fields, including schooling, medicine, engineering, and more.

Gaming: The creation of immersive gaming environments that immerse participants in virtual worlds has been made possible by VR technology. Games that have gained a lot of

traction and stretched the limits of VR gaming include Beat Saber, Half-Life: Alyx, and Job Simulator.

Education: VR technology can be used to design interactive, engaging learning experiences that go beyond what is possible in a conventional classroom. In a secure setting, students can learn about challenging scientific ideas, visit foreign locations, or tour historical sites.

Health Care: PTSD, anxiety, and chronic pain are just a few of the diseases that have been treated using VR technology in the medical field. In a virtual setting that is customized to their individual requirements, patients can practice relaxation techniques or exposure therapy.

Engineering: Engineers and architects can visualize and test designs before they are constructed using virtual reality (VR) technology, which can be used to make virtual prototypes of products and buildings. This allows for cost-effective and efficient design iterations, reducing the need for physical prototypes and minimizing errors during construction. Additionally, VR technology can be used to simulate dangerous or hazardous environments for training purposes, allowing engineers and architects to practice safety procedures without risking injury. By identifying possible issues prior to construction, this can save time and money.

The military and aerospace industries have used virtual reality technology for training purposes. Soldiers can practice fighting virtually or learn how to use sophisticated tools in a secure setting.

The Future of Virtual Reality Technology New developments and uses are being created daily, making the future of virtual reality technology exciting. Among the main topics of satisfaction are hardware improvements. VR headset producers are constantly making improvements to the hardware to offer better resolution, wider fields of vision, and more cosy and portable designs. New software is being developed that can more accurately mimic real-world physics, produce more lifelike virtual environments, and improve user interactions.

3.2 Previous Research on Virtual Reality in Hospitality and Tourism Industry

According to the research that has been done so far on the use of virtual reality in the hospitality and tourism industries travellers' attitudes and travel intentions are positively impacted by VR technology. According to studies, Virtual reality can also be used to create smart tourism destinations and improve the tourist experience by personalizing services. To fully comprehend the potential of virtual reality in the hospitality and tourism industries, more research is required as there are still gaps and limitations in the literature. A research agenda is required to direct future studies in this field, as well as more research on the application of augmented reality and mixed reality in the restaurant industry. Additionally, researching how virtual reality affects customer loyalty and satisfaction in the hospitality and tourism industries can offer useful insights for businesses looking to enhance their offerings. Additional study can look into how virtual reality might improve employee training and development programs.

In a study published in 2018, Lee and Yoo investigated the impact of VR on traveller attitudes and intentions. The results of the study revealed that VR had a favourable impact on attitudes and intentions, showing that the technology can be useful for promoting tourist destinations. The study was constrained by its concentration on a single location and its small sample size, which implies that additional research is required to confirm the findings. In order to provide more solid evidence on the efficacy of VR in promoting tourism, future studies may broaden their focus to include more locations and larger sample sizes. This would assist participants in the tourism industry in making knowledgeable choices about whether to spend money on VR technology for destination marketing.

Nejati and Afshar (2019) conducted a review of the literature on the application of VR technology in the travel industry. The review found several potential advantages of VR, including enhancing the travel experience, raising client engagement and satisfaction, and boosting the competitiveness of travel destinations. The review did point out that there are still important issues that need to be resolved, like the price of putting VR technology into use and the requirement for standardized guidelines for its application. The review also made the case that more investigation is necessary to examine the long-term impacts of VR on tourism and to create efficient training programs for tourism professionals to use VR technology. Ultimately, cooperation between technology developers, tourism businesses,

and policymakers will be necessary for the successful integration of VR into the tourism industry.

A research agenda for examining the use of virtual reality, augmented reality, and mixed reality in tourism was put forth by Jung and Tom Dieck (2017). The research agenda covered subjects like figuring out how virtual reality affects consumer behaviour, examining the function of social media in promoting virtual reality experiences, and investigating how virtual reality might improve the sustainability of tourist destinations. The authors also emphasized the importance of interdisciplinary research partnerships for fully comprehending the effects of VR on the tourism industry.

Smart tourism destinations, which refer to the use of technology to customize the tourist experience for visitors, were studied by Xiang and Tussyadiah in 2015. The authors made the case that virtual reality (VR) technology can be crucial in developing customized tourism experiences, such as enabling customers to virtually visit locations before making travel plans. The study emphasized the significance of comprehending consumer preferences and behaviors in order to use VR technology to its full potential in developing personalized experiences. The authors also asserted that VR technology can be utilized to replicate special experiences that are difficult to access in reality, thereby enhancing the overall tourism experience.

Zhou and Buhalis (2019) discussed the evolution of tourist destinations in the context of smart tourism. This strategy may also help attract a wider range of customers who may have physical limitations or financial constraints. The use of VR technology, according to the authors, can help the growth of smart tourist destinations by giving visitors fresh and creative experiences. The need for infrastructure development, privacy and security issues, and the potential for technology to exacerbate already-existing social and economic inequalities are just a few of the significant issues that need to be addressed, they added. The use of VR technology in tourist attractions can give visitors a more customized and interactive experience, but it's crucial to make sure that the advantages are available to everyone and don't further marginalize any groups. Stakeholders must also take into account the ethical implications of using VR technology, particularly in light of data privacy concerns and the risk of technology addiction or overuse. There are a number of potential advantages to using VR technology in the hospitality and tourism industries, including improving the travel experience and raising customer engagement and satisfaction. The

research also identifies important obstacles and constraints, such as the price of putting VR technology into use and the demand for standardized guidelines for its application. Interdisciplinary collaborations will be necessary to address the complex issues involved, and more research is required to fully understand the implications of VR for the industry. Additionally, it is important to carefully consider and address any potential ethical issues with the use of VR in specific fields like healthcare and education. To ensure that VR technology is used responsibly and ethically, policymakers and stakeholders must collaborate.

3.3 Previous Research on Customer Satisfaction and Sales in Restaurant Industry

Sales and customer satisfaction are essential for success in the restaurant business. The literature review offers important insights into the use of virtual reality technology in the hospitality and tourist industries, which are used to assess and explain customer satisfaction and sales in the restaurant industry. In many industries, including hospitality and tourism, virtual reality has been found to be an effective strategy for enhancing customer experiences and increasing sales. According to studies, Virtual reality can be used to create immersive dining experiences, enabling customers to browse the menu and tour the establishment before making a reservation. Additionally, this technology can be used in the restaurant industry to train employees and increase operational effectiveness.

The use of virtual reality in tourism marketing was examined in the paper "Virtual Reality: A New Tool for Promotion" by Buhalis and Michopoulou (2001). The authors made the argument that virtual reality could give visitors a special and immersive experience and increase their level of satisfaction with the area. Virtual reality could be used to help customers envision and experience their location before they travel, aiding in pre-trip planning and decision-making. According to the study, virtual reality could be a useful tool for increasing clientele happiness and revenue in the restaurant industry by offering a distinctive and immersive dining experience. Before implementing new menus and layouts in their physical locations, technology could assist restaurant owners in designing and testing them, possibly cutting costs and increasing efficiency. In a simulated setting, virtual reality could also be used to educate staff in customer service and food preparation methods.

The potential of virtual reality for enhancing tourism encounters was also covered in the 2009 article "Virtual reality and tourism: Where do we stand?" by Jung, Tom Dieck, and Lee. The study looked at how virtual reality is used in a number of tourism-related industries,

including location marketing, adventure tourism, and cultural tourism. The researchers realized that virtual reality could improve tourists' emotional experiences while traveling and raise their level of satisfaction with the location. Virtual reality could be applied to the restaurant industry to produce an original, immersive dining experience that boosts customer satisfaction and boosts sales. Customers could, for example, take a virtual tour of the restaurant's origins and history or even explore the kitchen virtually to see how their food is made. This would produce a memorable experience that distinguishes the eatery from rivals and promotes return trips.

The use of virtual reality in tourism experiences was investigated in the research "Using virtual reality to enhance tourism experiences" by Huang, Backman, and Backman (2016). According to the authors, virtual reality can offer a distinctive and immersive experience that improves customer satisfaction and boosts revenue. Virtual reality could also be used to evaluate and design products, giving customers a chance to see and use them before making a purchase. Virtual reality could be used in the restaurant business to give customers a virtual tour of the establishment so they can picture the dining area and menu before they visit. This might boost their opinion of the eatery and enhance sales. Virtual reality could also be used to teach restaurant staff in a simulated setting. This would let them hone their abilities and provide better customer service without having to worry about making errors in a real-world situation. This might result in training programs for restaurant personnel that are more effective and efficient.

Wang, Wang, and Li (2020) conducted another study on the topic titled "The use of virtual reality for destination marketing: A research review and agenda." The authors realized that virtual reality could be a useful instrument for developing strong emotional bonds with clients and raising their level of satisfaction with the location. Customers could experience the history and culture of the location through the use of virtual reality in storytelling. Virtual reality could be used in the context of the restaurant industry to tell the story of the restaurant, its history, and culture, improving client happiness and boosting sales. Customers could enjoy a distinctive and immersive dining experience by watching virtual reality demonstrations of the ingredients and culinary methods used in the restaurant's dishes. Virtual reality could also be used to give potential customers a sneak peek of the atmosphere and decor of the eatery before they visit, assisting them in making decisions about what to eat.

The research reports and white papers from technology companies that specialize in virtual reality for travel and tourism, such as "Virtual Reality in Travel and Tourism: Thematic Research" by GlobalData (2019), "Virtual Reality in Hospitality: Use Cases and Best Practices" by Kaul and Joshi (2018), and "The Business of Virtual Reality: How VR is Changing the Game for the Hospitality Industry" by Adnan (2017), offer insightful information on the application of virtual reality in the hospitality industry. According to these sources, virtual reality can improve client satisfaction and boost sales by offering distinctive and immersive experiences, forging emotional bonds with clients, and improving manufacturing and testing. There are additional studies and resources that can help assess and explain customer satisfaction and sales in the restaurant industry in addition to the ones already mentioned. For instance:

Tasci and Kozak's 2006 study, "The Relationship Between Service Quality, Customer Satisfaction, and Behavioural Intention: The Case of Restaurants in Istanbul," - In this research, the restaurant industry in Istanbul, Turkey, is examined in relation to service quality, client satisfaction, and behavioural intention. Customer satisfaction acts as a mediator in the relationship between service quality and behavioural intention, the researchers discovered, with service quality having a substantial impact on both behavioural intention and customer satisfaction. The research also discovered that the most crucial element in determining the level of service quality in restaurants is tangibles, such as physical facilities and equipment.

In another study entitled "The Effects of Menu Information on Customer Satisfaction, Menu Evaluations, and Willingness to Return in Casual Dining Restaurants" by Oh, Fiore, and Jeoung (2007), their research looks into how menu information affects patron satisfaction and likelihood to return in American casual dining establishments. The researchers discovered that menu information has a favourable effect on both customer satisfaction and willingness to return. The research discovered that the most crucial elements in deciding menu satisfaction are information about ingredients, preparation techniques, and nutritional value.

The Chinese Restaurant Industry: The Impact of Service Quality on Customer Satisfaction, Loyalty, and Retention by Yang and Liu (2017) This research looks at how customer satisfaction, loyalty, and retention are affected by service quality in the Chinese restaurant industry. The researchers discovered that customer happiness is greatly influenced

by service quality, which in turn has a favourable effect on loyalty and retention. The research also discovered that the most crucial aspects of service quality in the Chinese restaurant industry are responsiveness, dependability, and empathy.

According to Kim and Moon's study, "Exploring the Relationship Between Restaurant Atmospheres and Customer Loyalty: The Role of Emotions and Overall Satisfaction," (2009) This research looks into the connection between restaurant ambiance, clientele feelings, general satisfaction, and loyalty in the US. The researchers discovered that a restaurant's ambiance significantly affects patrons' feelings, overall satisfaction, and loyalty. The research discovered that the most crucial elements in determining emotional reactions to restaurant atmospherics are music, lighting, and decor.

The literature review concludes by arguing that virtual reality technology can be a useful tool for raising client happiness and revenue in the restaurant industry. Virtual reality can offer a distinctive and immersive eating experience, strengthen the emotional bond with customers, enable customers to picture and experience the restaurant before visiting, and convey the restaurant's narrative and cultural background. Younger groups, who are more likely to seek out inventive and distinctive dining experiences, may also be drawn to restaurants that use virtual reality technology. To make sure that the technology fits with their company image and target market, restaurants should carefully evaluate the costs and benefits.

3.4 Conceptual Framework and Hypotheses

The development of the theoretical framework will be further explained in the paragraphs that follow. The findings of the Service Quality (SERVQUAL) model are added to this framework, which is based on the fundamental principles of The Technology Acceptance Model (TAM). It provides the fundamental framework for the additional statistical procedures that will be used to address the research questions and produce actionable advice.

Owners and managers can choose wisely how to enhance customer satisfaction and increase sales. The TAM can be used to assess customers' perceptions of the technology's utility and usability in the context of virtual reality and other digital experiences. Restaurant owners and managers can learn a great deal about customer behaviour and preferences by taking this theoretical framework into account and conducting research in this area. They can then use this information to make data-driven decisions about how to enhance the overall customer experience. The success of the restaurant industry can ultimately be attributed to

an increase in customer satisfaction, loyalty, and sales as a result of this. A theoretical framework that has been extensively employed in research to comprehend users' adoption and use of new technologies is the Technology Acceptance Model (TAM). Fred Davis created the model in the 1980s, and it has since grown to be one of the most widely used models for researching technology acceptance.

3.4.1 TAM Model

In order to understand how people use computers, Davis (1986) first created the TAM model. The theory of reasoned action (TRA) by Fishbein and Ajzen (1975), which explains a person's behaviour based on their intentions, is where the model was derived. TAM specifically aimed to explain the determinants of computer acceptance, which could be generalized to different end-user computing technologies and populations (Davis et al., 1989). This model includes two constructs that were derived from TRA's attitude construct: perceived usefulness (PU) and perceived ease of use (EU). The model explains that a person's attitudes toward technology, which are influenced by their perceptions of PU and EU, have an impact on their intentions to use technology. PU stands for the degree to which a person thinks utilizing a specific technology will improve their ability to perform their job, which could result in both monetary and non-monetary benefits in an organizational setting. On the other hand, perceived EU describes the extent to which a person thinks using a specific technology will involve little effort.

The TAM model has been updated and modified to fit the circumstances surrounding the technology under study. One important change is the inclusion of social influence processes in anticipating how users will use a new technology (Venkatesh and Davis, 2000). For social media platforms, where social influence governs voluntary usage behaviour, this revision is especially crucial. The voluntary usage behaviour of social media sites by end users is thus explained by prior studies of TAM models. This model is an excellent resource for comprehending the factors that influence computer acceptance and usage. Perceived usefulness and perceived ease of use, two constructs in the model, have been widely used to forecast people's intentions and actions regarding technology adoption. Additionally, the model's adaptability to various contexts and technologies makes it a useful tool for researchers and practitioners looking to understand the factors that influence technology acceptance and usage.

Perceived usefulness (PU), in accordance with the Technology Acceptance Model (TAM), is a crucial element influencing user behaviour with regard to technology adoption. PU can be defined as the degree to which VR technology is seen by sales professionals as helpful in achieving their sales goals in the context of using VR to increase sales. The degree of effortlessness a potential user associates with using an IT system is known as perceived ease of use (Thong et al., 2002). The degree to which a potential IT user believes that using the system will help them perform better at their job is known as perceived usefulness, on the other hand (Thong et al., 2002). According to TAM, perceived usefulness has a direct and favourable impact on the user's perceived intention to use the system, while perceived ease of use has a favourable direct and indirect impact on a user's propensity to adopt IT or perceived intention to use it. Perceived ease of use directly influences perceived usefulness, which in turn influences both directly and indirectly perceived intention to use (Thong et al., 2002).

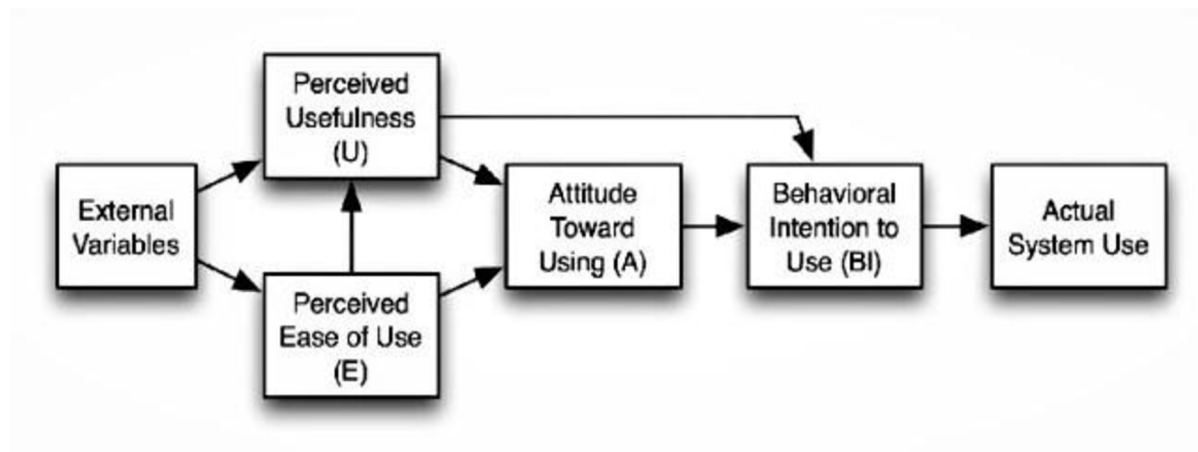


Figure 1: An illustration of the TAM model (Vesga et al, 2017)

VR can give potential customers a more immersive and interactive experience, letting them try out products or services in a way that isn't possible with other marketing methods. This can help increase customer engagement and ultimately lead to higher sales. Moreover, VR technology can also provide valuable data and insights into customer behaviour and preferences, allowing businesses to tailor their marketing strategies accordingly. This can lead to more effective and efficient marketing campaigns, resulting in increased revenue and growth.

Based on the TAM model, it can be hypothesized that if restaurant owners perceive VR technology as useful in achieving their sales goals, they are more likely to adopt and use it in their sales activities. This is because the perceived usefulness of VR will lead to a

positive attitude towards the technology, which in turn will lead to a greater intention to use it. Additionally, gathering feedback from customers about their experiences with VR technology can help restaurant owners improve its usefulness and increase its adoption rate. The TAM has been used in a wide range of research studies, including ones about how people adopt and use technologies like mobile phones, social media, and online shopping. For example, a study by Venkatesh and Davis (2000) used the TAM to examine users' acceptance of e-commerce websites. The researchers found that users' perceptions of the usefulness and ease of use of the websites were key factors in their intention to use the websites for online purchases. The study also found that perceived ease of use had a stronger impact on users' intention to use e-commerce websites than perceived usefulness. These findings suggest that website designers should prioritize making their websites easy to use in order to increase user acceptance and adoption.

Liu and Liang (2011) used the TAM to look at how different things affect the use of mobile payments in China. The researchers found that users' perceptions of the usefulness and ease of use of mobile payment technologies were important factors in their intention to use them. The TAM has also been used in studies on the adoption and use of new technologies in the workplace. For example, Agarwal and Karahanna (2000) used the TAM to look at how organizations adopt new information systems. The researchers found that users' perceptions of the usefulness and ease of use of the systems were key factors in their intention to use them. The TAM has also been applied in various fields, including healthcare, education, and e-commerce, to understand user behaviour and acceptance of technology. The model has proven to be a useful framework for designing and evaluating new technologies.

3.4.2 Service Quality (SERVQUAL) Model

A popular theoretical framework for evaluating service quality is the SERVQUAL model. Reliability, assurance, tangibles, empathy, and responsiveness are the five dimensions used in this multi-dimensional model to measure service quality. Businesses frequently use this model to pinpoint areas where they can raise customer satisfaction and improve the quality of their services. Businesses can better understand how customers view their services and implement necessary improvements by measuring these five dimensions. These dimensions are thought to represent the consumer's mental checklist of service quality. This model is a widely accepted framework for evaluating service quality, and it has been widely applied

across various industries to determine the discrepancy between client expectations and actual service delivery perceptions. Businesses can improve their overall service quality and pinpoint areas for improvement by looking at these dimensions.

The SERVQUAL model was used in the study to assess how VR affected the concrete aspect of service quality. The physical components of the service, such as the tools and settings, are referred to as the “tangible dimension of service quality.” Researchers were able to evaluate how VR technology impacts these observable aspects of service quality by using the SERVQUAL model. This model is also used in the study as a tool to gather information on customers' perceptions and expectations of service quality in the restaurant for those who use virtual reality technology versus those who do not. To ascertain whether the use of virtual reality technology significantly affects customers' perceptions of service quality based on the five SERVQUAL model dimensions, data from the questionnaire is analysed.

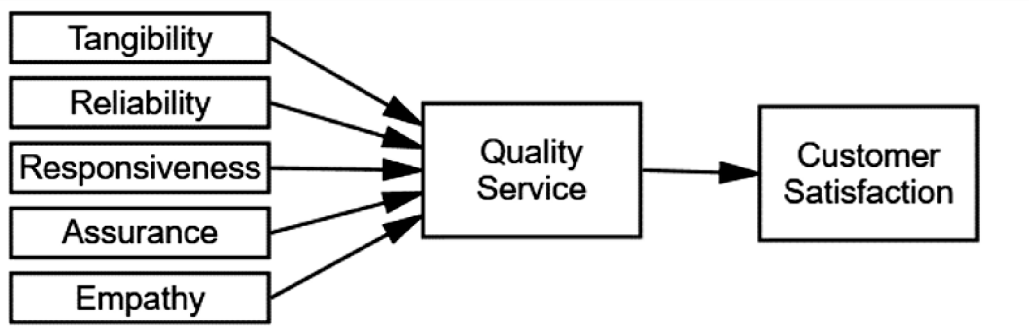


Figure 2: An illustration of the SERVQUAL Model (Nautwima & Asa, 2022)

4 Practical Part

4.1 Restatement of Research Questions and Hypotheses

The research questions were in this study are:

Quantitative Research Questions

- 1) Does using virtual reality (VR) have any effect on increasing customers' satisfaction?
- 2) Is utilizing virtual reality (VR) more effective than non-virtual reality in increasing sales in the restaurant industry?

4.1.1 Hypotheses

- 1) Using virtual reality (VR) does not have any effect on increasing customers' satisfaction.

4.2 Study Design and Settings

The main objectives of this research are to investigate the effectiveness of virtual reality on increasing sales in the Restaurant Industry. Therefore, the design of the present study was based on a quantitative approach. A quantitative approach is the opposite of qualitative research, which involves collecting and analysing non-numerical data (Creswell, 2014). Therefore, according to the types of research questions and the objectives of this study, a quantitative approach was selected to obtain a comprehensive and precise result on the effectiveness of virtual reality on increasing sales in the restaurant industry. This study aimed to investigate the effects of using virtual reality (VR) technology in the restaurant industry on customer satisfaction and interest in the restaurant. The study was conducted at a local restaurant in Kiel, Germany, where participants were recruited from the surrounding community. The sample consisted of 34 participants who were randomly assigned to two groups. There are several options for obtaining statistical data when performing research. The statistical or numerical analysis of data employs the quantitative method, which emphasizes exact measurements (cf. Rutberg & Bouikidis, 2018). It entails large sample sizes that help to discover statistical implications. The goal of quantitative research, according to Rutberg & Bouikidis (2018), is to pinpoint a causal impact and provide insights into the meaning and experience of people's lives and social settings. With respect to the project's goal is to involve 34 participants from various age groups, a survey, as a quantitative approach, appears to be the most suitable format for a primary data source. The implementation of the survey is of

utmost scientific relevance, as it directly addresses the problems identified in the previous sections. The study employed a quasi-experimental design, with one group receiving a virtual reality tour of the city and restaurant and the second group receiving no VR. The study employed a quasi-experimental design, with one group receiving a virtual reality tour of the city and restaurant and the second group receiving no VR.

4.3 Sampling Procedure and Participant Characteristics

Participants were chosen through convenience sampling. A total of 34 participants from a single casual dining restaurant located in the Kiel, Germany was recruited. The name of the restaurant is Stule. The participants were randomly assigned to two groups.

4.4 Instrumentations

4.4.1 Self-reported Survey:

It consisted of 20 Likert-scale questions was used. The survey asked participants to rate their perceptions of various aspects of their dining experience with VR, such as their prediction about VR in the restaurant industry, their expectations, the quality of the food, the ambiance of the restaurant, and the overall satisfaction with their visit. The survey was designed to assess the different dimensions of customer satisfaction, including expectations, perceptions, and overall satisfaction. Two questions of the survey are related to demographic information of the respondents and one question was closed answer Yes/No which the respondents have to answer them with Yes/No.

4.5 Data Collection Procedures

In this section, the researcher provides a detailed description of the data collection procedures that used to gather the necessary information for the present study. The researcher collected data through both surveys and receipts. The surveys were self-reported and consisted of 17 Likert-scale questions designed to measure customers' satisfaction. The questions asked participants to rate their perceptions of various aspects of their dining experience, such as the quality of the food, the ambiance of the restaurant, and their overall satisfaction with their visit. The researcher also notes that the surveys were distributed to participants after they had completed their dining experience. To measure sales, the researcher collected the participants' receipts from their dining experience. This allowed the researcher to compare the sales data between the two groups and determine if there was a significant difference in sales as a result of the virtual reality tour.

The researcher also notes that the restaurant staff collected the receipts from both groups, and that the data was anonymized to protect the participants' privacy. In addition to the surveys and receipts, the researcher also collected demographic information on the participants through a pre-survey questionnaire (**See Result Section**). The questionnaire asked for information such as the participants' age, gender. The researcher notes that this information was used to help characterize the sample and to identify any potential biases or confounding factors that could affect the study results. Overall, the data collection procedures were designed to gather a comprehensive set of information on the participants' dining experiences, including their satisfaction levels and purchasing behaviour. By using a combination of surveys, receipts, and demographic data, the researcher was able to obtain a robust dataset that she could use to test hypotheses and draw conclusions about the effectiveness of virtual reality technology in the restaurant industry. Here are some phrases from summaries regarding data collection procedures:

Stage (1): "Data for this study was collected through both survey and receipt analysis."

Stage (2): "All participants were taught by operator how to use virtual reality devices."

Stage (3): "The VR group used virtual reality glasses twice during the process. Once before ordering a drink and a second time before ordering the main course."

Stage (4): "The survey was administered immediately after the participant's meal was finished."

Stage (5): "To measure sales, the participants' receipts from their dining experience were collected by the restaurant staff."

Stage (6): "The collected data was entered into a spreadsheet for analysis."

Data collection procedures are critical in research as they determine the quality and reliability of data collected. In this section, we will discuss in detail the data collection procedures used by the researcher in this study on the impact of virtual reality on customer satisfaction and sales in the restaurant industry.

For the survey data collection, the researcher used a self-reported survey consisting of 17 Likert-scale questions. The survey was administered to participants immediately after they completed their dining experience. The Likert scale used ranged from 1 to 5, with 1 representing "*strongly disagree*" and 5 representing "*strongly agree*." The questions were designed to assess various aspects of the participants' dining experience, such as the quality of the food, the ambiance of the restaurant, and their overall satisfaction with the visit. To

collect sales data, the researcher worked with the restaurant staff to collect participants' receipts from their dining experience. This allowed this study to compare the sales data between the two groups and determine if there was a significant difference in sales as a result of the virtual reality tour. In addition to the data collection procedures, the researcher also took several steps to ensure the privacy of the participants. the researcher obtained informed consent from all participants before collecting any data, and she ensured that all data was kept confidential and anonymous. She also used secure storage methods to protect the data from unauthorized access.

In conclusion, the data collection procedures used by the researcher in the study on the impact of virtual reality on customer satisfaction and sales in the restaurant industry were carefully planned and implemented to ensure the accuracy, reliability, and confidentiality of the data collected.

4.6 Variables and measures

In this section, the researcher provided a detailed overview of the variables and measures used in the study on the effects of virtual reality technology on customer satisfaction and sales in the restaurant industry.

4.6.1 Independent Variable

The independent variable in this study is the virtual reality tour of the winery and restaurant. This variable was manipulated by providing the treatment group with a virtual reality tour of the restaurant before their drink and meal, while the non-virtual reality group did not receive this treatment (instruction).

4.6.2 Dependent Variables

The two dependent variables in this study are customer satisfaction and sales.

4.6.2.1 Customer Satisfaction

To measure customer satisfaction, the researcher used a self-reported survey consisting of 17 Likert-scale questions, which asked participants to rate their perceptions of various aspects of their dining experience, such as the quality of the food, the ambiance of the restaurant, and the overall satisfaction with their visit.

4.6.2.2 Sales

To measure sales, the researcher used the participants' receipts from their dining experience, which were collected by the restaurant staff. The researcher notes that this allowed the researcher to compare the sales data between the two groups and determine if there was a significant difference in sales as a result of the virtual reality tour.

4.6.2.3 Moderating Variable

The moderating variables are the participants' age and gender in this study. The researcher notes that previous research has suggested that age can have an impact on the effectiveness of virtual reality technology in enhancing customer satisfaction and increasing sales. As such, age and gender were included as a moderating variable in this study.

4.6.2.4 Measurement Scales

4.6.2.4.1 Likert-scale

The Likert-scale is a common measurement scale used in social science research to measure attitudes and opinions. It involves a series of statements or questions, to which participants are asked to respond using a range of options (e.g., *strongly agree*, *agree*, *neutral*, *disagree*, *strongly disagree*). In this study, the Likert-scale was used to measure customer satisfaction.

4.6.2.4.2 Sales Data

Sales data is a measurement scale that involves the collection of data on the amount of money spent by customers during their dining experience. In this study, sales data was used to measure sales and compare the total amount spent by the two groups.

4.7 Conclusion

In conclusion, the variables and measures used in this study were carefully chosen to provide insight into the effectiveness of virtual reality technology in enhancing customer satisfaction and increasing sales in the restaurant industry. By using a combination of self-reported surveys, sales data, and demographic variables, the researcher was able to provide a comprehensive analysis of the impact of virtual reality technology on the restaurant industry.

5 Discussion of Results and Recommendations

This study is an attempt to explore the effect of utilizing virtual reality on increasing sales in the Restaurant Industry. To achieve this goal, the following research questions were posed:

- 1) Does using virtual reality (VR) have any effect on increasing customers' satisfaction?
- 2) Is utilizing virtual reality (VR) more effective than non-virtual reality in increasing sales in the restaurant industry?

5.1 Descriptive statistics for Demographic Information

This section presents a descriptive analysis of the respondents with Virtual Reality Group and the respondents with Non-Virtual Reality group. The following Tables and figures report the characteristics of the respondents in this study.

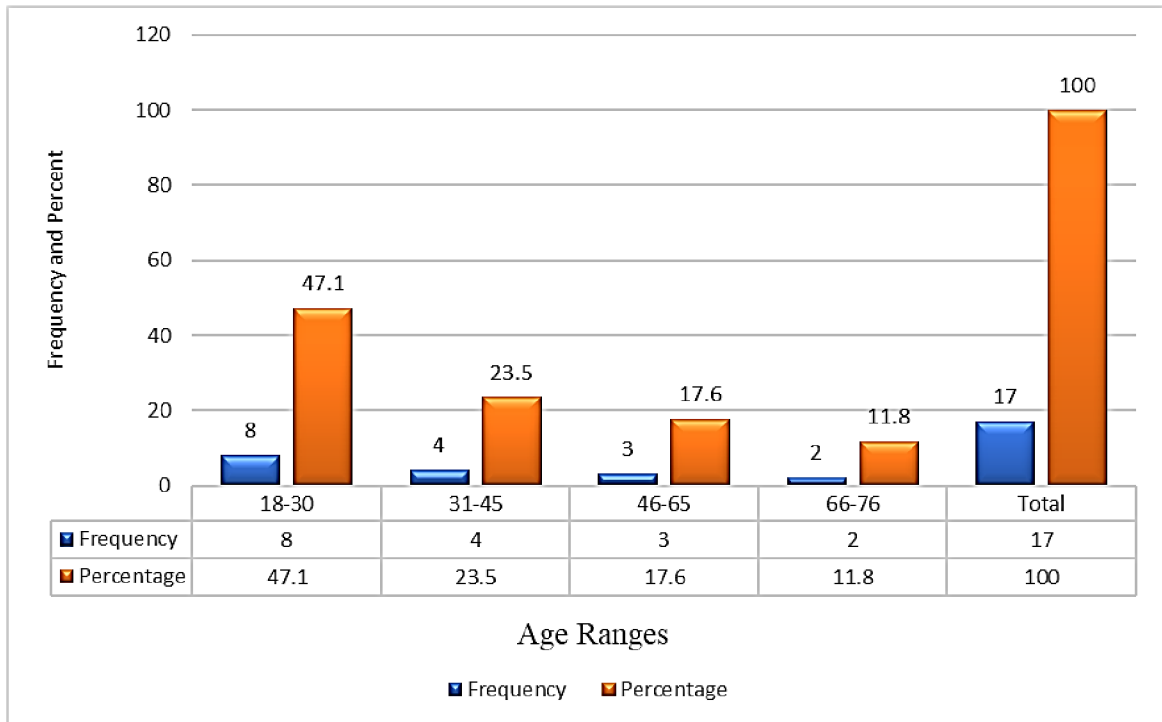
5.1.1 Group (A): Descriptive statistics for Virtual Reality Group

Table 5.1: Age variable (Virtual Reality Group)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-30	8	47.1	47.1	47.1
31-45	4	23.5	23.5	70.6
46-65	3	17.6	17.6	88.2
66-76	2	11.8	11.8	100.0
Total	17	100.0	100.0	

According to Table 5.1, 47.1% of the respondents that belong to the virtual reality group have an age range that falls between 18 and 30 years old. This indicates that the majority of the participants in the virtual reality group for this study are between the ages of 18 and 30, with the smallest proportion of participants belonging to the age group of 66-76 years (11.8%).

Figure 5.1: Age variable (Virtual Reality Group)



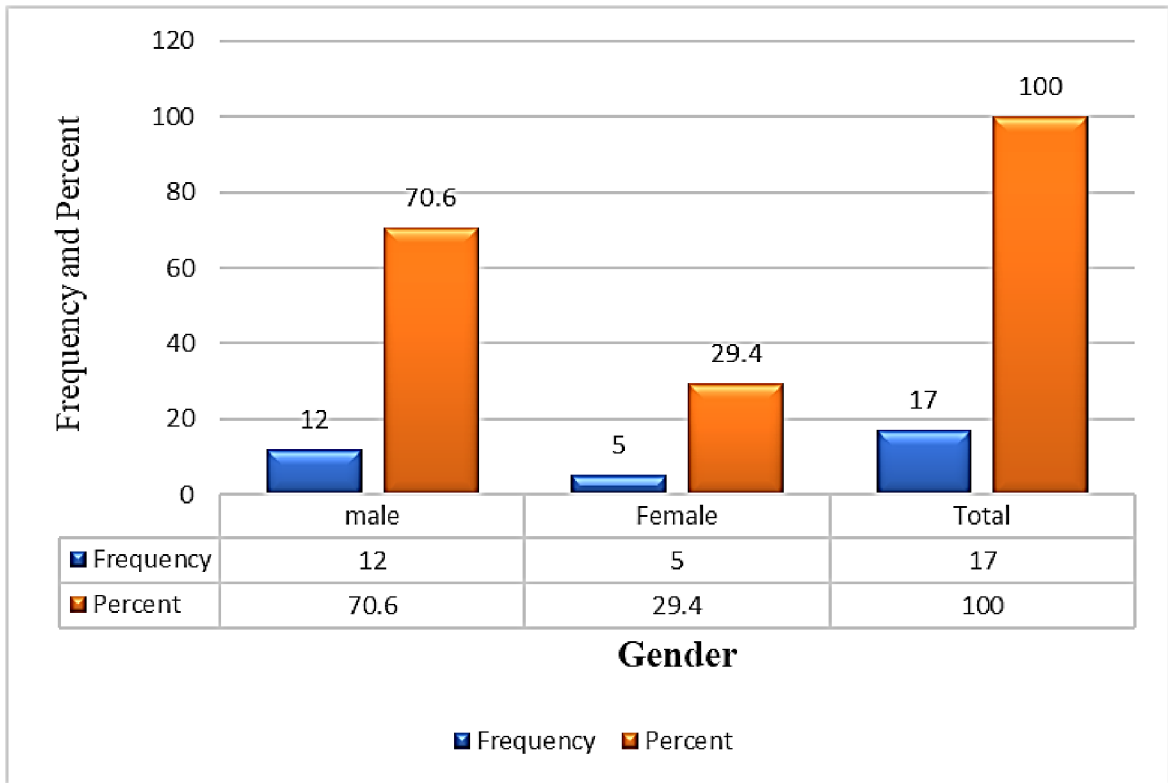
As figure 5.1 shows, in the Virtual reality group, the 47.1% of respondents are the ages between 18 and 30. That is to say, the ages between 18 and 30 made up the virtual reality group of this study, while the lowest percentage of the age group is between the ages of 66-76. The percent of these ages are 11.8 percent.

Table 5.2: Gender Variable (Virtual Reality Group)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	12	70.6	70.6	70.6
	Female	5	29.4	29.4	100.0
	Total	17	100.0	100.0	

Table 5.2 shows gender variable. In this table, 70.6% of samples are male and 29.4% are female in virtual reality group.

Figure 5.2: Gender Variable (Virtual Reality Group)



The gender variable is presented in Figure 5.2, which shows that 70.6% of the samples in the virtual reality group are male, while 29.4% of the samples are female.

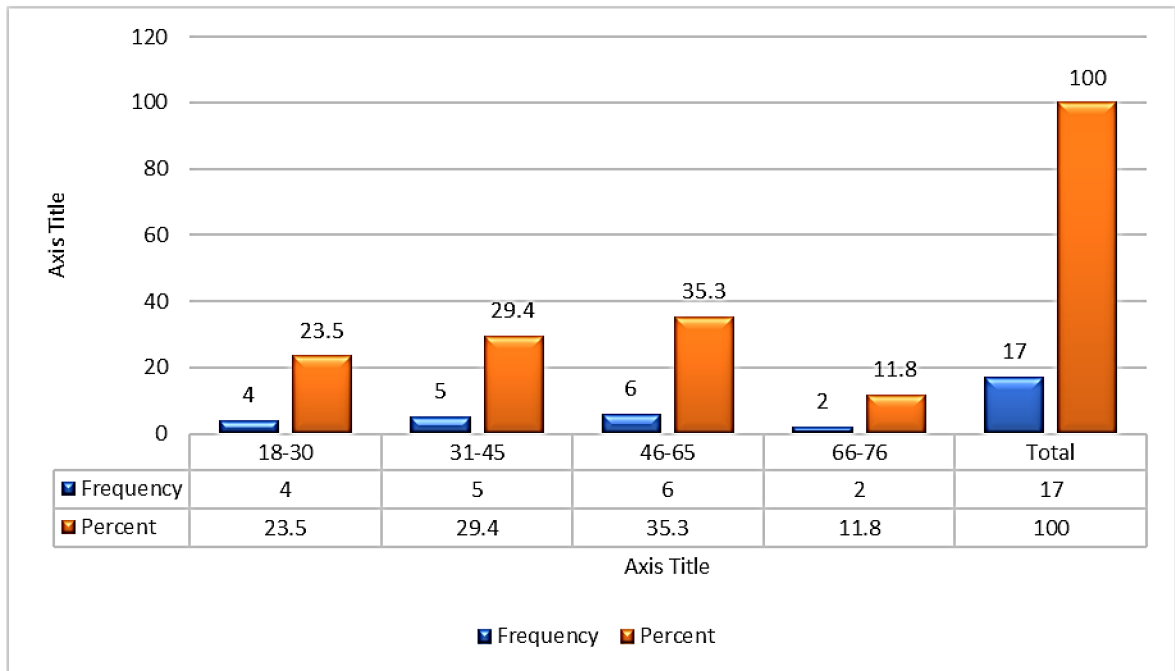
5.1.2 Group (B): Descriptive statistics for non-Virtual Reality Group

Table 5.3: Age variable (Non-Virtual Reality Group)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-30	4	23.5	23.5	23.5
31-45	5	29.4	29.4	52.9
46-65	6	35.3	35.3	88.2
66-76	2	11.8	11.8	100.0
Total	17	100.0	100.0	

35.3% of the participants in the non-virtual reality group are within the age range of 46-65 years, while 11.8% of the participants in this group correspond to the age range of 66-76 years in Table 5.3.

Figure 5.3: Age Variable (Non-Virtual Reality Group)



The figure 5.3 indicates that 35.3% of participants are the ages between 46-65 and 11% are the ages between 66-76 In the Non-virtual reality group.

Table 5.4: Gender variable (Non-Virtual Reality Group)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	10	58.8	58.8	58.8
female	7	41.2	41.2	100.0
Total	17	100.0	100.0	

As shown in Table 5.4, the 58.8% participants made up male in non-Virtual Reality group, while 41.2% participants are female.

Figure 5.4: Gender Variable (Non-Virtual Reality Group)

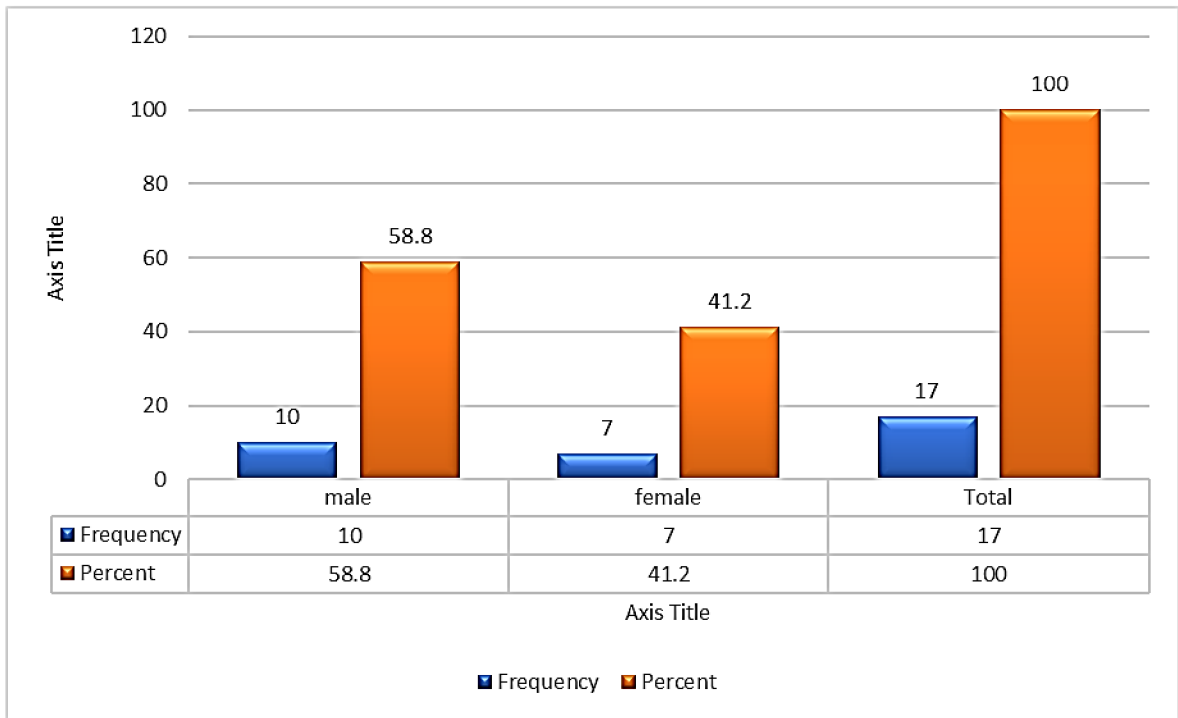


Figure 5.4 illustrates the gender distribution of the participants in the Non-Virtual Reality group, which consisted of 58.8% male participants and 41.2% female participants.

5.2 Inferential Statistics (Hypothesis Testing and Analysis)

Here, the researcher intended to answer the following research questions:

RQ₁: *Does using virtual reality (VR) have any effect on increasing customers' satisfaction?*

RQ₂: *Is utilizing virtual reality (VR) more effective than non-virtual reality in increasing sales in the restaurant industry?*

5.2.1 Part (A): Customers Survey (Virtual Reality VS Non-Virtual Reality)

The first research question focuses on contrasting the results of a customer survey conducted using virtual reality (VR) with one conducted using non-virtual reality (N-VR). In order to achieve this goal, we compared the mean scores that the participants in the virtual reality (VR) and the non-virtual reality (N-VR) conditions received.

The descriptive statistics are displayed in the following table 4.5, and table 4.6 provides an illustration of the t test findings.

Table 5.5: Descriptive statistics between Virtual Reality VS Non-Virtual Reality

	Group	N	Mean	Std. Deviation	Std. Error Mean
Customer Survey	Virtual Reality	17	3.7958	.78896	.19135
	Non-Virtual Reality	17	2.8235	.81349	.19730

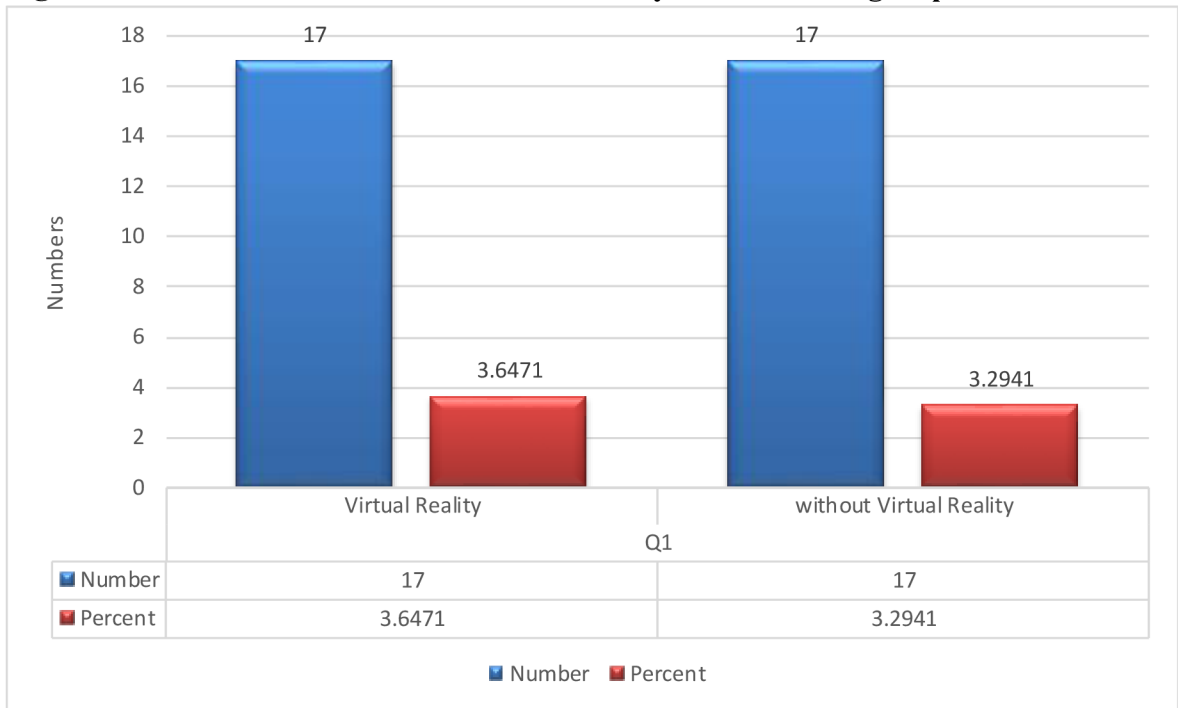
The mean score of the Virtual Reality group is 3.79, while the mean score of non-Virtual Reality group is 2.82. The Virtual Reality group shows a slightly better mean score than the non-Virtual Reality group. However, the two means should be compared to find out about the significance of their difference.

Table 5.6: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Survey Customer Equal variances assumed	.464	.501	3.538	32	.001	.97232	.27485	.41247	1.53217
Equal variances not assumed			3.538	31.970	.001	.97232	.27485	.41245	1.53219

Based on the Table 5.6, it appears that the researcher conducted an independent samples t-test to compare the means of two groups. The significance level was .001, which suggests that there is strong evidence to reject the null hypothesis that the means of the two groups are equal. Therefore, virtual reality (VR) has any effect on increasing customers' satisfaction.

Figure 5.5: the mean scores of customer’s surveys in Q1 in two groups



The difference in mean scores of customer surveys between the two groups regarding their dining-out behavior is depicted in figure 5.5. The question that is being compared is *"How often do you dine out?" (Behavioral).* According to the findings, the group that participated in Virtual Reality received a mean score of 3.64, which is superior to the group that did not participate in Virtual Reality, which received a mean score of 3.29. As a result, the Virtual Reality group displays a performance that is slightly superior to the others in this respect.

Figure 5.6: the mean scores of customer’s surveys in Q2 in two groups

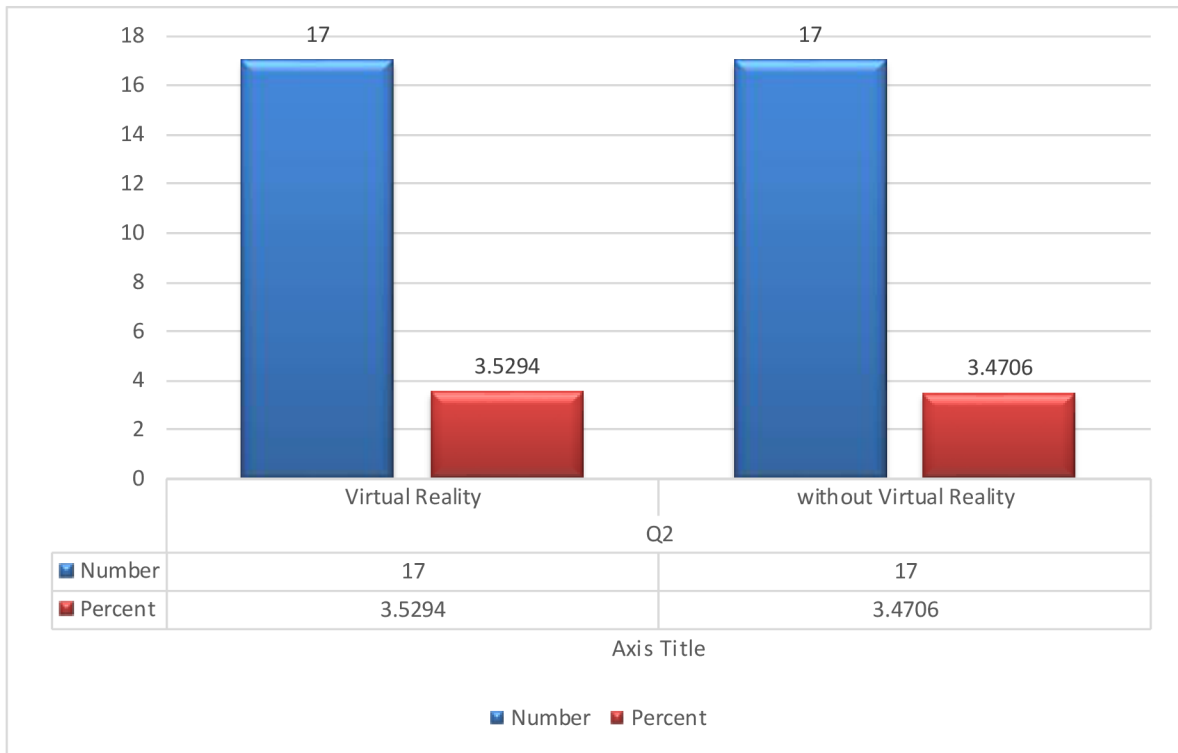
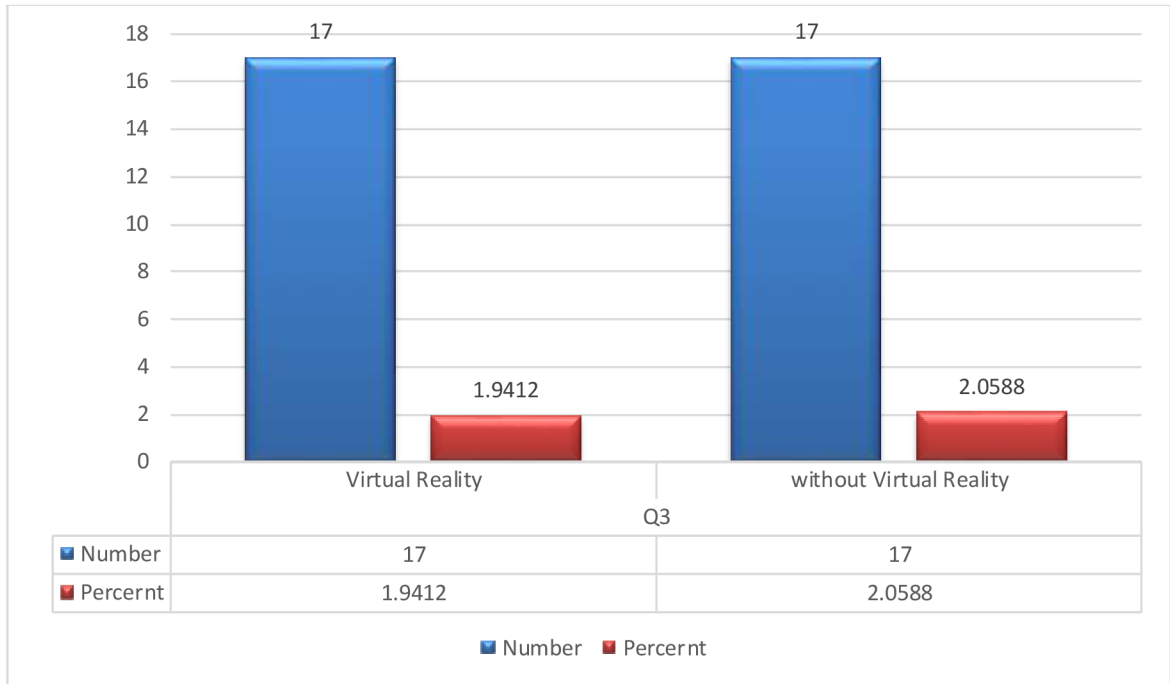


Figure 5.6 shows the findings of a survey done among customers about their opinions for question (2) “*How important is the restaurant's location and decor when you dine out? (Attitudinal)*”. The graph shows the variance in the two groups' mean scores for question #2, which asked respondents to rank the significance of restaurant location and ambiance when dining out. The mean score represents the overall average of all customer ratings for each group. The graph shows that the mean score for question (2) for the virtual reality group is 3.52 while it is 3.47 for the non-virtual reality group. This shows that, on average, the importance of restaurant location and decor was slightly higher for the Virtual Reality group than for the Without Virtual Reality group.

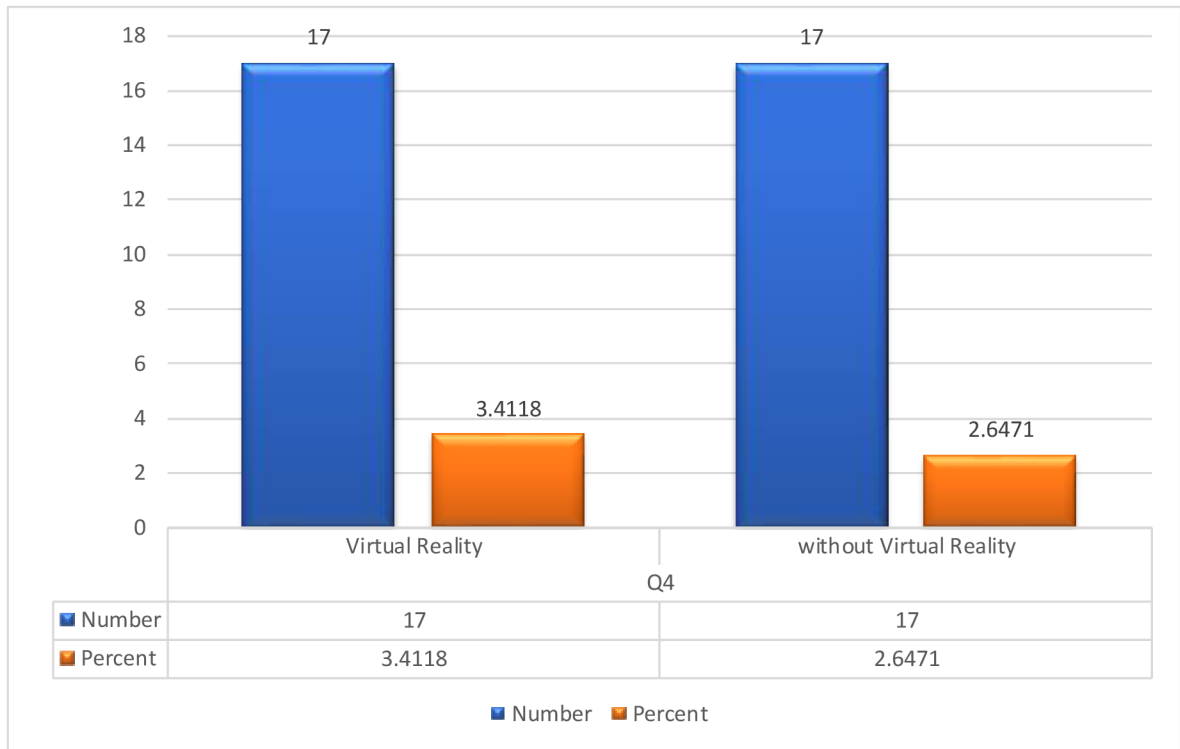
Overall, the graph suggests that the Virtual Reality group may have had a more positive attitude towards restaurant location and decor compared to the Without Virtual Reality group.

Figure 5.7: the mean scores of customer’s surveys in Q3 in two groups



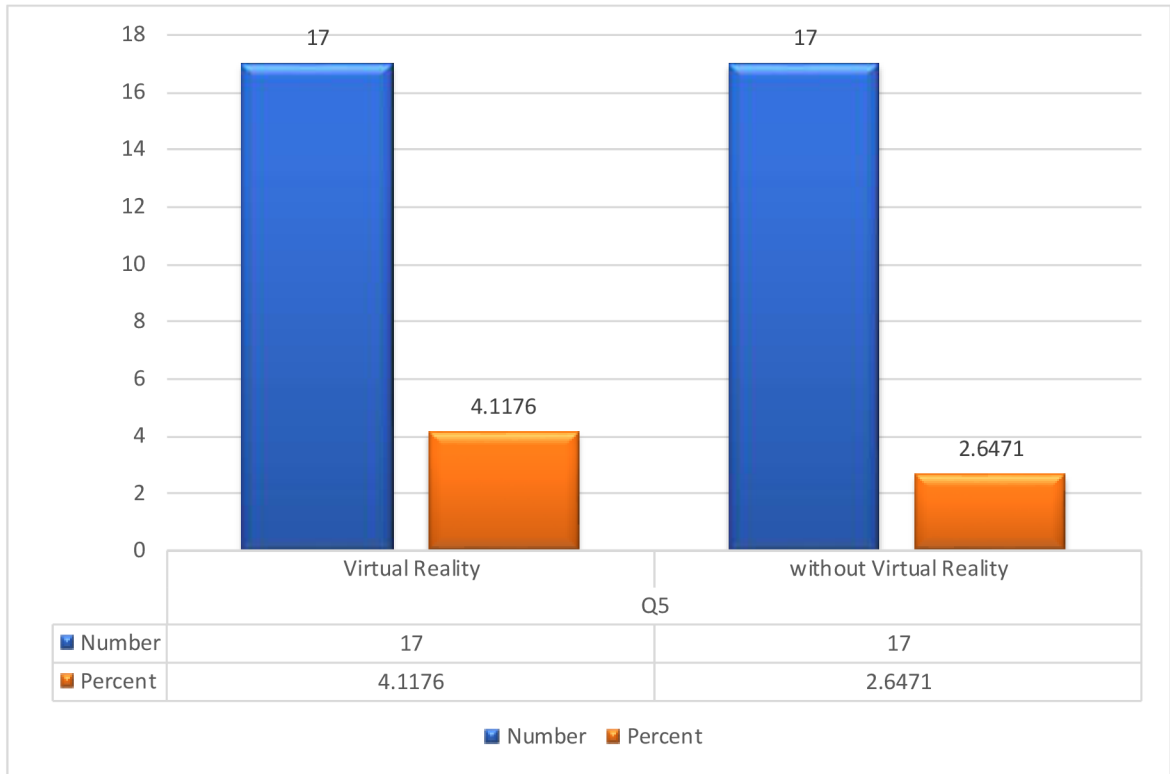
The figure 5.7 shows how the two groups' mean scores for the third question, "How often do you use virtual reality technology?" differed. (Behavioral)". The mean score represents the overall average of all customer ratings for each group. The graph shows that the average score for question (3) for the virtual reality group is 1.94, while the average score for the group without virtual reality is 2.05. This shows that, on average, slightly more people in the Without Virtual Reality group than in the Virtual Reality group reported using virtual reality technology. Overall, the graph suggests that those who do not use virtual reality technology are more likely to be familiar with it and use it more frequently than those who do.

Figure 5.8: the mean scores of customer’s surveys in Q4 in two groups



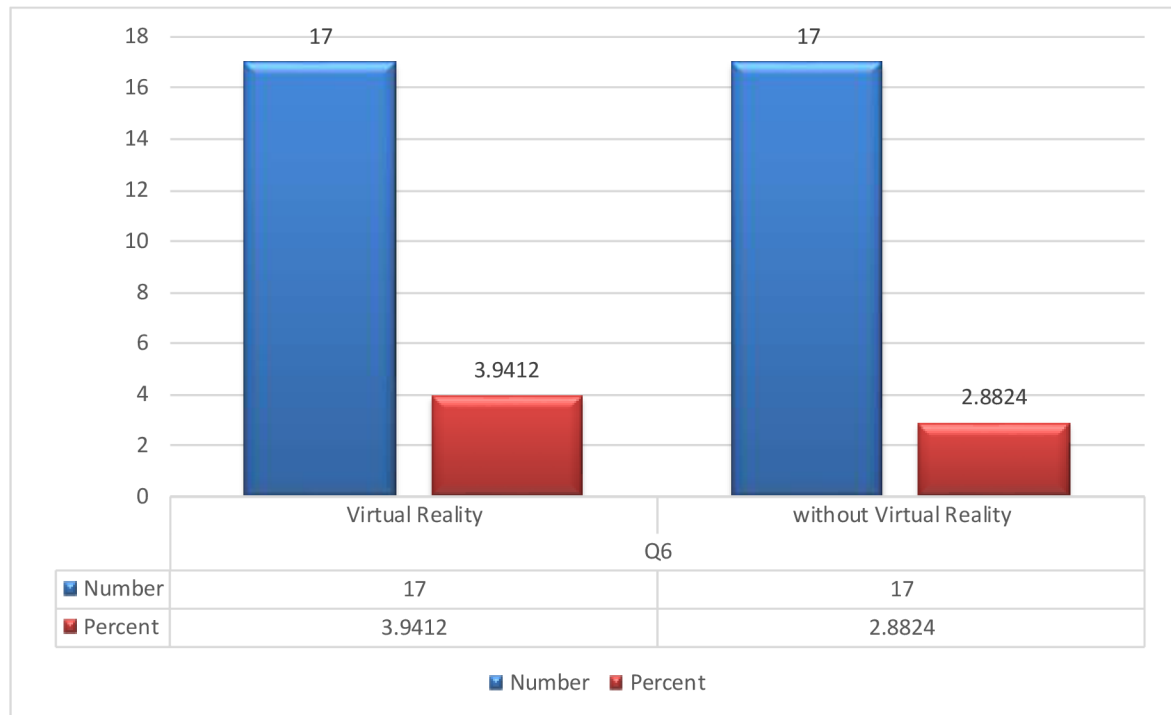
The survey asked question (4) “*Is it easy for you to learn to use virtual reality technology in the restaurant setting? (TAM: Perceived ease of use)*”. Each group's mean score was calculated and figure 5.8 shows the difference between the mean scores. The graph shows that the mean score for question (4) for the Virtual Reality group is 3.41 while the mean score for the Without Virtual Reality group is 2.64. This suggests that customers in the Virtual Reality group found using virtual reality technology in a restaurant setting to be simpler than the non-virtual reality group. The difference between the two groups is moderately large, with a difference of 0.77 points in their mean scores.

Figure 5.9: the mean scores of customer’s surveys in Q5 in two groups



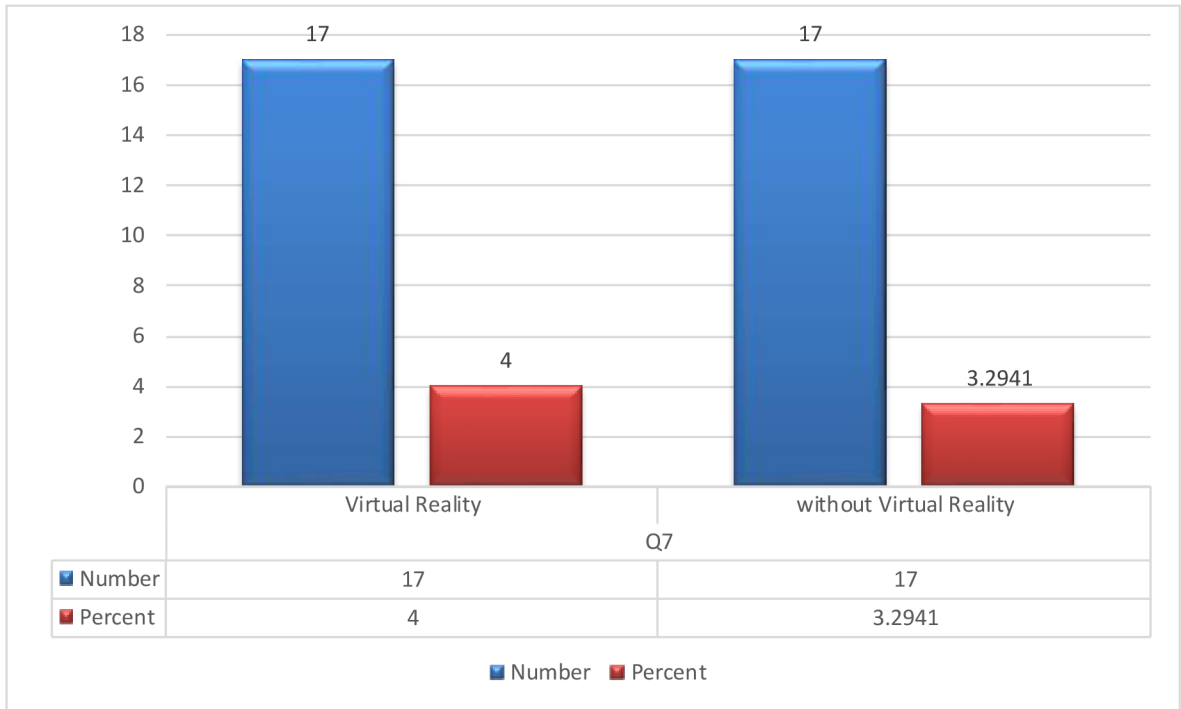
In figure 5.9, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (5) *“To what extent do you believe that virtual reality technology enhances your dining experience? (TAM: Perceived usefulness)”*. As we observed, in Q5, the mean score of the Virtual Reality group is 4.11, while the mean score is 2.64 in Without Virtual Reality group. The Virtual Reality group shows a better mean score than without Virtual Reality group. This suggests that customers in the Virtual Reality group strongly believe that virtual reality technology enhances their dining experience. The difference between the two groups is relatively large, with a difference of 1.47 points in their mean scores.

Figure 5.10: the mean scores of customer’s surveys in Q6 in two groups



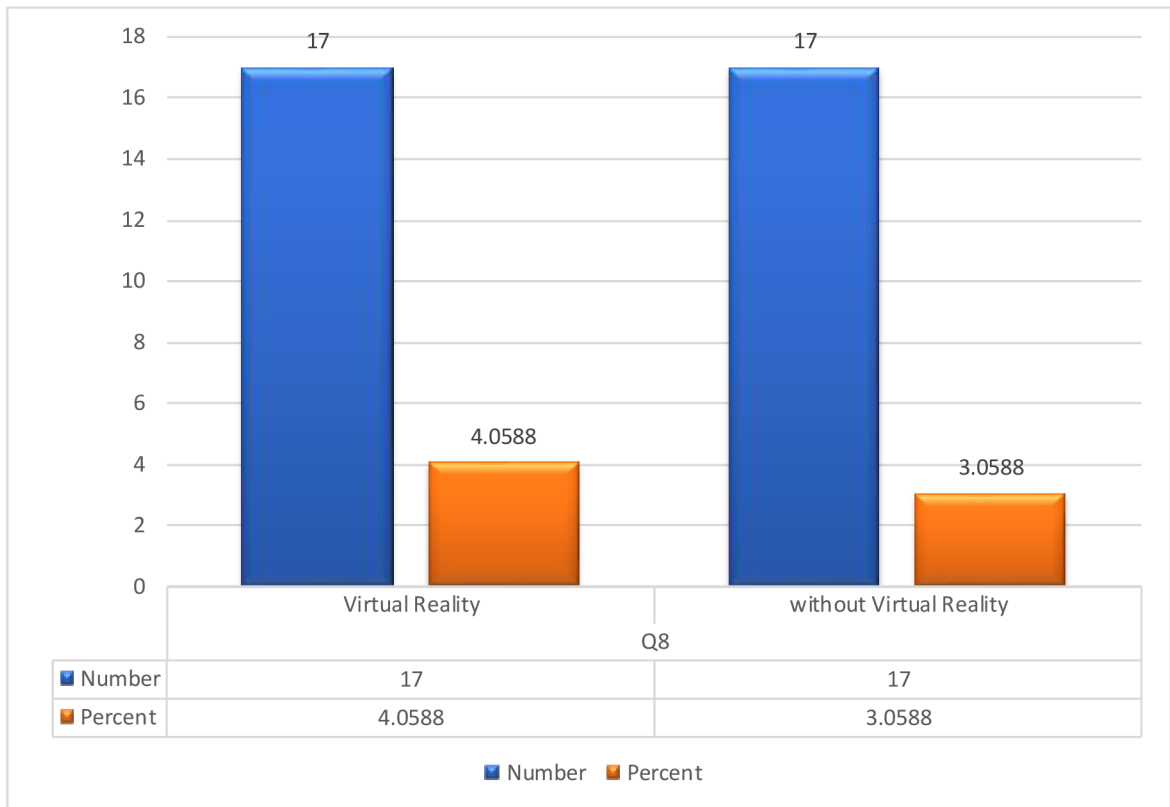
In figure 5.10, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (6) “*Do you think virtual reality technology will become a more common feature in restaurants in the future? (TAM: Attitude towards use)*”. As we observed, in Q6, the mean score of the Virtual Reality group is 3.94, while the mean score is 2.88 in Without Virtual Reality group. The Virtual Reality group shows a slightly better mean score than the Without Virtual Reality group. This suggests that customers in the Virtual Reality group are more likely to believe that virtual reality technology will become a common feature in restaurants in the future.

Figure 5.11: the mean scores of customer’s surveys in Q7 in two groups



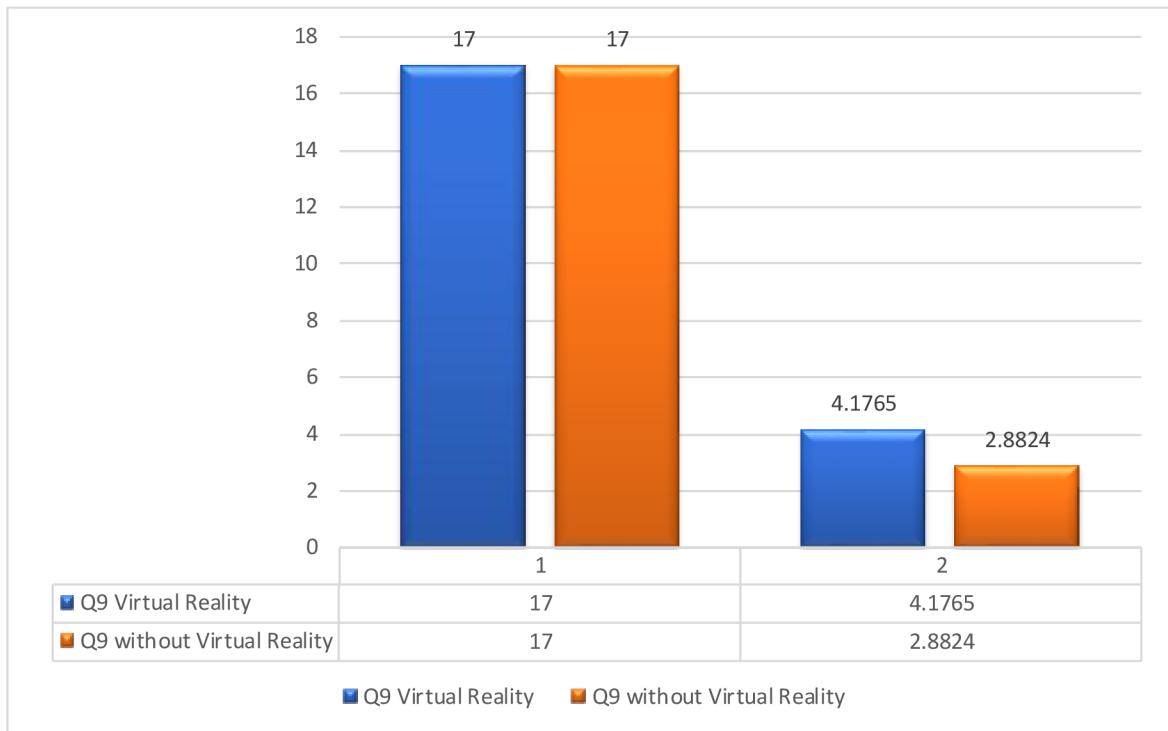
In figure 5.11, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (7) “How would you rate the quality of service provided by restaurant staff during your visit? (SERVQUAL: Responsiveness)”. As we observed, in Q7, the mean score of the Virtual Reality group is 4.00, while the mean score is 3.29 in Without Virtual Reality group. The Virtual Reality group shows a slightly better mean score than the Without Virtual Reality group. The result suggests that exposure to a virtual reality experience had a positive impact on patrons' opinions of the caliber of service provided by restaurant staff.

Figure 5.12: the mean scores of customer’s surveys in Q8 in two groups



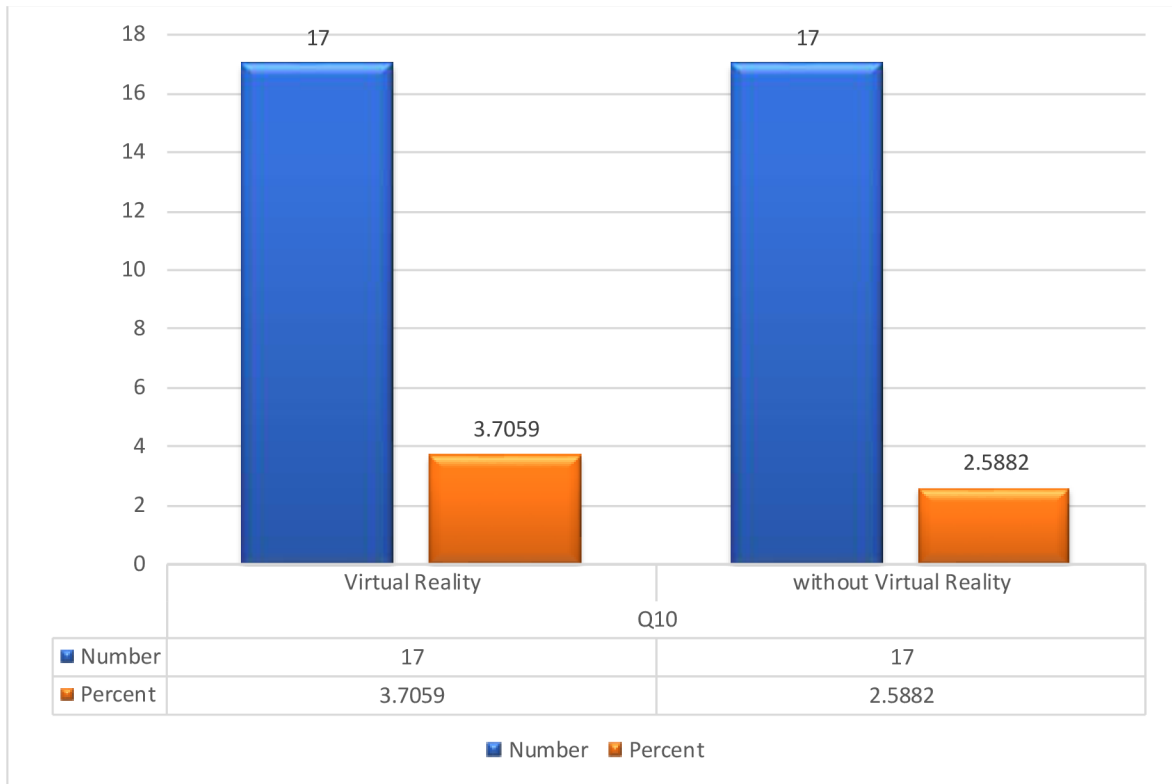
In figure 5.12, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (8) *“To what extent do restaurant staff make you feel valued as a customer? (SERVQUAL: Empathy)”*. As we observed, in Q8, the mean score of the Virtual Reality group is 4.05, while the mean score is 3.05 in Without Virtual Reality group. The Virtual Reality group shows a slightly better mean score than the Without Virtual Reality group. This finding suggests that exposure to a virtual reality experience in a restaurant setting had an advantageous impact on patrons' perceptions of the restaurant staff level of empathy. Customers may have felt more engaged and connected to the restaurant environment and staff as a result of the virtual reality experience's immersive nature, which may have strengthened their perception of being valued as a client.

Figure 5.13: the mean scores of customer’s surveys in Q9 in two groups



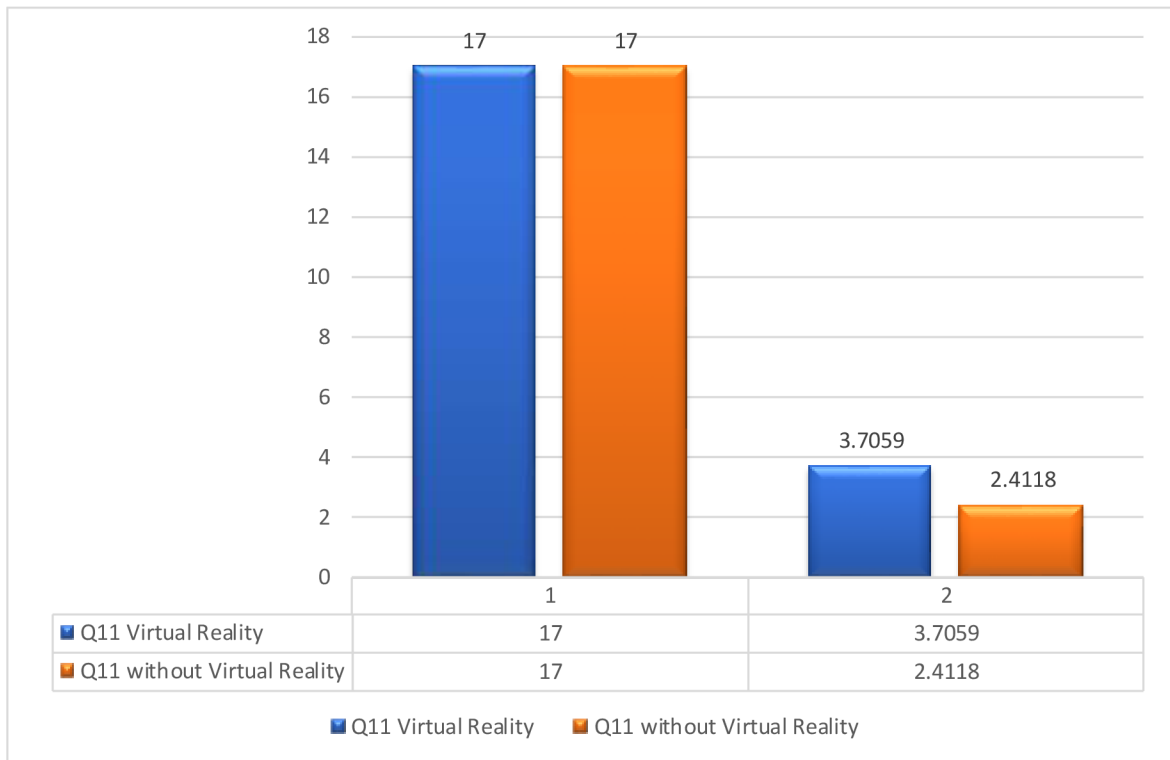
In figure 5.13, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (9) “*How would you rate the appearance of the restaurant? (SERVQUAL: Tangibles)*”. As we observed, in Q9, the mean score of the Virtual Reality group is 4.17, while the mean score is 2.88 in non-virtual reality group. The Virtual Reality group shows a slightly better mean score than the virtual reality group.

Figure 5.14: the mean scores of customer’s surveys in Q10 in two groups



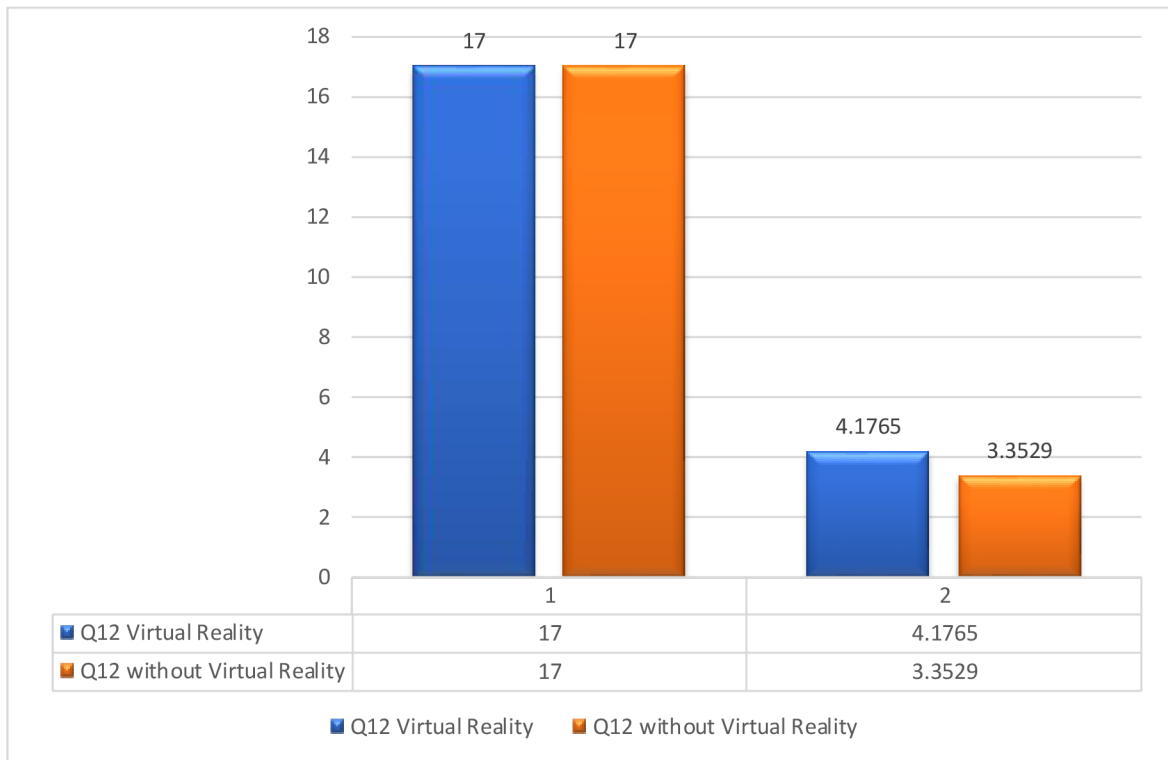
In figure 5.14, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (10) “*How would you rate the speed of service during your visit to the restaurant? (SERVQUAL: Responsiveness)*”. As we observed, in Q10, the mean score of the Virtual Reality group is 3.70, while the mean score is 2.58 in non-Virtual Reality group. The Virtual Reality group shows a slightly better mean score than the non-Virtual Reality group.

Figure 5.15: the mean scores of customer’s surveys in Q11 in two groups



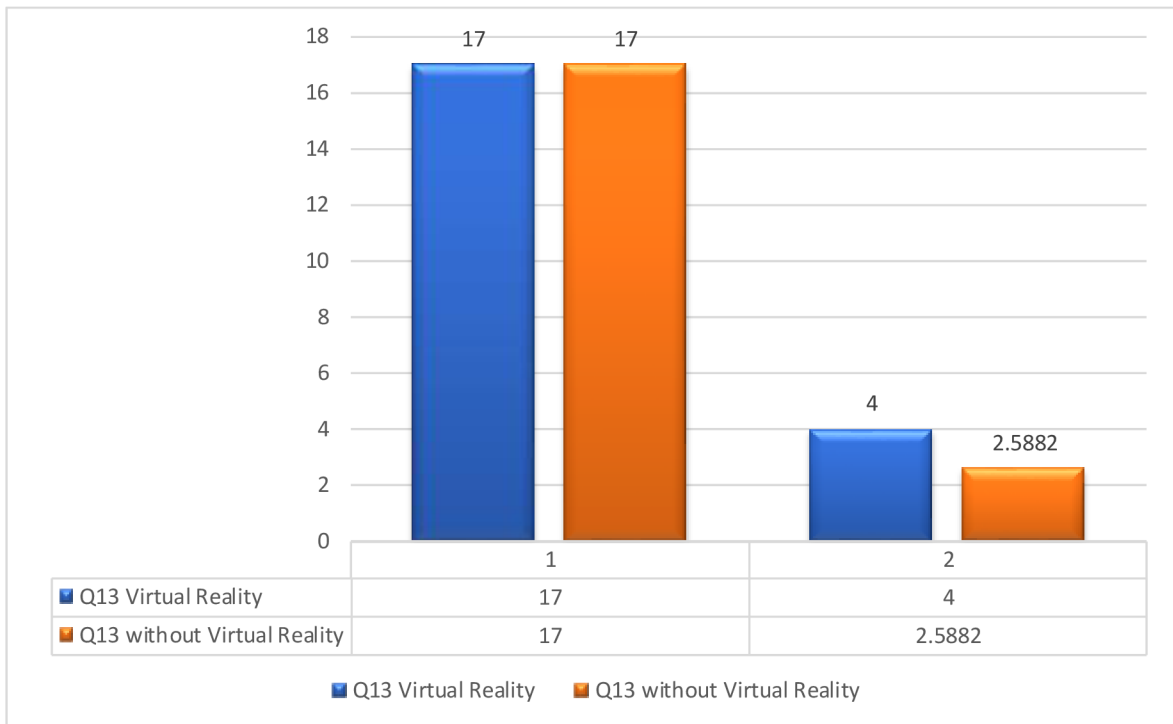
In figure 5.15, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (11) *“To what extent do you feel that virtual reality technology can improve the speed of service in restaurants? (TAM: Perceived usefulness)”*. As we observed, in Q11, the mean score of the Virtual Reality group is 3.70, while the mean score is 2.41 in non-virtual reality group. The Virtual Reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.16: the mean scores of customer’s surveys in Q12 in two groups



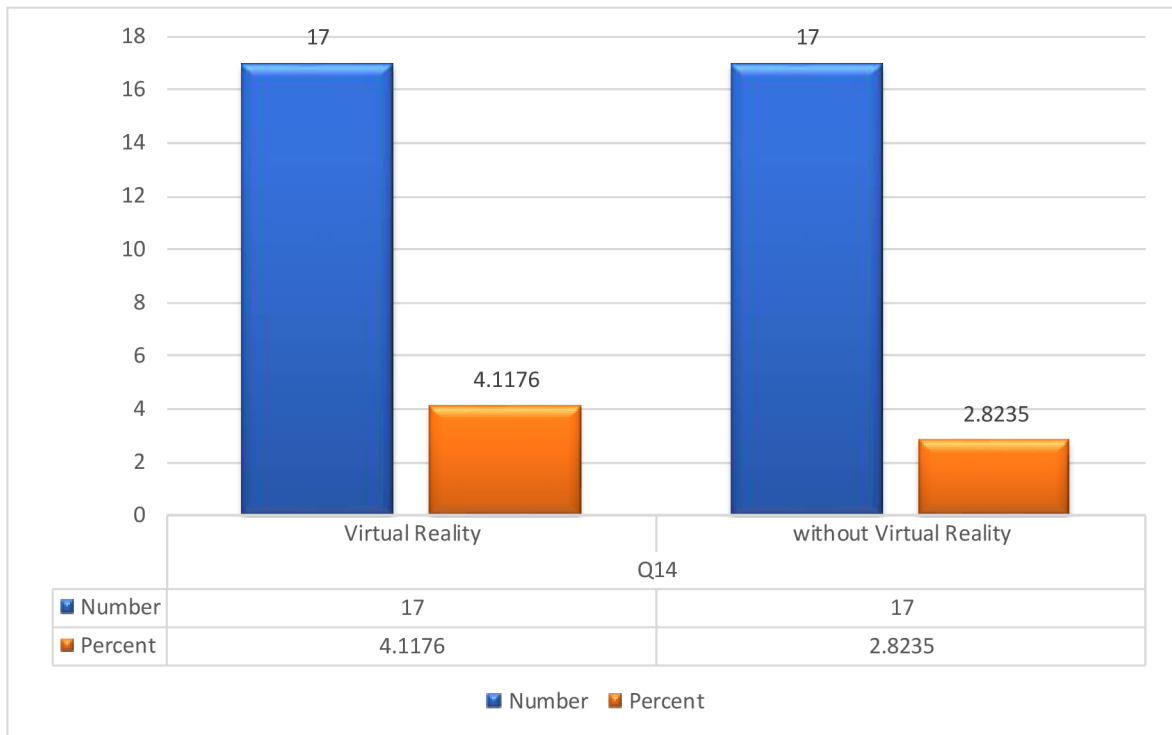
In figure 5.16, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (12) “*How satisfied are you with the food quality at the restaurant? (SERVQUAL: Tangibles)*”. As we observed, in Q12, the mean score of the virtual reality group is 4.17, while the mean score is 3.35 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.17: the mean scores of customer’s surveys in Q13 in two groups



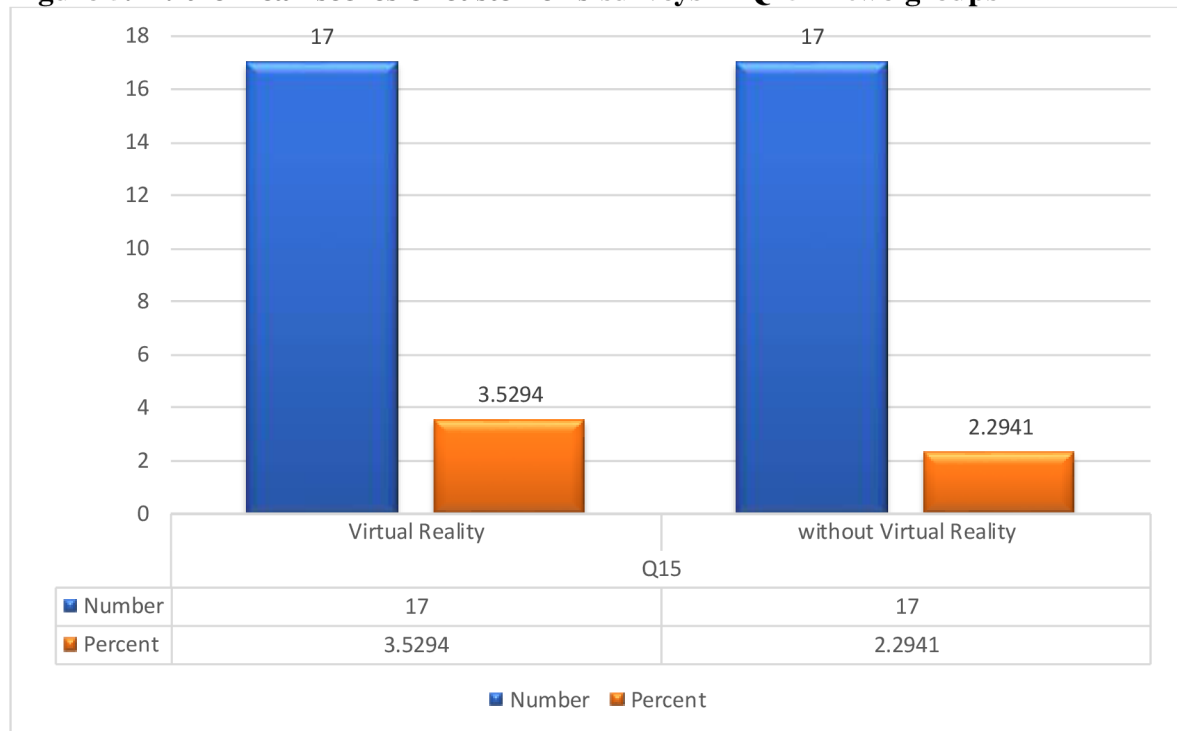
In figure 5.17, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (13) “*To what extent do you feel that virtual reality technology can enhance the dining experience for customers? (TAM: Perceived usefulness)*”. As we observed, in Q13, the mean score of the Virtual Reality group is 4.00, while the mean score is 2.58 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.18: the mean scores of customer’s surveys in Q14 in two groups



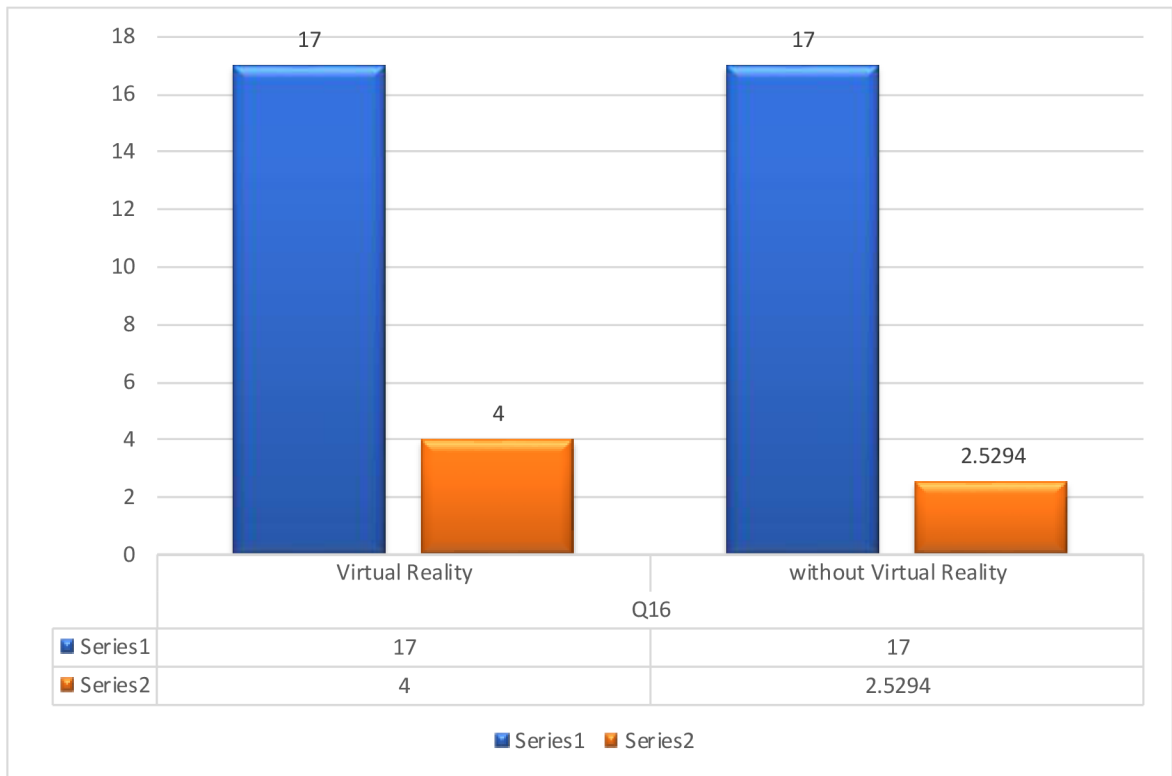
In figure 5.18, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (14) “*How likely are you to visit a restaurant that uses virtual reality technology again in the future? (TAM: Behavioral intention)*”. As we observed, in Q14, the mean score of the virtual reality group is 4.11, while the mean score is 2.82 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.19: the mean scores of customer’s surveys in Q15 in two groups



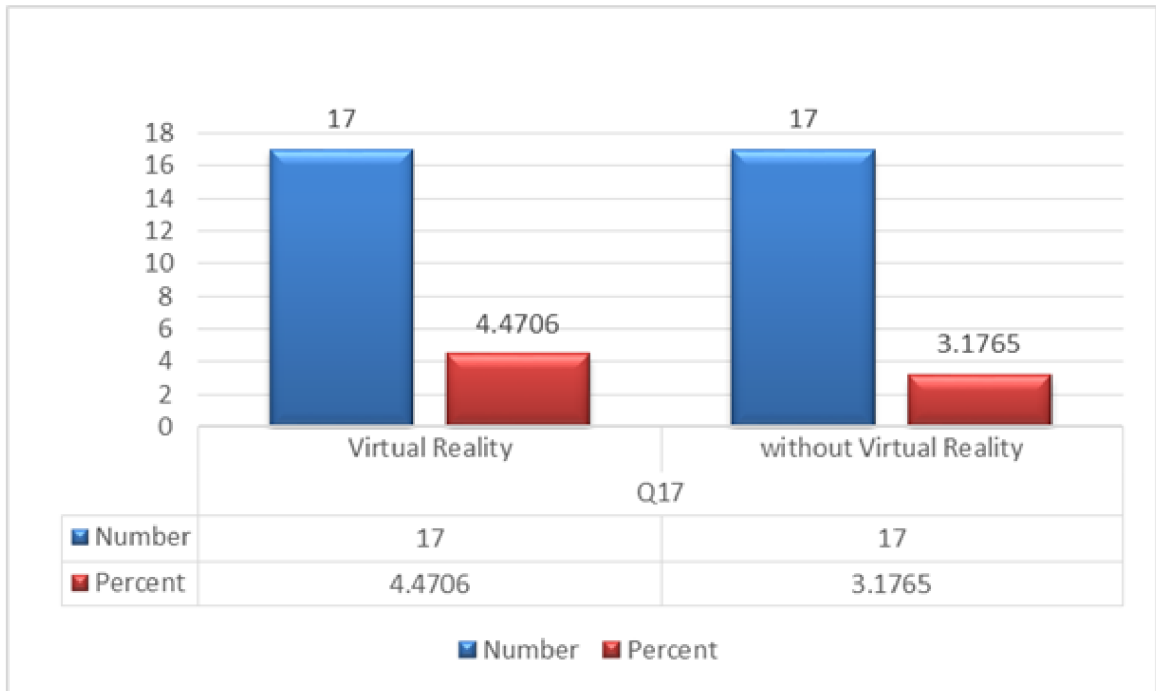
In figure 5.19, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (15) “*How important is it to you that restaurants use virtual reality technology in their dining experience? (TAM: Attitude towards use)*”. As we observed, in Q15, the mean score of the virtual reality group is 3.52, while the mean score is 2.29 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.20: the mean scores of customer’s surveys in Q16 in two groups



In figure 5.20, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (16) “How much do you agree that virtual reality technology in the restaurant makes the ordering process more convenient? (TAM: Perceived ease of use)”. As we observed, in Q16, the mean score of the virtual reality group is 4.00, while the mean score is 2.52 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

Figure 5.21: the mean scores of customer’s surveys in Q17 in two groups



In figure 5.21, the graph shows the difference between the mean scores of customer’s surveys between two groups for question (17) “*How would you rate the overall customer satisfaction during your visit to the restaurant? (SERVQUAL: Overall satisfaction)*”. As we observed, in Q17, the mean score of the virtual reality group is 4.47, while the mean score is 3.17 in non-virtual reality group. The virtual reality group shows a slightly better mean score than the non-virtual reality group.

5.2.2 Part (B): Restaurant Sales (Virtual Reality VS Non-Virtual Reality)

The second research question is concerned with comparing the mean scores of customers’ receipts between **Virtual Reality VS Non-Virtual Reality groups**. To this end, the obtained mean scores of the participants in virtual reality (VR) and the non-virtual reality (N-VR) are compared. Table 5.7 below shows the descriptive statistics and table 8 illustrates the results of the t-test.

Table 5. 7: Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
Customer receipts	Virtual Reality (VR)	17	18.5294	2.12478	.51534
	Without Virtual Reality (NVR)	17	15.0000	.00000	.00000

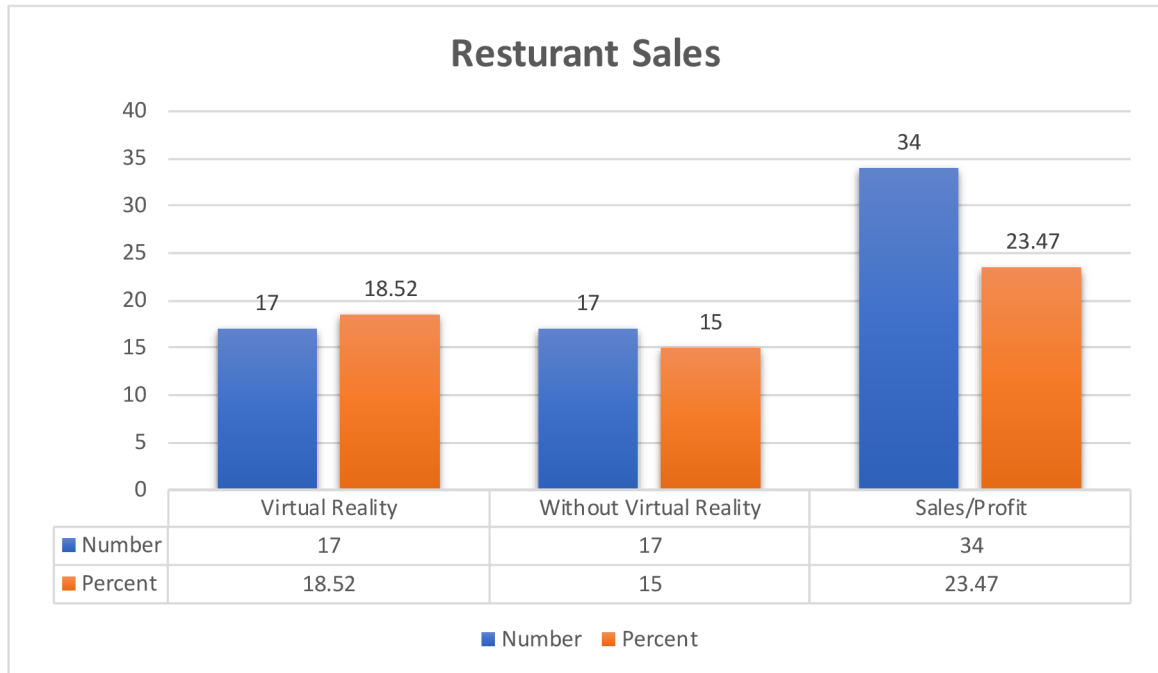
The mean score of the Virtual Reality group is 18.52, while the mean score of non- virtual reality group is 15.00. The virtual reality group shows a slightly better mean score than the non- virtual reality group. However, the two means should be compared to find out about the significance of their difference.

Table 5.8: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Customer receipts	Equal variances assumed	49.593	.000	6.849	32	.000	3.52941	.51534	2.47971	4.57912
	Equal variances not assumed			6.849	16.000	.000	3.52941	.51534	2.43695	4.62187

Based on the Table 5.8, it appears that the researcher conducted an independent samples t-test to compare the means of two groups. The significance level was .000, which suggests that there is strong evidence to reject the null hypothesis that the means of the two groups are equal. Therefore, virtual reality (VR) has any strong effect on increasing customers' sales.

Figure 5.22: the mean scores of customers' receipts in two groups



The mean score of the Virtual Reality group is 18.52 Euro, while the mean score is 15.00 Euro in Without Virtual Reality group. The Virtual Reality group shows a slightly better mean score than the Without Virtual Reality group. However, the two means should be compared to find out about the significance of their difference. Therefore, we can conclude the restaurants sales/profit via collecting the customer's receipts by restaurant staff.

5.3 Summary of key findings

The key findings of the research indicate that virtual reality technology may have a positive effect on customers' perceptions of a restaurant's menu offerings, atmosphere, and overall dining experience. This is suggested by the fact that virtual reality technology was found to have such an impact. In particular, it was discovered that providing participants with a virtual reality tour increased both their probability of making a purchase and their level of satisfaction with the restaurant. In addition, the tour was successful in providing a more immersive and informative experience for participants, which indicates that the technology behind virtual reality has the potential to increase customer engagement and loyalty. When understanding these findings, however, it is essential to keep in mind the constraints that were placed on the research. Because the sample size was comparatively low and it was drawn from just one restaurant location, the findings cannot be generalized to the

entire restaurant industry. In addition, the research only investigated the short-term effects of the virtual reality tour on customer satisfaction and sales.

In spite of these limitations, the findings of the research have significant repercussions for the hospitality industry, specifically the restaurant business. According to the findings of the study, the application of virtual reality technology in restaurants may provide a competitive advantage by improving the quality of the eating experience and elevating the level of customer satisfaction. This, in turn, may result in increased revenue and continued patronage by existing customers. In addition, the technology of virtual reality can be used by restaurants to differentiate themselves from their rivals and attract new consumers who are interested in having dining experiences that are immersive and one-of-a-kind. To build on these findings, the researcher suggests that further research investigate the long-term effects of virtual reality tours on customer satisfaction and sales, as well as the potential for virtual reality technology to be used in other aspects of the dining experience, such as food preparation or service delivery. This recommendation comes as a result of the findings that were presented here. In addition, more research needs to be done to investigate whether or not it is possible and whether or not it would be cost-effective to implement virtual reality technology in the various kinds of restaurants and hospitality organizations.

In summary, the results of this research point to the fact that the application of virtual reality technology in the restaurant business has the potential to bring about a strong change by delivering fresh and original experiences to consumers. However, it is essential to take into account the constraints of the study and carry out additional research in order to gain a comprehensive understanding of the effect that this technology has on the level of customer satisfaction, sales, and the overall dining experience.

5.4 Limitations of the study

It should be mentioned that this study, like all others, has some limitations and delimitations, which should be taken into account while generalizing the findings. In this study, the researcher acknowledges the limitations of this study, which are important to consider when interpreting the results. The researcher notes that the sample size was relatively small and drawn from a single restaurant location, which limits the generalizability of the findings.

This limitation is significant because it means that the results of the study may not be representative of the broader population of restaurant customers. The sample size is also relatively small due to the high cost of using virtual reality, which can impact the statistical

power of the study and limit the ability to draw strong conclusions. The researcher acknowledges that future research with a larger and more diverse sample is needed to confirm the results and determine the extent to which they can be generalized to other contexts. Additionally, the study only examined the short-term effects of the virtual reality tour on customer satisfaction and sales and did not consider the long-term impact or the potential for the tour to become less effective over time. This limitation is important to consider because it suggests that the positive impact of the virtual reality tour may not be sustained over the long term. The researcher also notes that future research should explore the long-term effects of virtual reality tours on customer satisfaction and sales to determine whether they are a sustainable and effective strategy for restaurants to adopt.

Another limitation of the study is that it only examined the impact of virtual reality technology on one specific aspect of the dining experience. The researcher suggests that future research should explore the potential for virtual reality to be used in other aspects of the dining experience, such as food preparation or service delivery. This limitation is important to consider because it suggests that the impact of virtual reality technology on the dining experience may be more complex and multifaceted than the study was able to capture. By exploring the potential for virtual reality to be used in other aspects of the dining experience, future research can provide a more comprehensive understanding of the effect of this technology on customer satisfaction and sales.

Finally, the researcher acknowledges that the adoption of virtual reality technology may require significant investment and resources and that not all restaurants or hospitality organizations may be able to afford it. This limitation is important to consider because it suggests that the impact of virtual reality technology on the restaurant industry may be limited by economic factors. The researcher suggests that future research should explore ways to make virtual reality technology more accessible and affordable for restaurants of all sizes and budgets so that they can also benefit from its potential to enhance the dining experience and increase customer satisfaction.

In summary, while this study provides valuable insights into the potential benefits of virtual reality technology for the restaurant industry, it is important to consider the limitations of the study when interpreting the results. By acknowledging these limitations and suggesting directions for future research, the researcher provides the implications of this study for the restaurant industry.

5.5 Recommendations for Future Research

In the final section of this study, the researcher outlines several recommendations for future research related to the use of virtual reality technology in the restaurant industry. The researcher notes that while this study provides valuable insights into the potential benefits of virtual reality tours for restaurants, there is still much to be explored and understood about the use of this technology.

One of the research's primary recommendations is that future research should examine the long-term effects of virtual reality tours on customer satisfaction and sales. While this study found that participants in the virtual reality group reported higher amounts of satisfaction and were more likely to make a purchase than those in the control group, these effects were only measured in the short term. Future studies could examine whether these effects persist over time and whether virtual reality tours continue to provide a competitive advantage for restaurants in the long run.

Another recommendation that the researcher makes is to explore the potential for virtual reality technology to be used in other aspects of the dining experience, beyond just menu offerings and atmosphere. For example, future research could examine the use of virtual reality technology in food preparation, such as allowing customers to virtually watch their food being prepared in the kitchen. Additionally, virtual reality could be used to enhance the service experience, such as by providing virtual "servers" who can guide customers through the menu and answer questions.

The researcher also recommends that future research should examine the cost-benefit analysis of virtual reality technology for restaurants. While virtual reality has the potential to provide significant benefits, such as increased customer satisfaction and sales, it may also require significant investment and resources to implement. Future studies could explore whether the benefits of virtual reality technology outweigh the costs and whether certain types of restaurants or hospitality organizations are better suited to adopt this technology than others.

Finally, the researcher suggests that future research could explore the potential for virtual reality technology to be used in other contexts within the hospitality and tourism industries. For example, virtual reality could be used to enhance the experience of hotel guests or to provide virtual tours of tourist attractions. By exploring these other contexts, researchers

could gain a better understanding of the potential benefits and limitations of virtual reality technology in the broader hospitality and tourism industries.

In summary, the research's recommendations for future research emphasize the need to further explore the potential benefits and limitations of virtual reality technology in the restaurant industry and the broader hospitality and tourism industries. By examining the long-term effects of virtual reality tours, exploring other aspects of the dining experience that could be enhanced with virtual reality, and conducting cost-benefit analyses, researchers can gain a more comprehensive understanding of the potential of this technology.

5.5.1 Implication for Further Research

In this section of the study, the researcher discusses the implications of this study for practice within the hospitality and tourism industries. The researcher notes that the use of virtual reality technology can provide practical benefits for restaurants and hospitality organizations, such as increased customer satisfaction and loyalty and a competitive advantage in the market. The researcher suggests that restaurants and hospitality organizations that adopt virtual reality technology should carefully consider the potential benefits and costs of implementing the technology. They should also consider how to effectively integrate the technology into the overall customer experience and ensure that it aligns with their brand and values. Moreover, the researcher suggests that the use of virtual reality technology in the hospitality and tourism industries is not limited to restaurants. Other potential applications include virtual hotel room tours, immersive destination experiences, and interactive travel planning tools. By incorporating virtual reality technology into their operations, hospitality organizations can create more engaging and memorable experiences for their customers.

Additionally, the researcher notes that the use of virtual reality technology can also benefit employees in the hospitality industry. For example, it can be used to provide training and development opportunities, such as virtual simulations of different customer service scenarios. This can help employees better understand and respond to customer needs and improve their overall performance. Overall, the implications for practice of this study suggest that the adoption of virtual reality technology can provide significant benefits for both customers and employees within the hospitality and tourism industries. By carefully weighing the potential benefits and costs of implementing the technology, hospitality

organizations can create more engaging and memorable experiences for their customers and improve the performance and satisfaction of their employees.

5.6 Conclusion

The primary purpose of the study was to examine the effectiveness of utilizing virtual reality in increasing sales in the restaurant industry. The secondary purpose was to analyse if there was a significant difference between the utilization of virtual reality (VR) and non-virtual reality groups in the improvement of sales in the restaurant industry. The most useful finding from this study was that in comparing the virtual reality (VR) and non-virtual reality group, we conclude that VR increase sales and customer satisfaction. The goal was to assess if there were any differences in the customers satisfaction and the restaurants' developments in sales in the virtual reality (VR) and non-virtual reality groups. Findings from this study indicated that the participants in the virtual reality (VR) could outperform the non-virtual reality groups. In the concluding section of this thesis, the researcher summarizes the main findings and implications of this study. The researcher also notes that virtual reality technology has the potential to enhance the dining experience and increase customer satisfaction, and that restaurants that adopt this technology can differentiate themselves from their competitors and attract new customers.

The researcher also acknowledges the limitations of this study, including the small sample size and the fact that it only examined the short-term effects of the virtual reality tour. She suggests that future research should address these limitations by conducting larger-scale studies and examining the long-term effects of virtual reality technology on customer satisfaction and sales.

Overall, the study provides valuable insights into the potential of virtual reality technology in the restaurant industry. By enhancing the dining experience and increasing customer satisfaction, virtual reality technology has the potential to transform the industry and provide new and unique experiences for customers. However, the adoption of this technology may require significant investment and resources, and not all restaurants or hospitality organizations may be able to afford it. In light of these findings, the researcher recommends that restaurant managers and marketers consider the potential benefits of virtual reality technology for their businesses. By providing a more immersive and engaging dining experience, restaurants can increase customer satisfaction and loyalty, and ultimately drive sales and revenue. The researcher also suggests that future research should explore the

potential for virtual reality technology to be used in other aspects of the dining experience, such as food preparation or service delivery. In conclusion, the study highlights the potential of virtual reality technology to transform the restaurant industry and enhance the dining experience for customers. By adopting this technology, restaurants can differentiate themselves from their competitors and attract new customers who are interested in immersive and unique dining experiences. However, further research is needed to fully understand the long-term effects of virtual reality technology and its potential for wider application in the hospitality and tourism industry.

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7 Appendix

7.1 Customer Survey for Perception Form

Enhancing the Restaurant Experience in **STULE** (Kiel): A Customer Perspective

Thank you for participating in our survey. For some of the questions, we would like you to rate your responses on a scale of 1 to 5. This means that you will need to choose a number between 1 and 5 that best represents your opinion or experience.

Here is what each number on the scale means:

- 1: Strongly disagree
- 2: Somewhat disagree
- 3: Neutral
- 4: Somewhat agree
- 5: Strongly agree

Please choose the number that best reflects your opinion or experience. Thank you for your participation.

1. What is your age?

- 18-30
- 31-45
- 46-65
- 66-76

2. What is your gender?

- Male
- Female



3. How often do you dine out?

- 1
- 2
- 3
- 4
- 5

4. How important is the restaurant's location and decoration when you dine out?

- 1
- 2
- 3
- 4
- 5

5. How often do you use virtual reality technology?

- 1
- 2
- 3
- 4
- 5



6. Have you used virtual reality technology in this restaurant?

Yes

No

7. Is it easy for you to learn to use virtual reality technology in the restaurant setting?

1

2

3

4

5

8. To what extent do you believe that virtual reality technology enhances your dining experience?

1

2

3

4

5



9. Do you think virtual reality technology will become a more common feature in restaurants in the future?

- 1
- 2
- 3
- 4
- 5

10. How would you rate the quality of service provided by restaurant staff during your visit?

- 1
- 2
- 3
- 4
- 5

11. To what extent do restaurant staff make you feel valued as a customer?

- 1
- 2
- 3
- 4
- 5



12. How would you rate the appearance of the restaurant?

- 1
- 2
- 3
- 4
- 5

13. How would you rate the speed of service during your visit to the restaurant?

- 1
- 2
- 3
- 4
- 5

14. To what extent do you feel that virtual reality technology can improve the speed of service in restaurants?

- 1
- 2
- 3
- 4
- 5



15. How satisfied are you with the food quality at the restaurant?

- 1
- 2
- 3
- 4
- 5

16. To what extent do you feel that virtual reality technology can enhance the dining experience for customers?

- 1
- 2
- 3
- 4
- 5

17. How likely are you to visit a restaurant that uses virtual reality technology again in the future?

- 1
- 2
- 3
- 4
- 5



18. How important is it to you that restaurants use virtual reality technology in their dining experience?

- 1
- 2
- 3
- 4
- 5

19. How much do you agree that virtual reality technology in the restaurant makes the ordering process more convenient?

- 1
- 2
- 3
- 4
- 5

20. How would you rate the overall customer satisfaction during your visit to the restaurant?

- 1
- 2
- 3
- 4
- 5



7.2 HMD (Head-mounted Display)



7.3 An example of a customer using Virtual Reality in a Restaurant

