The Contribution Of Virtual Fitting Room In Fashion Clothing Business: A Systematic Literature Review

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ABSTRACT

Virtual Fitting Room is the new technologies for trying on clothes without actually trying it. Many studies have conducted research of VFR, but not many conclude the research to help businesses and researchers better understand VFR. The purpose of this systematic literature review is to gather the research journals of VFR and being a guid for future research on knowing more about VFR in the past 5 years. With the selected 20 research journals, this study covers the geographic distribution of VFR research, the method used by researchers and the outcome variables used in VFR research. Our study shows that the majority of research conducted are from USA and china, the method used by most researchers was experiment which have a various outcome, while the most selected key contribution is usage intention's.

INTRODUCTION

The fashion industry is day changing field, always growing as technology is advancing. In the last couple of years, fashion has seen a wave of alterations that have changed the way clothes are bought disrupting the experience being developed and making it more convenient. Out of all the innovations probably the most important one is virtual try-on technology on the top of which virtual fitting rooms (VFRs) rank quite high.

Studies indicate that the most fervent consumers seem to be those who seek the pleasure of going home. Ghodhbani et al. (2022) were able to come up with a significant number of clients who are ready to spend an extra amount in order to try out clothes virtually. This number is slightly close to 40%. This is most likely because of the additional experience VRs provide compared to the Direct Fit product line, making it possible for users to discover more racing options or customize choices to better fit their bodies.

As for the present, the conventional shopping remains a problem. Offline customers often face the confusion of size adaptation, while the fitting room lineups might be very long in offline store (Sunam et al.,2023). This leads to the tracing of an issue that helps in creating a solution which merges online and in-store experiences.

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RAFs are a feasible solution to this problem. Consumers are the ones that have the opportunity to virtually try on clothes just as if they were in the store in this manner. These digitized platforms provide the convenience of shopping at home since the consumer gets a chance to virtually try the clothing. By addressing the drawbacks of existing systems, as reported by Sunan et al. (2023), who indicated that current techniques cannot give a wide variety of personalized trial experience, we aim to narrow the gap.

However, there are certain issues that the developers and the government should be well aware of in order to overcome and achieve VFRs' great potential. In May 2023, Batool and Mou pointed out these social, cultural, and psychological elements lie at the very core of the matter. From aged tech to social influence and cultural values, these all shape the market in adoption.

Thus, the depth appreciation of VFRs' role in stimulating business innovation plays a critical role in the fashion clothing production. The aim of this research is to fill the gap if any, in the existing literature on the issue by giving the systematic review of recent five-year research trends. Through the analysis of the findings, the research work will bring up new information and guidance for the future researchers and the developers who understand the virtual fitting room technology and intend to make its progress.

A. Statement of The Problem

Still, it remains the most frequently bought item via online shopping, clothing generation does pose a number of valid and real issues to e-commerce vendors. Fashion shoppers are usually very selective when they buy clothes online; the common problems of the clothing not fitting properly or being in a wrong color often lead to a higher return rate than other online purchases (Zhang, Wang, Cao, Wang, 2019). This increasingly upsurges in profits indicates how challenging customers visualize how will the clothes looks like upon them in the course of purchasing.

Although VFR technology has been given much attention by researchers across many areas and expertise, a missing part has been identified in case of clothing industry especially in fashion. Some scholars like Batool and Mou in 2023 have conducted a study on the theory of try-on technology in fashion over the past 18 years while Xi and Hamari (2021) have given a general review of VR retail research methods; however, no existing study has specifically focused on the role of VFRs in high-tech fashion business. This is rather problematic since this absence of the focused review prevents scholars from getting the related information on VFRs' effects in the fashion clothing industry.

Therefore, the task we face today is noteworthy not only because of the contradictory nature of the research on fashion consumerism, but also owing to its many diverse aspects making it impossible to pinpoint most VFRs. This is a huge challenge amongst researchers and fashion industry experts to find a succinct memo that covers the broad overview of VFRs' contributions to business that is common. The absence of a common source of information frequently stimulates confusion and can make it more difficult to identify successful VFR development or implementation approaches, given that each community is likely to have different needs and assets.

The scientists, though, are not only included in the problem. Unlike consumers, who are left with unclear realization of VFR technology and the benefits it may have in the long run, VFR technology offers numerous advantages to industries. While the lack of a total resource would create challenge the public in their info. gathering about VFR quite a few techs and about the possibility that this can be actually improve the online shopping experience.

By addressing this gap, this study aims to streamline the research process for both academics and industry professionals. By creating a systematic review of relevant research conducted over the past five years, this thesis will provide a valuable resource for those seeking to understand the contributions of VFRs to the fashion clothing industry. This consolidated knowledge base will empower researchers to build upon

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existing findings and guide businesses in implementing effective VFR solutions. Ultimately, this work can contribute to a more seamless and satisfying online clothing shopping experience for both consumers and businesses.

B. Aims and Objectives

This systematic literature review aims to achieve the following objectives: To analyze the geography of research that states the rational application of virtual fitting rooms (VFRs) in the fashion clothing sector for the last five years. The purpose of this is to explore the regions where there are more Vocational Faculty research and where potential gaps in geographical focus might be.

This study aims to determine the primary research approaches that have been used in quantifying the role of virtual fitting rooms (VFRs) in fashion clothing industry. Through this objective the research work will define the most appreciated approaches by scholars on how VFRs

impact the industry. In this section, I intend to summarize and harmonize the main components of contribution VFRs to the fashion clothing industry that are revealed by related research works. This is an ultimate goal to understand all the benefits that were already provided by VFR in this context and to know what more can be introduced in this regard as we move along.

C. Research Contribution

First, the systemic literature review will assist to broaden the existing knowledge by delineating the geographic distribution of VFR research over the last 5 years in the fashion clothing industry and create a clearer information locator map for research trends and potential areas for further exploration. The study may be a guide to future researchers by developing some methodologies or research approaches. The review of commonly used methodologies in VFR research will offer key perspectives on how researchers make conclusions concerning the technology. This data can largely record achievement of current studies on identifying right path and required conditions for further research to cope with possible methodological problems. Finally, by contributing to VFRs In the end, this paper tries to summarize diverse past research, in order to bring to light the current and future VFRs to the fashion apparel industry. Therefore, both the educational impact and the research-based outcome of this platform will be crucial to determining future research directions and development efforts as well.

Theoretical Contribution

This study is helpful in generating ideas and building theories behind virtual fitting rooms (VFRs) in the realm of fashion clothing. This research can enrich the extant technology adoption model and breaks more new grounds by investigating how VFRs influence consumers in terms of decision making and firms strategies. It would be critical to aid theories in the fashion industry technology adoption.

Our second theoretical contribution was in Incrementally and aging the knowledge of the virtual reality applications. This would unlock wider possibilities for the usage of such techniques in the fashion commerce industry that would be based on the acquired research findings. With this insight, we can add a level of depth to the discussion of VR's future prospects in different business environments.

Practical Contribution

This research gives practitioners practical benefits who are both academics and fashion enterprise members. Therefore, By Giving directions to future research on which methods are efficient and elucidating the gaps on the develop the applications of VFRS, this thesis can guide the future research on this field. we will also Be a significant player with the data production, offered through our company. Recognizing the major role that VFRs play can thus serve as a foundation for firms to select the best deployment strategy as well as fit VFRs appropriately in their overall customer experience plan.

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The next significance role that we intend is the one which is Supporting innovation by orbiting all over the VFR research and a comprehensive resource can be developed. Thus, this study will actually support innovation in the field of fashion through influencing companies to embark on a research journey towards the implementation of VFRs.

LITERATURE RESEARCH

A. Augmented Reality (AR) in Fashion Retail

AR has been quickly gaining traction as an influential technology solution that is set to reshape fashion shopping. Augmented Reality technology merges the generated effects such as filters, backgrounds etc. with the real-life by adding virtual elements to the real world creating an engaging experience which blends two platforms of online shopping and physical stores. It is the most compelling use case to virtual fitting rooms (VFRs), which emerge as a game-changing solution for online shopping of clothes, that is, VFRs enable shoppers to see how clothes will fit them by using virtual simulators to real world sizes.

Obviously, many customers have problem in their mind on how the clothes will be tried on, without having tried them…A consumer-facing ARtechnology called 'AR-powered VFRs' targets this gap by allowing users to 'try on' the clothes from the comfort of their home. The works conducted by Li and Cohen (2021) and Sunan et al. (2023) were focused on the possible functionalities of in-home VFR systems, especially to enhance the ease of use and accessibility wherever the user is. Garment evaluation through AR serves to provide customers with a platform for evaluating products in an objective and realistic manner, and as Robert Baytar and his co-authors assert in their work (Bayta??r et al. 2020), this technology offers the utilization of countless features such as different angles of view, as well as the capability to enlarge, observe in details, or zoom out the products.

In addition to resolving the issue of unsuitable fitting, visualizing the real-life appearance of fashion pieces allows for the improvement of the shoppers' online experience too. As the author Lee et al. (2021) demonstrated, the consumer understanding and acceptance of VFRs is a complex and multi-dimensional concept, in which factors such as regulatory environment and involvement in shopping are manifested. VFRs can accommodate both pre-planned and spontaneous purchasing patterns of shoppers toward consumption. Park and Kim (2021) argued that AR will intensify the product evaluation process, which will, in turn, bear greater purchase intention for customers who are particular about their goals. On the other hand, VRs may be characterized by the sense of exploration, exhilaration and fun, and hence will be drawn not only the avid shoppers but also the adventurous customers which will, in the end, boost seller sales (Koppens, 2021).

The potential of AR in fashion retail is not without its challenges. Ensuring the accuracy and realism of virtual clothing representations is crucial for user adoption. Additionally, concerns regarding data privacy and security need to be addressed to gain consumer trust. However, as AR technology continues to evolve and overcome these challenges, its impact on the fashion industry is poised to be significant.

B. Virtual fitting room

Virtual fitting rooms (VFRs) have been a mark of a newer technology in the fashion industry which has been a sort of to online clothing shopping experiences. Using this technology it is supported to test out the clothes in different sizes, styles and colors via smart machines or smartphones camerasBy simulating a physical fitting room experience, VFRs address a critical challenge in online retail: the difficulty to represent accurately fit, when there is no possibility to bring in an item of clothing to try it. In this literature, the contribution of VFR on the consumers' lives and the businesses is shown including the capability of VFRs to improve the shopping experience at last to reform the fashion industry.

The key advantage of VFRs is that they make shoppers possess more power in driving an interactive online shopping scenario. Research by Batool and Mou (2023) and Lee et al. (2021) is aimed at establishing the idea that VFRs can become an interactive tool which makes it possible to assess products and decrease an uncertainty risk for customers. The ability of customers to be in control of the music they listen to goes a long way in breeding confidence and satisfaction and as put across eloquently by Attah et al. in their present study (2024).

Moreover, VFRs comprise of valuable research findings such as customer engagement and marketing prospects that can be used by businesses to further improve those areas. According to O'Beck and Crié (2018) experiences that VFRs provide are not only likely to develop purchasing intentions, but they also inspire exploratory behavior. This can be explained through the interactive VRs which let the users play with different variations and assembling. Through VFR investigation, organizations have an opportunity to achieve essential overall product comprehension and make offers that satisfy their clients' needs. In that way, Ileperuma et al. (2020) look for a better deep neural networks-based enhancement that allows one to personalize the experience using data to reflect what users buy.

In addition to VFRs, the fashion industry also has an opportunity to focus on operational efficiency, and this can help it to operate more efficiently and reduce production times and costs. The works of Lu et al. (2021), observed the Chinese market, revealed how VFRs have the ability to simplify shopping in the physical surroundings of the stores. Reinforcing one functioning alternative to the old way of trying is a great idea of VFRs. This can ensure customers' satisfaction and perhaps less crowding in shop. Furthermore, Galagoda et al. presented an example of VFR application for handheld devices which aims to make the use of the technology more available and simpler to use the consumers.

VFRS are not only the factors behind the surge of sales and efficiency of the current operations but also various indirect areas of influence. Wang et al. (2021) reveal that user-friendly technology VFR has a profound impact on people´s attitude and willingness to purchase. These positives will be passed to the consumers through consumer behavior innovations which will in turn boost the businesses with a successful VFR implementation. With time, VFR technology becomes more efficient and known to a greater number of stakeholders almost every sector of the fashion industry is hit and influenced by perks.

C. Virtual Dressing Room

With the development of virtual try on (VTO) technology, online garment customers will no longer have to change their clothes and exit the house just for trying on clothes. In contrast to the online shopping experience that can involve wrong sizes or inconvenience due to poor fit, the VTO clothes will virtually let users try on garments in a digital dressing room. The technology uses a system, which combines computer vision and augmented reality (AR), to make a virtual simulation of clothes the way they could look like on a personal body. The subject of this literature review is the impact VTO has on consumer behavior and how it can affect business strategies. It is identified to be the prospective one to overhaul e-commerce business logic.

One of the key advantages of VTO lies in its ability to address a major pain point for online shoppers: the degree of qualm about fitting. For consumers, VTO has the potential to be another platform to evaluate products and take, thus, fewer risks regarding their online purchases, by allowing them to enjoy an unparalleled virtual experience. In other words, it results in the upliftment of a person's self-esteem as they feel more content with the end result, however, in the long run that is what leads to more educated picking.

In addition, VTO provides businesses the ability to make personalized shopping experiences for users with driving sales as a net result of behavioral insights. According to Hua et al. (2024), a recent Forbes article states that a given user's characteristic regards the VTO adoption. One way to achieve this is through post-use observation of satisfaction and personal preferences. This may help to put the correct tweaks to VTO applications so as to meet the needs of certain groups of customers. Besides, according to Tawira and Ivanov (2023), the VTO apps like VTO that intend to come up with new e-commerce apparel models that are based on the personalization and customization affordances of VTO apps can be seen. It is this (personalized approach) that can substantially improve the customer's life experiences, which eventually builds brand allegiance.

Apart from personalization services, VTO prove that it is possible to plan the marketing campaign effectively. Beck and Crié (2018), among others, brag on how product sampling programs not only increase intention to buy but can also boost exploration behavior. This is achievable since virtual try-on enables users to housekeep and try on different styles as well as product combinations hence, this can greatly discover new product categories. This adventure curiosity will lecture in customer attention and might cause to boost average order value. VTO is not a scary phenomenon anymore, but it is here to stay ready or not. VTO websites can be installed in both online and physical stores as a unique and easy measure that replaces the traditional dressing rooms. Information of product availability and promotion may be provided, which will result in the customer satisfaction at the highest level and the elusive case of overcrowded shops can be

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cleared up. Moreover, VTO can help in collecting amazing data about how things work, and which preferences customer have. Similar data gathered can help with inventory management and also can help create new products.

D. Virtual Try-on

Virtual try-on VTO technology is gaining ground so fast to transform the shopping environment even in apparel sector. Different from a routine online shoping involving the risk of wrong size with the possibility of unpleasant fit, VTO offers the users to virtually "try on" clothes in the digital fitting room. This technology has the advantage of utilizing computer vision, augmented reality (AR), and 3D body scans to create a realistic picture how electronics on an individual's body would look like. The current research investigates the multiple ramifications of fast fashion on consumers and corporation with an emphasis on prospects for improving shopping process for clothes through VTO.

One of the most significant advantages of VTO lies in its ability to address a major pain point for online shoppers: the fact that they don't know whether they will fit or not. Research on VTO by (Batool and Mou) (2023) and Ghodhbani et al. (2022) shows that VTO allows consumers to be on the same level by delivering a more realistic experience of the product and ultimately reducing the risk
by creating a feel and sense of the product at their home that they will not get from the online stores. This reduction of uncertainty means customers will have higher level of confidence which then leads to a satisfied customer. The customer base will have better information that will be used by the customers when making buying decisions.

Way beyond this VTO supports the retailer gathering information about the user habits which they can manage to use for their advantage, often this supports the optimization of e-shop, adjusting it to the needs of users which leads to the boost of sales. Research of Hua et al. (2024) gives emphasis on the requirement of comprehension of demographic factors and how they govern the decision-making process of users towards VTO. The conducting of the post-application use analysis and individualized preference perceptions enables businesses to improve the implementation of their VTO and tailor offerings to certain customer segments. Besides, Tawira and Ivanov (2023) offer new models for online apparel shopping that closely tie into the personalization and customization ensured by VTO apps. Tailoring the product to meet the customer's personal interests will have a tremendous effect on the level of engagement and satisfaction. Chances of brand loyalty and higher sales in the long term will greatly increase.

Beyond just the solving of fit problems, VTO also gives businesses the chance to get information about how users behave that can then benefit the business by personalizing the shopping experience for the clientele so that these clients can be aided to sales maximization. The highlighted work by Run Hua et al. in response to VTO adoption canvasses the depth of consideration for the user characteristics that are closely related with VTO adoption (2024). By evaluating the post-use feelings and investigating individual preferences among consumers, businesses are able to improve their VTO applications so that they can satisfy the needs of particular customers. Firstly, Tawira and Ivanov (2023) also recommend retail apparel e-commerce models that combine user personalization with customization capabilities inherent in VTO apps technology. This specific strategy can meaningfully add to the customers experience level and the amount of satisfaction they get to the point of nothing but being loyal to the brand.

Apart from making the e-commerce more accessible, VTO influences the overall consumption behavior greatly. lu and his team (2021) demonstrate the possibilities of VTO technology in the Chinese market, through the implementation of its application and subsequent streamlining of the shopping process in physical stores. Through VTO Service, which is quick and effortless in replacing the need for conventional fitting rooms, the level of customer satisfaction can be increased and probably lessen the queue from consumers and the merchants at stores.

Besides that, VTO is a chance for businesses to collect the most precious information about their output performance and customers' wants and preferences. The data sourced can further be incorporated in planning inventive strategies, determine effective development of new products and designing targeted marketing campaigns. For example, Beck and Crié's (2018) assertion is that user trust and proactive attitude towards eco-friendly products can play a crucial role in purchase decision making and exploratory behaviors. Through giving users a VTO, they learn which rules and combinations work, and they may try out new product

categories this way. This behavior can help to significantly increase customers engagement and even result in an upscale of average order prices.

E. Business Impact of VFRs

Virtual fit rooms (VFRs) are evolving as game-changing technologies in the clothing business in general, since they provide a broad range of advantages to both consumers and businesses. Touch or mobile technology of VFRs lets users to try on different sizes, styles and colors of clothes by virtually visiting the closet. It helps consumers to gain the knowledge they need to be able to make informed choice even where there are no physical stores available as proven in the report done by Batool and Mou(2023). Certainly, the stress is laid on the judgment potential of VFRs, which is expected to lower the risks through sampling of products in a virtual environment.

Away from the initial use of VFRs, the scholars add that consumer personality and trait are important features where they are connected with consumer expresses feedback. These authentic rays of light enable businesses to design marketing strategies that are tailored to meet the specific expectations of customers as well as a user interface that is most preferred. Eventually, a properly designed VFR will be so effective that it can successfully satisfy customer's passion for touch and reassure them to make informed decisions, thus resulting in a higher probability of making a purchase. Wang by et al. (2021) add the roleplay that the user-friendly VFR technologies, if seen as convincing and enjoyable, can significantly affect purchase intention. It really is one of the many powerful marketing tools for fashion brands when consumers are prepared to spend for clothes they want. VFRS combined with advantages highlighting is a means to brand acquiring and distribution of online shopping experience strategies refinement Kim and Park (2021) seem to provide more proof to the point that desire to purchase depends on the ad's sentiment. The principle of this research is that if customers are constrained by a specific purchase intent, AR-based VFR could indeed aid decision-making at the point of purchase. A VFR strategy can then fit well the exploration-exploitation framework whose focuses crowds look for more detailed product information through experiencing VFRS and can thus result in completed purchases.

Besides these achievements, e-commerce also has a positive effect on the economy. Lu et al. (2021) investigate that Virtual Reality technology (VR) influences real store experience. The results show that store front VR is a convinient time-saving solution for the customers; thereby, reducing time spent in the dressing room. This means that there is no need to spend wasted time as they are convinced of buying items and are therefore happy. Furthermore, they research shows that VFRS can also be an enticing attraction luring customers to physical stores, thus offering business owners a new more valuable method to capitalize on this new enjoyable technology. It is not only about the orders that are processed, but also about the number of returns, which are a real headache for just about any online store. Online shoppers cannot experience tactile stimulation and sizing problems usually occur or they simply buy the wrong size. VFRs bridge this gap by providing real-life experiences thus easing the decision-making process and at the same time reducing the returns due to the buyer's shopping dilemma.

The demand for VFR tech is just getting created so it becomes a strategic field for first-movers, The companies that can seamlessly melt both in-store and online VFR in the route to market and respond to customer requirements outside the shopping journey will therefore stand head and shoulders above the rest, potentially being a model for unique modes of transaction. Other than the delight of customers and reduced revenues losses, VFRs provide data collection that is useful. What Bazaki et al. (2019) report is that bringing salespeople into the virtual fitting room experience can not only increase customer engagement and trust but also create valuable customer data on product performance and this customer tastes during interaction. Through this information the strategies of marketing could be optimized and the process of creating an inventory could be more organized Besides short-term sales boost, VFRs do marketing work as well. According to Beck and Crié (2018), the branding of places and products within VFRs results not only in increased product consumption but also curiosity about new experiences. This clearly illustrates the capacity of VFRs in increasing the amount of engagement the customers have with the brand and making the customer loyal to the brand/business. More so, availability of VFR data to marketers will help in the studying customer behavior and subsequently creating appropriate targeted marketing campaigns.

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METHOD

In order to make this systematic literature review (SLR), an approach which proposed by Tranfield et al. (2003) is compatible as a method used. Figure 3.1 shows the process of SLR proposed by Tranfield et al. (2003) which have 3 main stages to achieve a goal of developing an evidence-informed knowledge management process (Ghadge et al., 2012). The three main stages are planning the review, conducting a review, and reporting and dissemination. The detail will be explained in literature collection procedures.

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Stage I–Planning the review

Phase 0 - Identification for the need for a review
Phase 1 - Preparation of a proposal for a review
Phase 2 - Development of a review protocol

Stage II–Conducting a review

Phase 3 - Identification of research
Phase 4 - Selection of studies
Phase 5 - Study quality assessment
Phase 6 - Data extraction and monitoring progress
Phase 7 - Data synthesis

Stage III–Reporting and dissemination

Phase 8 - The report and recommendations
Phase 9 - Getting evidence into practice
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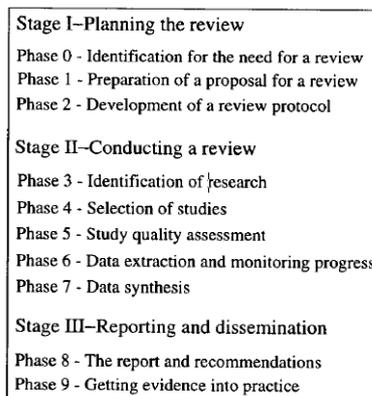
Figure 3.1 systematic literature review process (Tranfield et. Al., 2003)

A. Literature Collection Procedures

In the first stage of planning the review, according to Tranfield et. Al., 2003, search begins with the identification of keywords and search terms, which are built from the scoping study, the literature and discussions within the review team (commonly called "search strings"). Specific keywords aligned with the research questions will be used, such as "virtual fitting room," "virtual dressing room," "virtual try-on," and "augmented reality." These terms will be searched within the titles and keywords of academic journals relevant to fashion, technology, and consumer behavior. Databases such as ScienceDirect, Scopus, Proquest, and IEEE Xplore is used to find academic journals, conference proceedings, and other scholarly publications.

The second stage is conducting a review. This stage begins with phase 3, identification of research. Inclusion and exclusion criterion are predefined for identification of the data sources (Ghadge et al., 2012). Only studies that meet all the inclusion criteria specified in the review protocol and which manifest none of the exclusion criteria need be incorporated into the review (Tranfield et. Al., 2003). This stage will be covered in article selection criteria and our list of inclusion and exclusion criteria will be listed.

To reduce human error and bias, systematic reviews employ data-extraction forms, and these often contain general information (title, author, publication details (Tranfield et. Al., 2003). The data that we conducted will extract study's geographic, methodology, and outcome variable/outcome.

Then, the journals will be synthesized. Research synthesis is the collective term for a family of methods for summarizing, integrating, and, where possible, cumulating the findings of different studies (Tranfield et. Al., 2003). The selected studies will be critically evaluated and thematically analyzed to identify key findings and recurring patterns.

Finally, on stage III of reporting and dissemination. According to Tranfield et. Al., 2003, A good systematic review should make it easier for the practitioner to understand the research by synthesizing extensive primary research papers from which it was derived. The first would provide full 'descriptive analysis' of the field. In this stage we answer our research questions and make an interpretation of the findings.

B. Article Selection Criteria

This SLR is strictly selecting a trustworthy journal publisher online, our selection mode begins with finding a journal that is relevant to the goal we want to achieve. To limiting the confusion and for the sake of narrowing down the scope of journal, we only reviewed one specific type of paper, which is research papers. To find this research papers, we chose well known databases such as Emerald Insight, Science Direct, Springer Link, ProQuest, IEEE Explore, Atlantis Press, Sciendo, Research Gate and another credible journal provider. After we extract the potential journals, the next step is defining the inclusion and exclusion criteria to ensure the credibility of research article selected are able to fill our research question. The criteria are as listed below:

Inclusion Criteria:

1. The journal papers are presented as a full text edition
2. The journal paper contains keywords that align with the research aims.
3. The journal paper should be within the last 5 years of publication (2020 until 2024)
4. The journal paper has information such as country origins, research method and outcome or outcome variables.

Exclusion criteria:

1. The journal papers are delivered in language other than English
2. The journal papers are extracted from unofficial sources (BlogSpot, Wikipedia, etc.)

RESULTS AND DISCUSSION

A. Analysis of the Proposed System

The intended system is such that will help to In this study, we reviewed over 42 research journal articles, and 10 theses that are relevant with the criteria we mention above. After we analyze the content of each journal further, the remaining credible journal number is 20 (n = 20). We can see from figure 3.2 the summarized the journal provider and publication years of the selected articles. Most of the reviewed journals are published in the year of 2021 (a total of 8 journals), which is found on different journal publishers with each have one relevant journal.

The 2020 and 2023 number of journals is 4, 3 of each journal are found in the same database provider, which is emerald insight. There is also a journal that is found through IEEE for 2020, and one from Sciendo in the year of 2023. After we search on the research gate, we found one legible article publish in the year of 2022, which make it the only article that are relate to our goals. Since in the making of this literature review, (2024 may), In our surprise, there are three journals that we found in the year of 2024. Two journals from Emerald Insight, and one journal from Erasmus university.
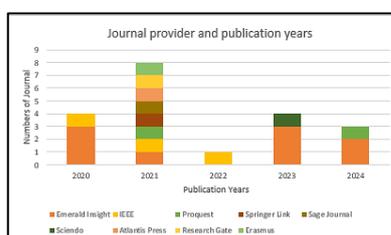
Source: figure prepared by author

Figure 3.2 Journal provider, and publication years

Table 4.1 shows the list of eligible journals for this research which contains the title of the journal, and the name of the author followed by the year of publication. This screening step resulted in 20 research article that pass our inclusion and exclusion criteria, each of the journals have a structure of research article and contains the data that we will going to extract in the next step.

There are several journals we gathered that have the same author with different publication years. We found a total of four journals from the same author under the name of Lee et al. and Lee, Xu. The journal is published on the year of 2020 (one journal) 2021 (two journals) and 2024 (three journals). There is also the same author that publish 2 eligible journals under the name of Wang et al. the first journal in 2021 and the second journal is publish on 2023, a journal collaboration with author name Zhang.

Table 4.1 Journal title, Author (year)

Journal Title	Author (year)
"E-Commerce Retail & Augmented Reality: An Exploratory Study about Virtual Fitting Room Technologies and Online Customer Experiences"	(Renée Koppens, 2021)
"Consumers' adoption of AR-based virtual fitting rooms: from the perspective of theory of interactive media effects"	(Lee, Xu, & Porterfield, 2021)
"Exploring users' adoption intention of virtual try-on apps: how users' individual characteristics affect post-use feelings"	(Hua et al., 2024)
"Fashion Consumers' Perception and Adoption of Virtual Fitting Rooms (VFRs): A Perspective of Regulatory Focus and Shopping Involvement"	(Lee, Xu, Porterfield, et al., 2021)
"The Impact of Virtual Fitting Room Technology on Consumers' Online Purchase Intention"	(Wang et al., 2021)
"What drives customers to use virtual fitting rooms? The moderating effect of fashion consciousness"	(Zhang & Wang, 2023)
"A Cost-Efficient Approach for Creating Virtual Fitting Room using Generative Adversarial Networks (GANs)"	(Attallah et al., 2024)
"An Enhance Virtual Fitting Room using Deep Neural Networks"	(I. C. S. Ileperuma et al., 1 C.E.)
"Do augmented and virtual reality technologies increase purchase intention?: The role of cognitive elaboration and shopping modes"	(Park & Kim, 2021)
"Exploring the factors influencing consumers virtual garment fit satisfactions"	(Buyukaslan et al., 2020)
"Leveraging personalization and customization affordances of virtual try-on apps for a new model in apparel m-shopping"	(Tawira & Ivanov, 2023)
"Technology visibility and consumer adoption of virtual fitting rooms (VFRs): a cross-cultural comparison of Chinese and Korean consumers"	(Lee et al., 2020)
"The Study of Virtual Fitting Room in China"	(Lu et al., 2021)
"Virtual Dressing Room: Smart Approach to Select and Buy Clothes"	(S. W. P. N. M. et al., 2021)
"Elegant Fit-On – Virtual Fitting Room on Handheld Devices"	(R. R. N. P. A. B. W. M. S. R. Galagoda et al., 1 C.E.)
"Evaluating garments in augmented reality when shopping online"	(Baytar et al., 2020)
"How augmented reality can improve e-commerce website quality through interactivity and vividness: the moderating role of	(Kim et al., 2023)

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need for touch"	
"In-home application (App) for 3D virtual garment fitting dressing room"	(Li & Cohen, 2021)
"The role of regulatory focus in consumers' adoption of virtual fitting rooms (VFRs)"	(Lee et al., 2024)
"Virtual Fitting Room and Its Potential in E-commerce"	(Mătăşel et al., 2023)

For the first extraction, we see the geographic distribution of where the study of VFR conducted by much research. The detail of the extraction and the number of journals is listed in table 4.2. The result shows a concentration of study in the United States and China, with a smaller presence in other countries. the extraction results in nine journals conducted in the USA (three journals in 2020, each have one journal from 2021,2023 and 2024).

There is a total of five research journals that take place in China (one journal from 2020, 2021, 2024, and two journals from 2023). In the country of Sri Lanka, we found two journals, publish in the year of 2020 and 2021. Lastly, one of each of our research journal is conducted in Korea, Taiwan, Romania, and Netherlands. We also found one journal from Lee et al., 2020. Have two geographic origins to conduct their research, which is in China and Korea.

Table 4.2 Country origin, counts, author (year)

Country Origin	Number of Journals	Author (year)
USA	9	Buyukaslan et al., 2020; Baytar et al., 2020; Attallah et al., 2024; Lee et al., 2020; Li & Cohen, 2021; Kim et al., 2023; Park & Kim, 2021.
China	5	Hua et al., 2024; Lu et al., 2021; Lee et al., 2020; Zhang & Wang, 2023; Tawira & Ivanov, 2023.
Sri Lanka	2	S. W. P. N. M. ET AL., 2021; R. R. N. P. A. B. W. M. S. R. Galagoda et al., 1 C.E.; I. C. S. Ileperuma et al., 2020
Korea	1	Lee et al., 2020.
Taiwan	1	Wang et al., 2021
Romania	1	Mătăşel et al., 2023
Netherlands	1	Renée Koppens, 2021

The second extraction is for finding research method, numbers of journals, and the list of authors and their publishing years. The detail of this extraction can be seen in table 4.3. the most common method is experiment, and followed by online survey questionnaires, the remaining journals conducted with focus group discussion and interviews. We found a total of 11 research article that have a method of experiment (three journals from 2020 & 2021, one journal from 2022and two journals from 2023 & 2024). A total of 9 journals uses a method of survey questionnaires (two journals from 2020, three journals from 2021 & 2023, and one journal from 2021), all of the questionnaires conducted online. For the method of focus group discussion (in the year of 2020) and interviews (in the year of 2021), we found one journal each. However, we also found

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several journals that have multiple kind of method. For example, journal from Hua et al., 2024 and Kim et al., 2023 have two methods, first they conducted a survey questionnaire, and followed by experiment. One journal from Lee et al., 2020 has online survey as their method and followed by focus group discussion.

Table 4.3 Research method, numbers of journals, author (year)

Research Method	Number of Journals	Author (year)
Experiment	11	Buyukaslan et al., 2020; Hua et al., 2024; Baytar et al., 2020; Attallah et al., 2024; Li & Cohen, 2021; S. W. P. N. M. ET AL., 2021; Kim et al., 2023; R. R. N. P. A. B. W. M. S. R. Galagoda et al., 2022.; Mătăşel et al., 2023; I. C. S. Ileperuma et al., 2020; Park & Kim, 2021
Survey Questionnaires	9	Hua et al., 2024; Lu et al., 2021; Lee et al., 2020; Zhang & Wang, 2023; Lee et al., 2020; Li & Cohen, 2021; Wang et al., 2021; Kim et al., 2023; Tawira & Ivanov, 2023;
Focus Group Discussion	1	Lee et al., 2020
Interviews	1	Renée Koppens, 2021

The last extraction for our study is for seeking variable outcome, number of journals, and the author with the year of journal publication. This is the most important extraction, because we can be able to see the results of each journal that cover the topic of Virtual Fitting Room and synthesize the results into generating our research GAP and future studies.

We can see the result of extraction in table 4.4. Result shows usage intention / adoption is the most chosen variable outcome of researchers. We found eight journals that have a usage intention / adoption as their outcome (one journal from 2020 & 2021, two journals from 2023, and one journal from 2024). The second used variable income researchers decide is VFR system. This variable outcome resulted in system or prototype for making VFR which can be implemented and develop into real VFR application or machine. The number of journals that have outcome variable as VFR system are five journals, two journals from 2020, one journal from 2021, 2022 & 2023. Purchase intention is next usage intention / adoption and VFR system as most used variable outcome. The total of four journals recorded, respectively are one journal from 2020, & 2023, and two journals from 2021. There are two journals that resulted in generating VFR application in the year of 2024 and 2021. The last one journal resulted in customer emotion, this outcome variables capture the emotion or reaction of customers when it comes to using VFR for accommodating their shopping experience.

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Table 4.4 Variable outcome, numbers of journals, author (year)

Variable Outcome	Number of Journals	Author (year)
Usage Intention/ Adoption	8	Hua et al., 2024; Lee et al., 2020; Zhang & Wang, 2023; Park & Kim, 2021; Tawira & Ivanov, 2023;
Purchase Intention	4	Baytar et al., 2020; Lu et al., 2021; Wang et al., 2021; Kim et al., 2023
Application	2	Attallah et al., 2024; S. W. P. N. M. ET AL., 2021
VFR System	5	Buyukaslan et al., 2020; Li & Cohen, 2021; R. R. N. P. A. B. W. M. S. R. Galagoda et al., 2022; Mătăşel et al., 2023; I. C. S. Ileperuma et al., 2020.
Customer Emotion	1	Renée Koppens, 2021

B. Geographic Distribution of VFR research

The distribution of research on Virtual Fitting Rooms (VFR) across the globe reveals a significant concentration in the United States and China. As shown in Table 4.2, nine out of the listed studies originated in the USA, with five from China. This is in stark contrast to the limited research presence in other countries, with only two journals each from Sri Lanka and one journal each from Korea, Taiwan, Romania, and the Netherlands. Interestingly, a single study by Lee et al. (2020) appears to have been conducted collaboratively between China and Korea.This geographic disparity in VFR research can be attributed to several potential factors. The United States and China might have a larger pool of researchers interested in developing VFR technology. Additionally, these countries might have a greater chance of securing funding for VFR research endeavors. According to Ali et al. (2023), the USA and China are often at the forefront of financially supporting technological advancements.

Another possibility is that the larger youth populations in the USA and China, with their potential interest in fashion trends, could fuel a growth in VFR research. This youthful demographic might incentivize researchers to explore VFR as a potential business innovation, as suggested in [insert citation about youth and fashion trends]. A larger youth population could also provide a wider pool of potential VFR technology users, making the implementation commercially attractive.

The table also reveals a concentration of VFR research in Asian countries (USA, China, Sri Lanka, Korea, and Taiwan). This could be interpreted as an initial focus on developing VFR technology within prominent Asian fashion hubs. China, Korea, Sri Lanka, and Taiwan are all recognized for their trendsetting fashion industries [insert citation about fashion hubs in Asia]. However, the presence of research from Romania and the Netherlands suggests that European countries are also beginning to explore the potential of VFR in e-commerce.

An interesting detail to note is that the researchers in Sri Lanka exploring VFR's potential seem to be affiliated with computer science departments, whereas researchers in the USA appear to be approaching VFR from a fashion business model perspective. This finding, while based on a limited sample size, underscores the multifaceted nature of VFR research. It highlights the potential benefits of interdisciplinary collaboration, drawing on expertise from both computer science and fashion fields. Businesses implementing VFR technology can leverage these findings by considering various research perspectives to inform their strategies.

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The current distribution of VFR research underscores the need for further exploration on a global scale. Additional research efforts in various regions can illuminate how cultural and social factors influence VFR adoption and motivations for VFR travel. A more balanced research landscape would allow for a deeper understanding of the economic and social impacts of VFR travel across different destinations.

C.   Research methodology employed of VFR

Research methodologies employed in evaluating the contribution of virtual fitting rooms (VFRs) to the fashion industry reveals a predominance of three approaches: experiments, online surveys, and qualitative methods like focus groups and interviews. Each methodology offers unique strengths and contributes distinct insights to understanding VFRs' impact.

Experiments is the most frequently used method (11 out of 20 journals) is experimentation. Experiments allow researchers to create controlled environments where variables like VFR design or user experience can be manipulated to observe their impact on user behavior or purchasing decisions. For instance, studies by Hua et al. (2024) and Kim et al. (2023) likely utilized experiments to assess how different VFR features influenced user satisfaction or purchase intention. Through controlled settings, experiments provide strong evidence of cause-and-effect relationships between VFRs and specific user outcomes. We can say that Experiments provide strong evidence of cause-and-effect relationships.

We found Online surveys (9 journals) as one of the most used methods. This method offers a cost-effective way to gather data from a large sample of participants. Researchers can use surveys to gauge consumer attitudes towards VFR technology, identify usage patterns, or measure user perceptions of VFR effectiveness. Studies in 2020, 2021, and 2023 likely employed surveys to capture a broad range of user experiences and opinions on VFRs. Surveys provide generalizable insights into user sentiment and behavior; this may be one of the sources to be paying attention when it comes to implementing VFR on businesses.

Qualitative Methods used in the journal we found is Focus groups (1 journal) and interviews (1 journal) this method provide valuable insights into user motivations, preferences, and thought processes regarding VFRs. Lee et al. (2020) potentially used focus groups to explore user experiences and gather in-depth feedback on VFR design or usability. Qualitative methods offer rich, detailed information about user perspectives, but their findings may not be easily generalizable to a larger population.

The use of mixed methodologies, as seen in studies by Hua et al. (2024), Kim et al. (2023), and Lee et al. (2020), further strengthens the research by combining the advantages of different approaches. For instance, an initial online survey might identify broad trends in user behavior, followed by an experiment to test specific hypotheses based on the survey findings. By employing a combination of methodologies, researchers can gain a more comprehensive understanding of the multifaceted impact of VFRs on the fashion industry. When used strategically, either individually or in combination, these methodologies can illuminate the evolving role of VFR technology within the fashion clothing industry.

D.   Key areas of contribution of VFR research

An analysis of research outcomes in Virtual Fitting Room (VFR) studies (Table 4.4) reveals several key areas of contribution that are shaping the future of online shopping experiences within the fashion industry. The first one is Understanding User Adoption. The most prominent area of research focuses on user adoption and purchase intention in relation to VFR technology (8 journals). Studies by Park & Kim (2021), Zhang & Wang (2023), and others explore factors influencing user willingness to adopt VFRs and how VFRs can influence purchasing decisions. This research is crucial for businesses developing VFR applications, as it helps identify features and functionalities that encourage user engagement and conversion.

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VFR System Development is the next key area of research. This delves into VFR system development (5 journals). Studies like Buyukaslan et al. (2020) and Mătăşel et al. (2023) focus on creating or improving VFR systems and prototypes. This research is vital for advancing VFR technology itself. By exploring different system designs and functionalities, researchers can pave the way for more robust, user-friendly, and effective VFR applications.

The third one is Examining Customer Experience. A growing area of research examines customer experience with VFRs (4 journals). Studies by Lu et al. (2021) and Wang et al. (2021) explore user perceptions and emotional responses to VFR technology. Understanding how VFRs impact user satisfaction and emotional state is important for businesses to create a positive and engaging shopping experience. After all, a positive user experience can lead to increased customer loyalty and brand advocacy.

Limited Focus on Customer Emotions I ur study is also important to note a gap in the research on customer emotions. Only one study (Renée Koppens, 2021) directly investigates this variable. Further research in this area can provide valuable insights into the emotional factors that VFR research influence user adoption and experience of VFR technology.

Our study also finds Geographic Disparity in Research Focus as the outcome variables. The analysis also highlights a geographic disparity in research focus. While the USA tends to focus on the societal impact of VFRs, research from Sri Lanka (Galagoda et al., 2022) dives into VFR system applications. Chinese researchers seem more interested in customer perception and experience, although purchase intention remains a significant area of investigation (e.g., Kim et al., 2023). This points to a need for more balanced research efforts across different regions to gain a more comprehensive understanding of VFR's impact on a global scale.

E. Findings

The goal of this SLR was to analyze current fashion research on Virtual Fitting Rooms (VFR) to arrive at the contemporary stage. The analysis yielded several key findings across three main areas: the area of geographic distribution of VFR research, particular research methodologies explored, and critical fields of contribution impelled by the previous studies undertaken.

The research reveals that geographic distribution differs in a very significant way with the studies of Very Frequent Researchers (VFR). United States and China could qualify as two major players with a little presence elsewhere. This even has drawn our attention towards the need of world research program to study, every VFR adoption and how it affects on individual's cultures, and different communities.

For Research Methodologies that we study, the review identified three primary research methodologies used to evaluate VFRs: experiments, online surveys, and the qualitative methods. Researchers rely on experiments as a validating method that demonstrate causal links, while surveys can get representative data of users' attitudes or behavior. Qualitative techniques for example, focus groups and interviews during research offer a sense of depth which otherwise cannot be obtained but are limited in the generalizability aspect as well. The judicious employment of these strategies makes for stronger research by taking advantage of the unique qualities each method has.

The Particular Attributes of the Research on VFR have contributed to observably the same key areas, as well. Knowing about the consumption-related behavior and buying intention is a key factor of research activity, with experts examining various substantial criteria influencing a user' intension in implanting VFR technology in the activities of their lives. Alongside this, research resolves into VFR system, being development of VFR system function as well as application. User experience is a field that is growing in popularity and numerous researchers examine user perceptions and satisfaction besides the emotional consequences of VFRs. Yet, there is a lack of information on how consumers feel, whereby the necessity of more research in this direction is urgently needed.

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All in all, the SLR will help us to gain more information on the condition of the current VFR research and what the future field is lacking. Balanced research both regionally as well as an introspection into the feelings of the consumers coupled with the prospects of VFR technology to revolutionary the online shopping for fashion in globally will allow the co-operation of VRF technology in the online shopping experience for fashion consumers globally.

CONCLUSION

This SLR gave evidence that VFR research made three noteworthy contributions to the fashion industry. The first contribution of this research, which was revealed in the UA section, is on User Adoption. Research showed factors that could influence user adoption and purchase intention with VFR technology. Knowing this important information provides the development team with features that could help encourage user engagement and conversion, eventually boost the sale of their product.

The other contribution and conclusion is that: the VFR System Development VFR task is an ongoing research effort to improve VFR functionalities and applications for better online shopping experience. Comparing and designing different systems provide a variety of system designs, and shed lights on more robust, user-friendly and effective VFR technology for better online experience.

The final one is Measuring Customer Experience. A growing body of research attempts to measure user experience with respect to VFRs.Understanding how VFRs impact the experience of users in terms of satisfaction and emotional response could improve the shopping experience for them, which could in turn boost customer loyalty and brand advocacy towards the business.

RECCOMENDATIONS

Research conducted through this SLR has shown that there are multiple paths for future research in the field of VFRs in fashion industries. The next element for future work would involve finding potential causes why research in VFR literature is mostly clustered. But the results which are presented here leave an implication that the other regions in the world need to conduct more research on the VFR journey. This would help to build a more complete picture of the significant influence that these are learnt to be.

The fourth part should explore how emotions affect the users' adoption and experience of the product. Getting to know the VFR Implications on User Emotions Provides us with Smart Data to Help Our Businesses. Using VFR to evoke positive feelings and to boost brand people like to shop online, companies can have an affect more engaging and satisfying on fashion consumers.

The global focus on conducting research across distinct areas of the planet would permit the observation of how societal and cultural factors can condition the process of incorporating VFR into various demographic groups in different parts of the planet. Through this, VFR will get a better picture of practical impact of VFR on online purchasing and its about to revolutionize how online shoppers use their computer for fulfilling their needs.

The report showed some differences between the researchers in Sri Lanka who see VFRs as a software perspective and the USA, which focuses on fashion design, demonstrating the potential of multidisciplinary collaboration. Such a synergistic of all the talents and skills in computer science and fashion will boost the roll out of VFR and ensure success in the implementation process. The collaboration will make sure VFR technology is not only competent but also considers customers feelings and experience while they are shopping at an online fashion store.

Corresponding Author : Afina Hasya

BIBLIOGRAPHY

Ali, N., Phoungthong, K., Khan, A., Abbas, S., Dilanchiev, A., Tariq, S., & Sadiq, M. N. (2023). Does FDI foster technological innovations? Empirical evidence from BRICS economies. PLOS ONE, 18(3), e0282498. https://doi.org/10.1371/journal.pone.0282498

Attallah, K., Zaky, G., Abdelrhim, N., Botros, K., Dife, A., & Negied, N. (2024). A Cost-Efficient Approach for Creating Virtual Fitting Room using Generative Adversarial Networks (GANs). International Journal of Advanced Computer Science and Applications, 15(1). https://doi.org/10.14569/IJACSA.2024.0150132

Batool, R., & Mou, J. (2023). A systematic literature review and analysis of tryon technology: Virtual fitting rooms. Data and Information Management, 100060. https://doi.org/10.1016/j.dim.2023.100060

Baytar, F., Chung, T., & Shin, E. (2020). Evaluating garments in augmented reality when shopping online. Journal of Fashion Marketing and Management: An International Journal, 24(4), 667–683. https://doi.org/10.1108/JFMM0520180077

Bazaki, E., Wanick, V., Bazaki, E., & Wanick, V. (2019, June 19). Unlocking the Potential of the Salesperson in the Virtual Fitting Room: Enhancing the Online Retail Experience for Fashion Brands. Eprints.soton.ac.uk; Academy for Design Innovation Management. https://eprints.soton.ac.uk/432242/

Beck, M., & Crié, D. (2018). I virtually try it … I want it ! Virtual Fitting Room: A tool to increase online and offline exploratory behavior, patronage and purchase intentions. Journal of Retailing and Consumer Services, 40, 279–286. https://doi.org/10.1016/j.jretconser.2016.08.006

Buyukaslan, E., Baytar, F., & Kalaoglu, F. (2020). Exploring the factors influencing consumers' virtual garment fit satisfactions. Research Journal of Textile and Apparel, 24(4), 375–388. https://doi.org/10.1108/RJTA0320200029

Ghadge, A., Dani, S., & Kalawsky, R. (2012). Supply chain risk management: present and future scope. The International Journal of Logistics Management, 23(3), 313–339. https://doi.org/10.1108/09574091211289200

Ghodhbani, H., Neji, M., Razzak, I., & Alimi, A. M. (2022). You can try without visiting: a comprehensive survey on virtually tryon outfits. Multimedia Tools and Applications, 81(14), 19967–19998. https://doi.org/10.1007/s11042022128026

Hua, W., Liu, Y., Zhang, Z., Li, M., & Yu, X. (2024). Exploring users' adoption intention of virtual tryon apps: how users' individual characteristics affect postuse feelings. Asia Pacific Journal of Marketing and Logistics, aheadofprint(aheadofprint). https://doi.org/10.1108/APJML0920230920

I. C. S. Ileperuma, H. M. Y. V. Gunathilake, K. P. A. P. Dilshan, S. A. D. S. Nishali, Gamage, A. I., & Y. H. P. P. Priyadarshana. (1 C.E.). An Enhanced Virtual Fitting Room using Deep Neural Networks. 2020 2nd International Conference on Advancements in Computing (ICAC), 1, 67–72. https://doi.org/10.1109/ICAC51239.2020.9357160

Kim, S., Park, H., & Kader, M. S. (2023). How augmented reality can improve ecommerce website quality through interactivity and vividness: the moderating role of need for touch. Journal of Fashion Marketing and Management: An International Journal, 27(5), 760–783. https://doi.org/10.1108/JFMM0120220001

Lavoye, V., Sipilä, J., Mero, J., & Tarkiainen, A. (2023). The emperor's new clothes: selfexplorative engagement in virtual tryon service experiences positively impacts brand outcomes. Journal of Services Marketing, 37(10), 1–21. https://doi.org/10.1108/JSM0420220137

Lee, H., Xu, Y., & Li, A. (2020). Technology visibility and consumer adoption of virtual fitting rooms (VFRs): a cross. Journal of Fashion Marketing and Management: An International Journal, 24(2), 175–194. https://doi.org/10.1108/JFMM0120190016

Lee, H., Xu, Y., & Porterfield, A. (2021). Consumers' adoption of ARbased virtual fitting rooms: from the perspective of theory of interactive media effects. Journal of Fashion Marketing and Management: An International Journal, 25(1), 45–62. https://doi.org/10.1108/JFMM0520190092

Lee, H., Xu, Y., & Porterfield, A. (2024). The role of regulatory focus in consumers' adoption of virtual fitting rooms (VFRs). Journal of Fashion Marketing and Management: An International Journal, aheadofprint(aheadofprint). https://doi.org/10.1108/JFMM0620230141

Lee, H., Xu, Y., Porterfield, A., Jin, B. E., Leonas, K. K., Roise, J., & Porterfield, J. (2021). Fashion Consumers' Perception and Adoption of Virtual Fitting Rooms (VFRs): A Perspective of Regulatory Focus and Shopping Involvement. In ProQuest Dissertations and Theses (No. 28445114, North Carolina State

Corresponding Author : Afina Hasya

University; p. 132). ProQuest Dissertations & Theses Global. https://www.proquest.com/dissertations-theses/fashion-consumers-perception-adoption-virtual/docview/2581405160/se-2?accountid=49069

Li, C., & Cohen, F. (2021). Inhome application (App) for 3D virtual garment fitting dressing room. Multimedia Tools and Applications, 80(4), 5203–5224. ABI/INFORM Collection; Research Library. https://doi.org/10.1007/s1104202009989x

Lu, M., Chen, S., Lin, H., & Li, Y. (2021). The Study of Virtual Fitting Room in China. Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021), 609–616. https://doi.org/10.2991/assehr.k.211209.101

Mătăşel, A., Avadanei, M., Talpa, A., & Loghin, C. (2023). Virtual Fitting Room and Its Potential in ECommerce. In The 18th Romanian Textiles and Leather Conference (pp. 210–215). Gheorghe Asachi Technical University Iasi. https://doi.org/10.2478/9788367405133033

Park, H., & Kim, S. (2021). Do Augmented and Virtual Reality Technologies Increase Consumers' Purchase Intentions? The Role of Cognitive Elaboration and Shopping Goals. Clothing and Textiles Research Journal, 41(2), 91–106. https://doi.org/10.1177/0887302X21994287

R. R. N. P. A. B. W. M. S. R. Galagoda, E. H. N. L. Gunarathne, K. A. D. Maheshi Purnima, H. P. C. S. Wickramarathna, S. Reyal, & S. Siriwardana. (1 C.E.). Elegant FitOn – Virtual Fitting Room on Handheld Devices. 2022 4th International Conference on Advancements in Computing (ICAC), 180–185. https://doi.org/10.1109/ICAC57685.2022.10025242

Renée Koppens. (2021). ECommerce Retail & Augmented Reality. An Exploratory Study about Virtual Fitting Room Technologies and Online Customer Experiences. http://hdl.handle.net/2105/60663

S. W. P. N. M., W., R. M. D. D., R., L. G. I., S., H. S. D. N., G., Wijendra, D. R., & De Silva, D. I. (2021). Virtual Dressing Room: Smart Approach to Select and Buy Clothes. 2021 3rd International Conference on Advancements in Computing (ICAC), Vol. 44 No. 4 (2023)(Vol. 44 No. 4 (2023)). https://doi.org/10.1109/icac54203.2021.9671198

Sunan, R. S., Christopher, S., Salim, N., Anderies, & Chowanda, A. (2023). Feasible Technology for Augmented Reality in Fashion Retail by Implementing a Virtual Fitting Room. 8th International Conference on Computer Science and Computational Intelligence (ICCSCI 2023), 227, 591–598. https://doi.org/10.1016/j.procs.2023.10.562

Tawira, L., & Ivanov, A. (2023). Leveraging personalization and customization affordances of virtual tryon apps for a new model in apparel mshopping. Asia Pacific Journal of Marketing and Logistics, 35(2), 451–471. https://doi.org/10.1108/APJML0920210652

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. British Journal of Management, 14(3), 207–222. https://doi.org/10.1111/1467-8551.00375

Wang, Y., Kang, M. J., & Zhang, W. (2021). The Impact of Virtual Fitting Room Technology on Consumers' Online Purchase Intention. Global Fashion Management Conference, 2, page 23-25(1), 317–317. https://doi.org/10.15444/gfmc2021.05.03.01

Xi, N., & Hamari, J. (2021). Shopping in virtual reality: A literature review and future agenda. Journal of Business Research, 134, 37–58. https://doi.org/10.1016/j.jbusres.2021.04.075

Zhang, W., & Wang, Y. (2023). What drives customers to use virtual fitting rooms? The moderating effect of fashion consciousness. Journal of Fashion Marketing and Management: An International Journal, aheadofprint(aheadofprint). https://doi.org/10.1108/JFMM0420230099

Corresponding Author : Afina Hasya