

A systematic literature review and analysis of try-on technology: Virtual fitting rooms



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ABSTRACT

To enhance customer satisfaction and transform negative perceptions of online apparel shopping, fashion brands are increasingly adopting virtual fitting rooms. Despite clothing being the most frequently purchased item online, customers often struggle to find garments that fit their size and skin tone. Consequently, the clothing industry experiences a higher return rate compared to other e-commerce sectors. To address this issue, fashion brands prioritize the implementation of try-on technology, aiming to improve product visibility and provide sensory input. However, existing studies have yielded conflicting findings. This research aims to resolve this issue by organizing and categorizing the relevant literature. To collect related publications, scholarly databases such as Scopus, Emerald, Springer, Wiley, Science Direct, ProQuest, and IEEE Xplore were extensively searched. The investigation employed a systematic literature review strategy, with the search conducted from January 2005 to February 2023. Ultimately, eighty publications meeting the selection criteria were chosen for further review. The study classifies the literature into subfields based on publication year and region, thoroughly exploring various aspects of TOT, including theories, influencing factors, moderating, or mediating variables, outcomes, and notable findings. Based on the evaluation results, a conceptual model and research gap for TOT is proposed to guide future research in this domain, providing valuable insights for both the management and academic research communities.

1. Introduction

With 2% of the GDP, the fashion industry has a considerable impact on the world economy (Qasem, 2021a). Fashion companies now frequently use virtual fitting rooms to improve customer satisfaction and attitudes toward online shopping. Today's internet platforms, however, are unable to give customers a tangible grasp of the products (Yang & Xiong, 2019). The most frequent online purchase is clothes, but consumers have trouble finding outfits that match their size and skin tone, which results in a return rate that is 60% higher than in other e-commerce industries (Zhang, Wang, Cao, & Wang, 2019). Fashion businesses are placing a high priority on virtual try-on technology to solve this problem by enhancing product visibility and offering sensory feedback for online shopping. Consumers can use this technology to virtually try on sizes, styles, and colors by utilizing images on a computer or smartphone screen. Consumers can evaluate products and reduce associated hazards, thanks to this immersive experience (Rese, Baier, Geyer-Schulz, & Schreiber, 2017) (see Tables 9–15, Figs. 1 and 3).

Try-on technology, when used wisely and appropriately, has the

potential to revolutionize the fashion industry. First and foremost, fashion companies need to examine how try-on technology may enhance both online and offline experiences while also acknowledging its drawbacks in adoption. When introducing new technology, it is vital to consider not simply consumer and technological characteristics but also some other factors such as existing technological challenges, national cultural values, and the impact of social influence. The reason for this is that social influence factors can be incorporated into the development and application of try-on technology to better meet the requirements and expectations of users. These factors also play a big part in the acceptance of try-on technology. Comprehending the effects of social influence has the potential to greatly improve the try-on technology user experience and satisfaction, as well as its wider societal ramifications. In regard to national cultural values businesses and technology developers can customize aspects of try-on technology to meet the specific needs and preferences of customers in various nations by understanding how different cultural values impact the adoption of try-on technology. It is expected that this approach will improve customer satisfaction and engagement by offering a more customer-focused solution. Online

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shoppers can receive a comprehensive and immersive try-on encounter that can rival the traditional in-store shopping experience in every way, thanks to the challenges presented by current try-on technologies. These challenges serve as a driving force behind the creation of a digital shopping environment that excels in user experience, product diversity, and technological capabilities.

However, previous research on try-on technology has focused on consumer and technological characteristics, producing inconsistent results instead of offering a comprehensive view. Therefore, it is crucial to perform a thorough literature assessment that considers the components of national cultural values, social influence, and current technological challenges. Thus, it can be stated that present research on try-on technology has not sufficiently addressed problems such as technological issues (e.g., a lack of look comparison and sharing capability, uneven try-on goods, and limited try-on alternatives). Additionally, social influence and national cultural values have not been adequately considered. Examining these problems and potential remedies is challenging, though, because try-on technology is still in its infancy. To fill this gap, we suggest the following research questions: (1) What similarities and differences are evident in the try-on technology literature regarding regions, research methods, and topics? (2) What are the theories, frameworks, and models adopted by studies considering try-on technology? (3a) What are the key antecedents in try-on technology research? (3b) What are the key outcome variables of interest in try-on technology research? (4) What research gaps are evident within the extant literature on try-on technology?

To answer these questions, this study aims to categorize and thoroughly assess previous studies on try-on technology in marketing and information systems. Even though the literature on try-on technology is growing, it is still a relatively new field of study with a wide range of results from different research methods. These inconsistent outcomes can complicate the understanding and further research in this field. A systematic literature review is needed to complete the overview of consumer use of try-on technology. These include not just making the fashion industry's online shopping experience better and lowering the percentage of excessive returns, but also the crucial undertaking of filling in the gaps and contradictions that currently exist in the field of

try-on technology. It also aims to provide useful insights for academic research as well as the fashion business by elucidating the complex relationships among national cultural values, social influence, and existing technological challenges in the context of fashion-related technology adoption.

2. Literature review

2.1. The concept of try-on technology (TOT)

Virtual try-on technology, commonly referred to as virtual fitting rooms, was mostly considered before the year 2000 as interactive technologies (IIT) that used 3D virtual simulation techniques to offer rotational properties, mix-and-match functionality, and 3D product display (Lee & Xu, 2020). While IIT focuses on virtual visualization based on consumers, goods, and the environment, 3D virtual simulation creates virtual reality in a whole environment. Simulated 3D environments surround people with virtual models in a computer-mediated environment (Lee, Xu, & Li, 2020).

TOT is an interactive technology that is also known as Image Interactivity Technology (IIT). The purpose of this technology is to improve the overall quality of the user experience for people accessing websites online by giving them the ability to change various characteristics of the displayed background, features, distance, or other design factors. Users can obtain a great deal of information regarding a product by using TOT because it provides visual clues (Merle, Senecal, & St-Onge, 2012a). Previous studies have concentrated on three primary categories of IIT: (1) 3D (PV) product visualization, which shows products in three dimensions rather than the conventional 2D promotional images (Li, Daugherty, & Biocca, 2003); (2) mix-and-match (MM) product image (Fiore, Kim, & Lee, 2005a; Fiore & Jin, 2003), which enables users to interactively select complementary items on the screen (e.g., T-shirts, sandals, cosmetics, shorts); and (3) try-on technology interface (e.g., VFR). Both PV and MM are more complicated variants of classical product visualization. MM is an interactive tool that allows users to change product images on the screen by picking complementary things, whereas PV showcases products in 3D to replace promotional images

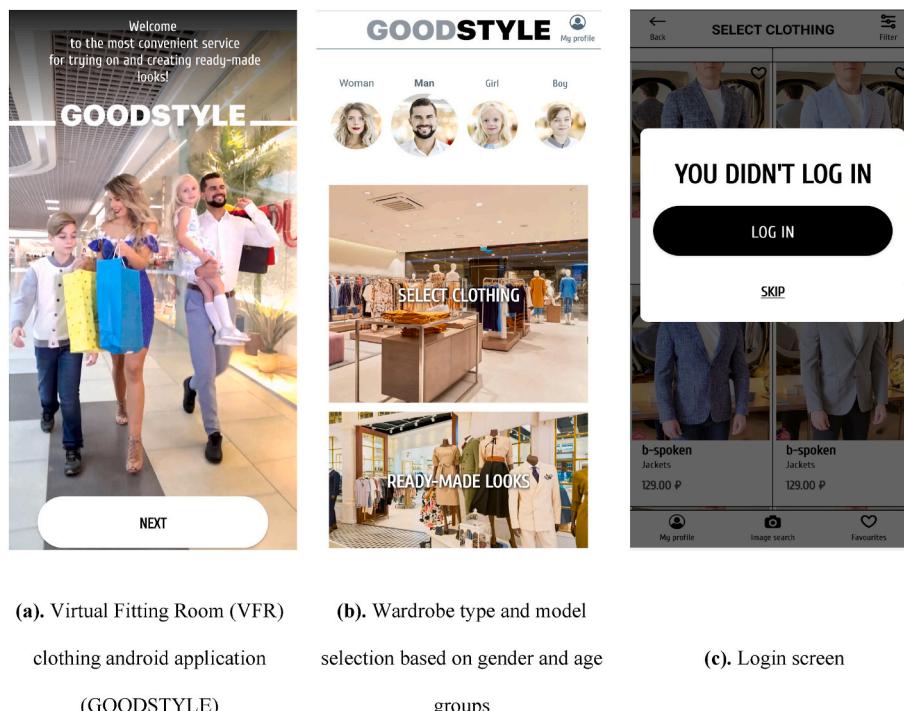


Fig. 1. Primary user interface.

that are only in 2D. An example of try-on technology is given below.

These images were obtained from a mobile application titled “Good Style,” which is available for installation from the Google Play Store.

Previous research (Jiang & Benbasat, 2004; Suh & Lee, 2005) has highlighted the importance of media richness, interaction, and vividness in IIT systems, notably in boosting users’ knowledge and perception of the website. When compared to other types of IIT, virtual fitting rooms are thought to be a higher level of technology that provides consumers with a more realistic experience by enabling them to design a 3D virtual model that closely reflects their actual body shape and size (Merle et al., 2012a). Users of PV and MM, however, are unable to alter the virtual model to match their actual bodies because they lack this feature.

Through a combination of dynamic product graphics that can be viewed from any angle, Advanced TOT enables users to conduct a thorough investigation of the product. Most earlier studies (Fiore, Kim, & Lee, 2005b; Lee, Fiore, & Kim, 2006a) concentrated on non-personalized TOT, which employed standardized virtual models, and discovered that it was more beneficial and pleasant for consumers than 2D product depiction. Recent studies, however, have switched to looking at personalized TOT, where users can build their own unique models based on their faces and body types. While some studies have stressed the enjoyment, ease of use, and usefulness of TOT (Kim and Forsythe, 2007, 2009), others have emphasized how consumers view personalized TOT favorably since it has a stronger self-congruity than the virtual model (Merle et al., 2012a). Research has demonstrated that using a 3D virtual environment has both positive and negative impacts on brand equity as compared to a 2D environment. Virtual models in TOT are like avatars in the virtual world.

2.2. Classification of virtual fitting rooms

Based on the accuracy, appeal, and engagement that these VFR technologies demonstrate, we may classify virtual fitting room into seven different categories when looking at the consumer experience. These groups represent diverse VFR capabilities, and each one offers a different strategy for improving the fitting experience for customers (Lee & Xu, 2020). An important consideration is how accurately VFRs record and depict the user’s body dimensions. Some VFRs may be exceptionally accurate, making sure that the virtual try-on closely resembles the fit

and appearance of the garment in real life. Others, on the other hand, might provide a looser picture, concentrating on giving a rough notion of how the clothing might appear (Lee, Xu, & Li, 2020).

Appeal to the eye is another important factor. Some VFR systems place a high priority on producing attractive and visually spectacular virtual representations of the user and their apparel, which improves the overall aesthetic experience (Fiore et al., 2005a). Others might place a greater emphasis on usability and provide a more straightforward but nonetheless powerful visual display. Interactivity: The level of interaction a VFR offers can have a big impact on the user experience. Users may be able to experiment with multiple styles, make real-time adjustments, and look at a range of product options using highly interactive VFRs. On the other hand, low-interactivity VFRs could provide a more passive experience with minimal user engagement (Li et al., 2003) (see Fig. 4).

The goal of all seven types of VFR solutions that have been explored is to give customers positive and fulfilling fitting experiences. However, they set themselves apart by providing differing levels of body measurement accuracy and by trying on virtual apparel. Figs. 5 and 6 list the categories and provide examples for each.

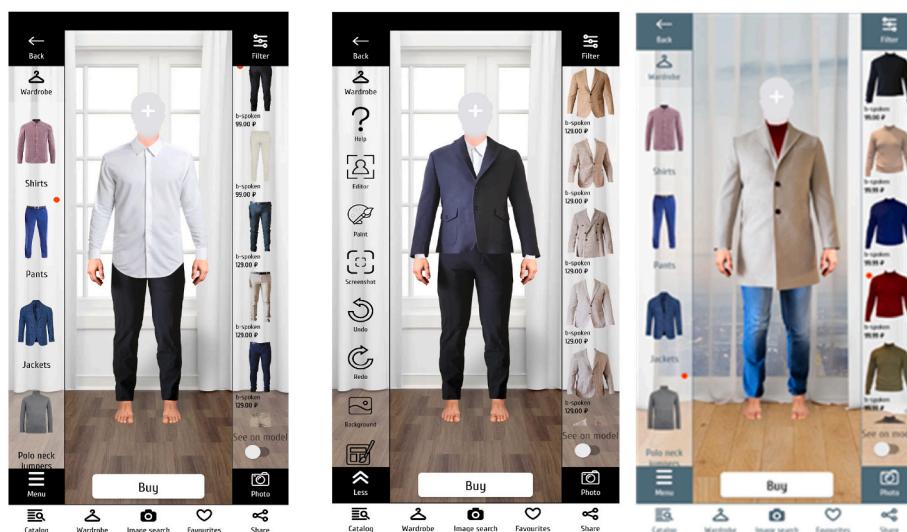
3. Research methodology

3.1. Literature search

Antman et al. (Antman, Lau, Kupelnick, Mosteller, & Chalmers, 1992); Klassen and Alejandro (Klassen & Alejandro, 1998) define an SLR as a comprehensive and organized review of all pertinent papers that satisfy criteria to address research concerns. This strategy employs a repeatable and scientific process to reduce bias in the selection and coverage of studies. The current study, which adheres to the SLR approach advised by Tranfield et al. (Tranfield, Denyer, & Smart, 2003), starts with a thorough analysis of try-on technology utilizing a clear categorization system (Mulrow, Cook, & Haynes, 1997; Nightingale, 2009).

3.2. Database selection ad search strategy

Several databases, including Scopus, Emerald, Springer, Wiley,



(a). Male model (b). Picture selection and modification (c). Dress selection

Fig. 2. Secondary user interface.

Science Direct, ProQuest, IEEE Xplore, and Web of Science, were searched for pertinent research papers to be reviewed. Together, these databases offer a wide range of scholarly and research resources covering a variety of subjects. Notably, databases like Scopus, Web of Science, and ProQuest, which are well known for their multidisciplinary coverage, greatly benefit interdisciplinary research from the broad coverage they provide. Furthermore, sites like Springer, Wiley, and Science Direct house many peer-reviewed journals with excellent research publications, making them excellent tools for literature reviews. Finding research from other academic fields is more likely when searching databases such as Scopus and Web of Science; this is particularly useful for multidisciplinary studies. Including databases from multiple publishers such as IEEE Xplore, Emerald, Springer, Wiley, and others prevents excessive dependence on the opinion of one publication and guarantees exposure to a range of viewpoints and research material. ProQuest is renowned for its theses and dissertations repository, which provides access to extensive intellectual material that is not typically found in regular journals. The emphasis on engineering, technology, and cutting-edge research in these domains makes databases like IEEE Xplore highly regarded. Citation indexes are a useful tool for constructing thorough literature assessments. They help track the influence and impact of research publications by identifying citing sources, and databases such as Scopus, Web of Science, and IEEE Xplore provide citation indexes. Researchers widely recognize these databases because of their dependability and high-quality content. The advanced search options and filters that many of these databases offer make it simpler to find the most pertinent research papers.

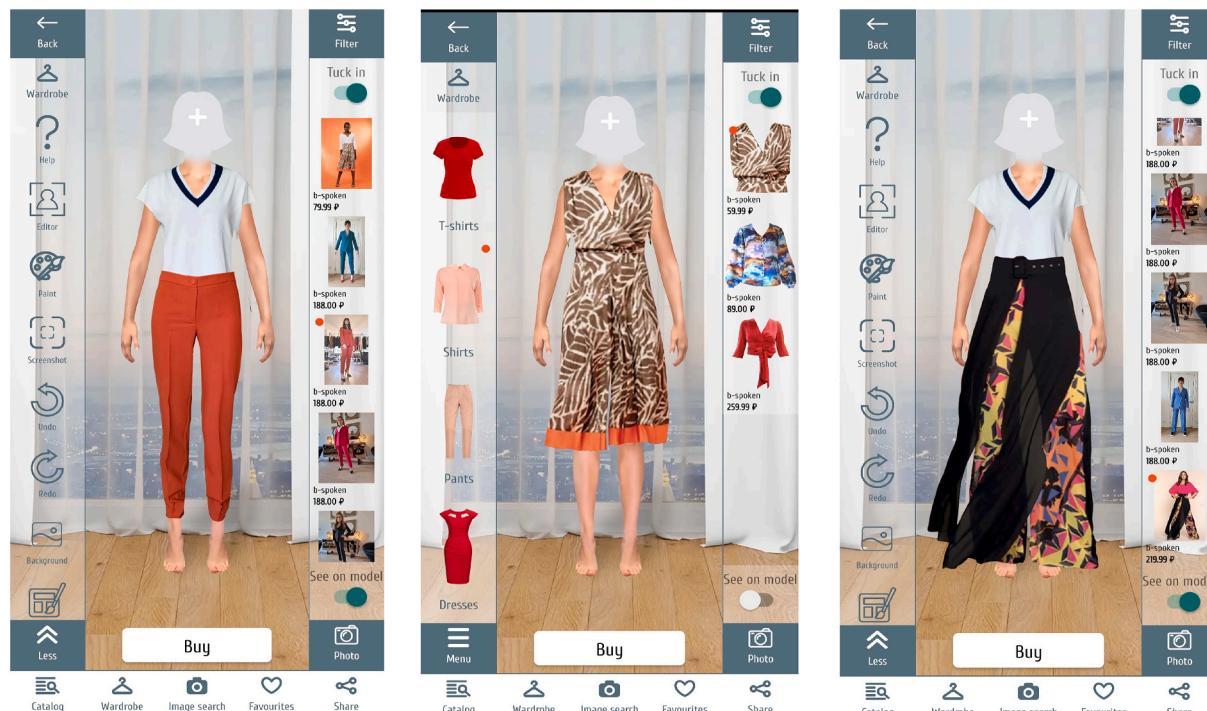
3.3. Keywords and search parameters

The terms “try-on technology,” “virtual fitting room,” “image interactivity technology,” “web interactivity,” and “virtual model” were used to identify studies pertaining to fashion try-on technology. Try-on

technology, which allows consumers to digitally try on clothes and accessories, is the main topic of this study. This term’s inclusion guarantees that the search results closely correspond with the study’s main theme. Referred to as “virtual fitting room” in academic literature and studies on the topic, it is basically the same as “try-on technology.” It expands the search parameters to include a wider range of possible academic work descriptions for this technology. Using the term “image interactivity technology” further expands the search to include the technological components of interacting with images, which is an essential part of virtual try-on technology. By adding the keyword ‘web interaction’ to the search, you can broaden your search to include try-on technology integration into websites and web apps, capturing its online aspect within the framework of virtual try-on systems. Likewise, the phrase “virtual model” is relevant since it’s commonly used in conjunction with try-on technology to show what apparel and accessories look like on the wearer. The mention of the keyword ‘virtual fitting room’s efficacy in producing pertinent results highlights its unique value in locating pertinent studies related to the study subject. To guarantee that a wide range of relevant studies are included in the search results, thereby thoroughly covering the study field, it is imperative to employ a variety of related keywords.

3.4. Study period selection and rationale

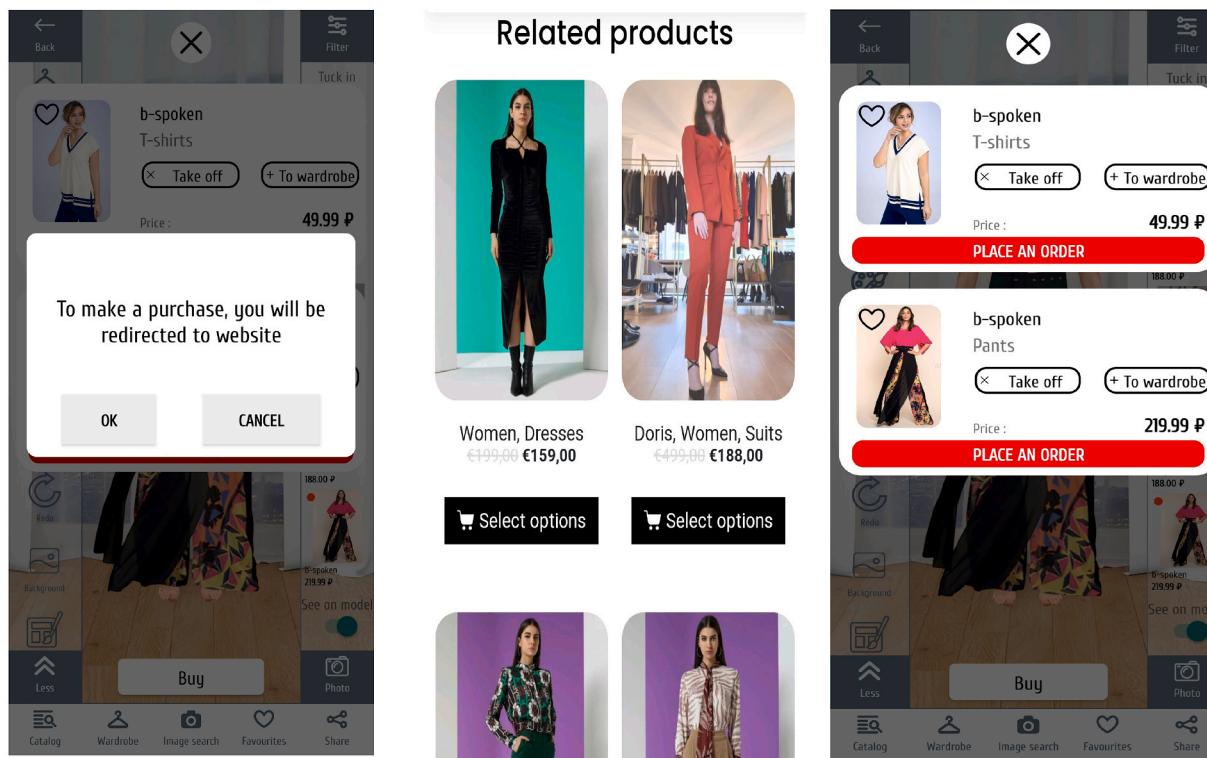
The small amount of study on try-on technology in the context of fashion led to the selection of a short publication period, from 2005 to 2023. This time frame was taken into consideration for the review because the debut of try-on technology in 2005 did not receive considerable attention until 2010 (Lee, Xu, & Porterfield, 2021a). The final search was conducted from January 2005 to February 2023, and a review methodology that entailed establishing preliminary inclusion and exclusion criteria was then followed. The goal was to assess and characterize each pertinent study through critical analysis (Marikyan,



(a). Female model

(b). Picture selection and (c). Dress selection

Fig. 3. Secondary user interface.



(a). Redirected to website for purchase

(b). Related products

(c). Place an order

Fig. 4. Tertiary user interface.

Papagiannidis, & Alamanos, 2019).

3.5. Target demographic: younger generations

Young people are more inclined to quickly adopt new technologies, showing a higher level of tech knowledge and a desire to experiment with cutting-edge digital applications. As a result, they become an obvious choice as a target market for the adoption of ground-breaking try-on solutions. Younger generations show a greater interest in fashion and place a higher value on personal style and self-expression. Virtual fitting rooms and augmented reality clothing apps, for example, tie in perfectly with their need to learn about new fashion options and trends. Additionally, younger consumers place a high value on convenience and customized experiences. They can easily picture how different clothing items and cosmetic products would look on them, enabling them to make more educated shopping decisions, thanks to try-on technology. Additionally, a large portion of the younger generation enjoys gamified experiences. Gamification components are regularly incorporated into try-on technology, adding fun and engagement to the product-trying process. This might greatly improve the general shopping experience for people in this age bracket.

3.6. Evaluation criteria for chosen publications

Ultimately, 80 publications that met our requirements were chosen for evaluation. A description of the method for finding and choosing articles is shown in Fig. 7. The facts of each study, including the year and location of the study, the research techniques, hypotheses, antecedents, moderators or mediators, and TOT consequences, were documented at the reporting and dissemination stages.

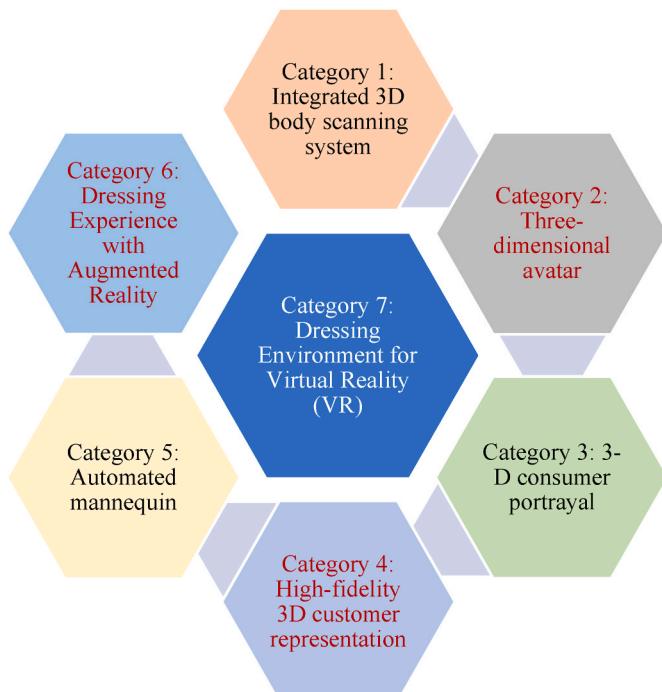


Fig. 5. Categories of virtual fitting rooms.



Fig. 6. Categories of virtual fitting room (attributes and examples).

4. Findings

4.1. Similarities and differences regarding years and regions

With growth noted from 2017 onwards, Fig. 8 shows a growing trend in the number of try-on technology studies in the setting of the virtual fitting room, indicating an expanding study topic. Most of the studies (29 out of the 80) that were chosen were carried out in the United States, followed by China with 14 papers, India with 7 papers, and South Korea with 7 papers. Other nations or regions that submitted one to three papers each were Turkey, France, Sweden, Italy, Germany, Taiwan, Finland, Spain, Portugal, Canada, Jordan, Singapore, Japan, and Tunisia. Most studies were published in the USA, with the earliest appearing in 2014. Most of the articles were published between 2019 and 2023. According to Table 2, the USA generally has the biggest number of studies, whereas other Asian and European nations' participation is relatively low (see Fig. 9) (see Table 3).

4.2. Similarities and differences regarding methodologies employed

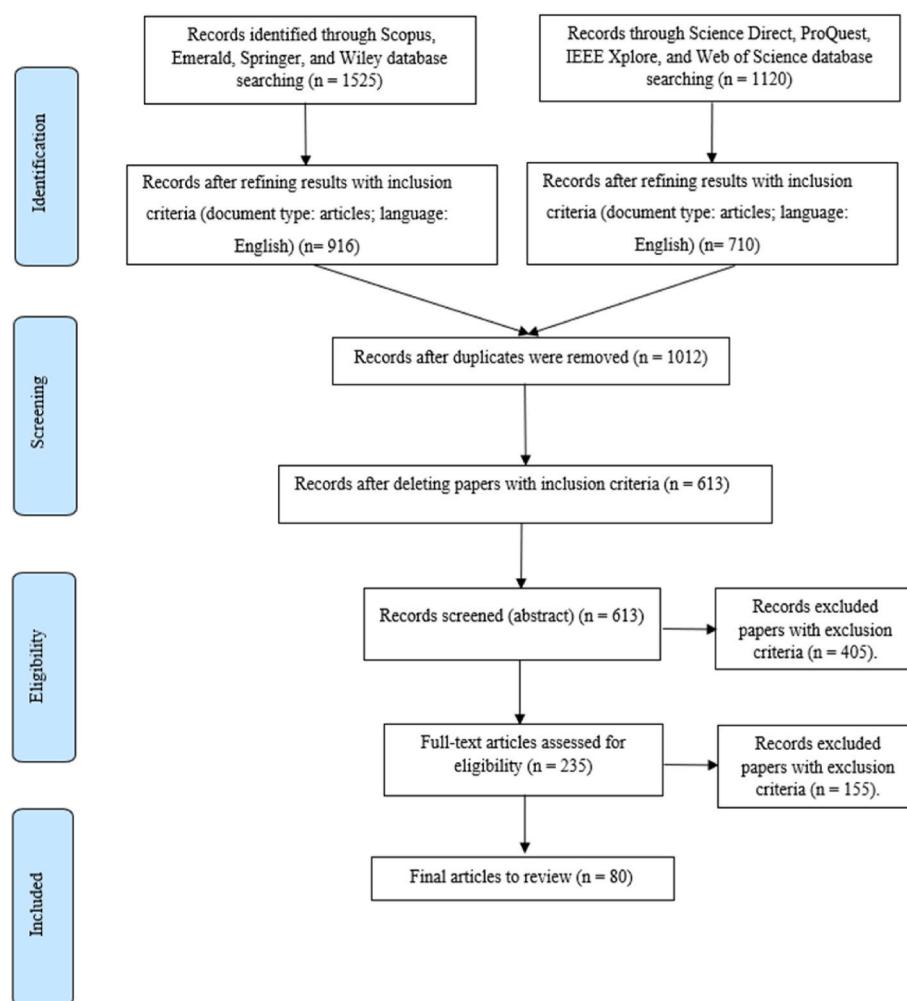
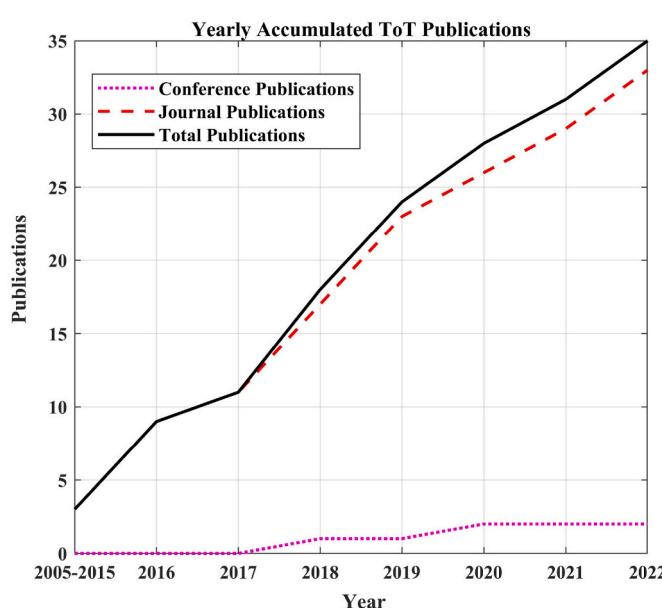
After classifying the studies, it was discovered that most of the research on try-on technology is quantitative, with surveys and experiments being the most employed methodologies. Longitudinal studies were less often used than cross-sectional surveys. This method was thought to be better suited for analyzing how people interact with try-on technology. A backward translation method was employed in several studies carried out in non-English-speaking nations without disclosing the translated version of the measurement scale. To establish construct validity and allow comparisons between studies, the translation must be reported. Construct validity problems may arise if the translated measuring scales are not standardized.

4.3. Theories, frameworks, and models adopted by existing studies of try-on technology

The primary theories cited in research on try-on technology are presented in Table 4. The stimuli-organism-response and technology acceptance models were commonly used, along with other ideas, across different theoretical views. Davis et al. (Davis, Bagozzi, & Warshaw, 1992) initially developed the TAM to assess the adoption of new information technology because attributes like perceived ease of use and perceived usefulness have an impact on technology adoption attitudes. On the other hand, the S-O-R framework proposed by Mehrabian and Russell (Mehrabian & Russell, 1974) describes that environmental stimuli can influence consumers' internal assessments and result in behavioral reactions. Results revealed that theories (SOR and TAM) are mostly used due to their strong empirical foundation and strong scientific support. Because they offer a solid framework for comprehending and illuminating events, researchers frequently favor theories that have empirical research backing. Furthermore, research publications, particularly in disciplines like psychology, sociology, and management, embrace these theories because of their propensity to produce useful solutions to real-world problems. Researchers may choose theories that offer insightful solutions to real-world issues.

4.4. Key antecedents of try-on technology

According to previous research, there are 100 precursors to try-on technology. These can be classified as technological characteristics or consumer characteristics. In addition to these antecedents, mediators, moderators, and outcome variables must also be considered. This section classifies and defines each antecedent. These antecedents are listed in Tables 5 and 6, and they are defined in Table 7.

**Fig. 7.** Article selection and retention process.**Fig. 8.** Yearly accumulated try-on technology publications.

4.4.1. Basis for the classification (technological characteristics)

These aspects can be categorized as technological attributes because of their inherent connection to technology and their influence on the user's experience when using a virtual fitting room or similar technological tools (see Table 8). Now, let us explore how each aspect might be justified as a technological trait.

4.4.2. Basis for the classification (consumer characteristics)

These aspects have a direct bearing on the way consumers view and interact with goods, services, and technologies. These characteristics are the result of consumer attitudes, behaviors, and decisions, and they have a big impact on how consumers evaluate and use a variety of goods and technologies. Now, let us explore how each aspect might be justified as a consumer trait.

4.5. Key antecedents: technological characteristics

There is inconsistency in the results of different studies when it comes to try-on technology. The most often studied aspects, in addition to their assessments of the technology's features, are the level of image interaction technology, virtual try-on technology, virtual substance qualities, return policies, and more.

Extant literature has investigated the relationship between try-on technology and its technological characteristics by utilizing a variety of precursor elements, each with differing degrees of significance. Image interactivity technology has a very high level of significance. It describes how the impact of IIT on several variables, including telepresence,

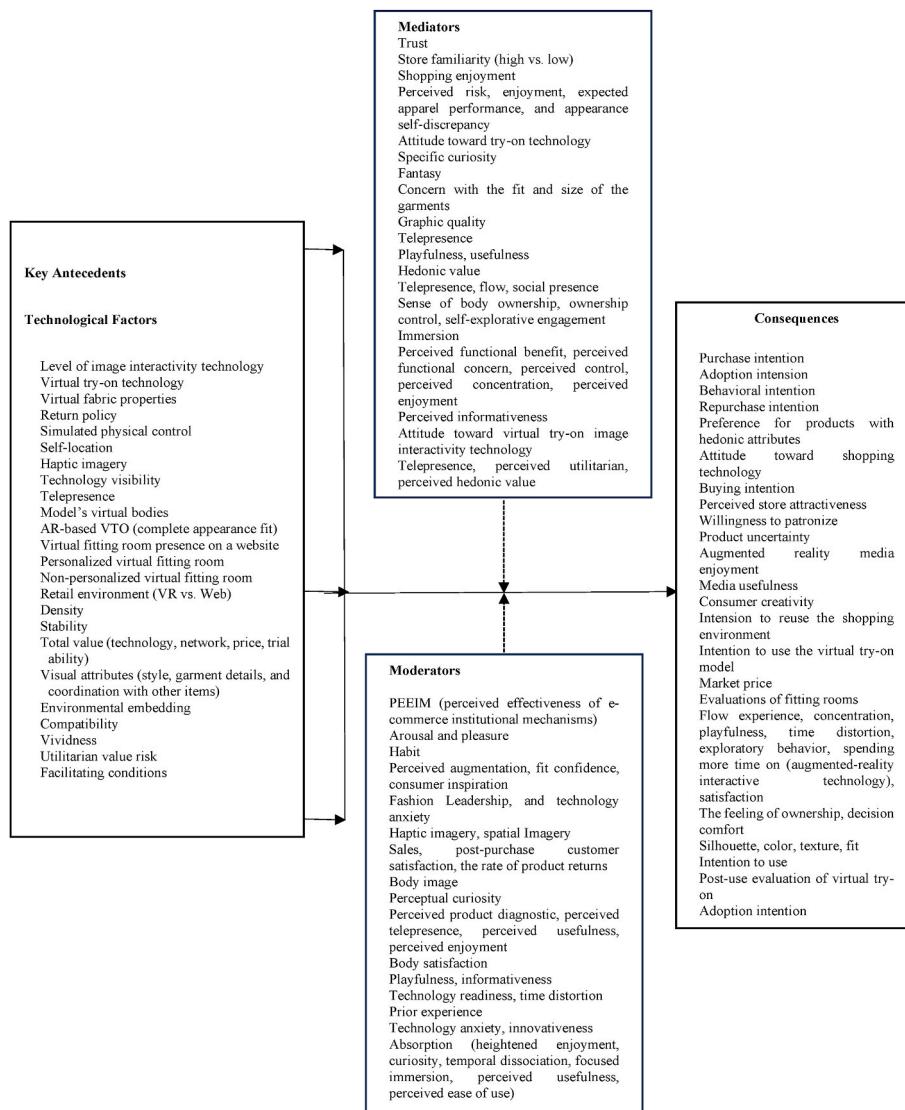


Fig. 9. Conceptual model based on technological factors.

Table 1
Inclusion and exclusion criteria.

Inclusion Criteria	Exclusion Criteria
Typically, review and research papers are written in the English language.	The study omitted book chapters, Ph.D. or master's theses, and non-English reviews or research articles.
Published articles cover January 2005 to February 2023. Qualitative, quantitative, or mixed-method empirical studies.	The study excluded review or research articles published before January 2005 or after February 2023.
The study only considered studies with participants aged 35 or younger.	The study omitted papers that considered studies with 35-year-old or older participants.
The investigation covered only management information systems and marketing papers in a fashion context.	Try-on technology publications in learning, education, medical, healthcare, engineering, and other fields were omitted (see Table 1).

instrumental value, experiential value, and consumer response, was empirically investigated in the current study. The results of the study indicated that there are strong hypothesized relationships between IIT and these factors, indicating that IIT is important in determining how consumers react and perceive value (Fiore et al., 2005a). This study emphasizes how important interactive websites are for e-commerce,

especially when it comes to image interactivity technology (IIT). It makes use of the Technology Acceptance Model (TAM) to evaluate how IIT affects consumers' opinions of online merchants. The findings show that IIT has a positive effect on customer attitudes and intentions. Perceived usefulness, ease of use, and enjoyment are three TAM components that significantly influence these impacts. Furthermore, certain elements of the TAM model are also influenced by the hedonic and utilitarian shopping preferences of the public (Lee, Fiore, & Kim, 2006b).

The ability to pay-on-delivery (POD), return policies, virtual try-on technology (VTO), and free shipping are recognized as significant and potent factors that build trust. They have a favorable effect on how much people trust internet merchants. Conversely, we are surprised to find a paradoxical negative correlation between trust and vendor-specific assurances. This surprising result is important because it raises the possibility that these kinds of guarantees could undermine rather than increase trust (Tandon et al., 2020). Return policies and pay-on-delivery (POD) payment options are acknowledged as effective elements that significantly boost trust. On the other hand, as virtual-try-on technology (VTO) has little effect on trust, it is found to have a modest level of significance (Tandon et al., 2021). Perceived risk, social influence, ease of use, and performance expectations all have a significant impact on the desire to use online virtual fitting rooms. Concerns about privacy and

Table 2
Regions, counts, and sources.

Country/ Region	Counts = 80	Sources
USA	30	(Baytar, Chung, & Shin, 2020; Cho & Fiorito, 2009; Cho and Schwarz, 2010, 2012; Fiore et al., 2005a, 2005c; Gallino & Moreno, 2018; Glenn, 2022; Jiang & Benbasat, 2007; Jin, Kim, Moore, & Rothenberg, 2021; Kang, Shin, & Ponto, 2020; Kim and Forsythe, 2007, 2008; Klassen & Alejandro, 1998; Lee et al., 2006a, 2010a, 2020a, 2020b, 2022a, 2022b; Lee & Xu, 2020; Li & Xu, 2020; Nishimura, 2022; Park & Kim, 2021; Shin & Baytar, 2014; Smith, 2021; Song, Fiore, & Park, 2007; Visinescu, Sidorova, Jones, & Prybutok, 2015; Yaeyuneyong, Pollitte, Foster, & Flynn, 2018; Yim & Park, 2019)
China	13	(Bao, Miao, Gu, Liu, & Liu, 2021; Calantone, Griffith, & Yalcinkaya, 2006; Dong, Wu, Song, Dai, & Nie, 2020; Gao et al., 2021; Hauswiesner, Straka, & Reitmayer, 2011; Huang & Qin, 2011; Li, Zou, Xu, Li, & Li, 2011; Lin & Wang, 2016; Tawira & Ivanov, 2023; Wu, Tao, Lin, & Cai, 2019; Yang & Xiong, 2019; Zhang et al., 2017a, 2019)
India	7	(Grover Vasesi, 2022; Kanduri & Prasad, 2016; Nayak et al., 2022; Prasad, Kavya, & Devi, 2019; Roy, Santra, & Chanda, 2022; Tandon et al., 2020, 2021)
South Korea	7	(Animesh, Pinsonneault, Yang, & Oh, 2011; Bin Kim & Jung Choo, 2023; Han, An, Han, & Lee, 2020a; Lee & Xu, 2022; Park, Nam, mi Choi, Lee, & Lee, 2009a; Shim & Lee, 2011; Song, Baek, & Choo, 2020)
Germany	3	(Meißner, Pfeiffer, Peukert, Dietrich, & Pfeiffer, 2020; Peukert, Pfeiffer, Meißner, Pfeiffer, & Weinhardt, 2019; Vassilev, 2007)
Turkey	2	(Ayalp, Yıldırım, Bozdayı, & Cagatay, 2016; Buyukaslan, Baytar, & Kalaoglu, 2020a)
France	2	(Beck & Crié, 2018; Plotkina & Saurel, 2019)
Sweden	2	(Hernández, Mattila, & Berglin, 2019; Laurell, Sandström, Berthold, & Larsson, 2019a)
Italy	2	(Morelli et al., 2022; Pizzi, Scarpi, Pichierri, & Vannucci, 2019)
Taiwan	2	(Huang & Liao, 2017; Yang & Wu, 2009)
Finland	1	(Xi and Hamari (2021))
France	1	(Plotkina and Saurel (2019))
Portugal	1	(Pereira, Silva, and Alves (2011))
Canada	1	(Alzayat and Lee (2021))
Jordan	1	(Qasem (2021b))
Singapore	1	(Liu, Jiang, and Chan (2019))
Japan	1	(Kobayashi, Sugiura, Saito, and Uema (2019))
Tunisia	1	(Ghodbani, Neji, Razzak, and Alimi (2022))
UK	1	(Watson, Alexander, and Salavati (2018))
Spain	1	(Merle et al. (2012a))

security can have a moderate influence on perceived risk (Huang & Qin, 2011). Price, hedonism, and performance expectations all have a significant effect on centennials' adoption of virtual try-on technology. Hedonism, pricing perception, and performance expectancy are all somewhat impacted by optimism. Nevertheless, effort expectancy doesn't have much of an impact on adoption intention. While innovativeness has a beneficial effect on performance expectancy, its effects on hedonism and effort expectancy vary depending on the connection (Qasem, 2021b). The level of image interactivity technology and the ability to experiment with one's appearance also contribute positively to purchasing enjoyment, whereas perceived risk has a substantial effect on consumers' attitudes toward online retailers (Lee, Kim, & Fiore, 2010b).

Telepresence, which is characterized by a sense of presence and immersion, has a positive effect on both utilitarian and hedonistic values. These values, in turn, have a significant impact on the satisfaction of e-shoppers, which in turn influences their propensity to peruse and make purchases on e-commerce websites (Pizzi et al., 2019). In addition to its experiential and instrumental value, telepresence has a positive effect on a variety of consumer response variables, including attitudes, willingness to purchase, and willingness to patronize (Lee & Xu, 2020).

Table 3
Methodologies, counts, and sources.

Research method	Counts = 80	Sources
Experiment	40	(Bao et al., 2021; Baytar et al., 2020; Beck & Crié, 2018; Bin Kim & Jung Choo, 2023; Buyukaslan et al., 2020a; Cho and Schwarz, 2010, 2012; Dong et al., 2020; Fiore et al., 2005a, 2005c; Gallino & Moreno, 2018; Gao et al., 2021; Kanduri & Prasad, 2016; Kang et al., 2020; Kobayashi et al., 2019; Lavoye, Sipilä, Mero, & Tarkiainen, 2023; Lee et al., 2006a, 2010a; Li et al., 2011; Lin & Wang, 2016; Liu et al., 2019; Meißner et al., 2020; Merle et al., 2012a; Morelli et al., 2022; Park & Kim, 2021; Pereira et al., 2011; Peukert et al., 2019; Pizzi et al., 2019; Plotkina & Saurel, 2019; Prasad et al., 2019; Roy et al., 2022; Shim & Lee, 2011; Shin & Baytar, 2014; Song et al., 2020; Tawira & Ivanov, 2023; Vassilev, 2007; Watson et al., 2018; Wu et al., 2019; Yang & Xiong, 2019; Yim & Park, 2019)
Survey	27	(Alzayat & Lee, 2021; Animesh et al., 2011; Ayalp et al., 2016; Calantone et al., 2006; Cho & Fiorito, 2009; Dacko, 2017; Han et al., 2020a; Hauswiesner et al., 2011; Hernández et al., 2019; Huang & Liao, 2017; Huang & Qin, 2011; Lee et al., 2020a, 2020b, 2022a; Lee & Xu, 2022; Li & Xu, 2020; Nayak et al., 2022; Park et al., 2009a; Qasem, 2021a; Song et al., 2007; Tandon et al., 2020, 2021; Visinescu et al., 2015; Yang & Wu, 2009; Yaeyuneyong et al., 2018; Zhang et al., 2017a, 2019)
Others	5	(Glenn, 2022; Grover Vasesi, 2022; Laurell et al., 2019a; Nishimura, 2022; Smith, 2021)
Interview and survey	2	(Kim and Forsythe, 2007, 2008)
Interview	2	(Lee et al., 2022b; Lee & Xu, 2020)
Literature review	2	(Davis, 1989; Xi & Hamari, 2021)
Observation	1	(Jin et al. (2021))
Systematic literature review	1	(Ghodbani et al. (2022))

Mix-and-match image interactivity enables users to visually construct a variety of product combinations. The optimal stimulation level and recreational purchasing, both of which anticipate the hedonic value it provides, are the driving forces behind this image interactivity feature. Consumers with a higher OSR or those who purchase for pleasure are more likely to utilize the image interactivity feature in search of an engaging experience. Both OSR and recreational shopping have indirect and substantial effects on global attitudes, purchasing propensities, and patronage propensities. Moreover, arousal directly influences consumers' willingness to purchase and willingness to patronize, whereas pleasure directly influences consumers' global attitudes and willingness to patronize the online store (Shin & Baytar, 2014). Several factors come into play when contemplating the integration of UTAUT constructs and perceived risk in the context of e-service utilization. Expectations of performance and effort, as well as social influence, have a positive effect on the intention to use the virtual fitting room. In contrast, perceived risk has a negative impact on the intention to utilize virtual fitting rooms, with privacy and security concerns exacerbating this perceived risk (Hauswiesner et al., 2011).

In the realm of online apparel customization, consumers view websites as useful and competent when they recognize the benefits of customization and view them as trustworthy in terms of information disclosure. Customers do not view the user-friendliness of the website as valuable or competent (Kang et al., 2020). Website interactive information technology has a positive effect on online retailers' behavioral intentions and attitudes. Users will put in more effort to increase productivity if they think that modern technology may help them do their jobs more successfully. This will be advantageous for both business and

Table 4

Theories, Sources, and Purpose of the studies.

Core Theory Applied	Sources	Examination of studies (Purpose of the studies)
S-O-R (stimuli-organism-response)	Lee et al. (2022b)	Consumer evaluations of the technical characteristics that influence their propensity to adopt virtual try-on technology
	Shin and Baytar (2014)	Concerns and intentions of consumers regarding the fit and sizing of apparel, as well as their propensity to use virtual try-on technology.
	Jin et al. (2021)	The effect of consumers' try-on technology experiences on their emotional state
	Lee et al. (2010a)	The influence of image interactivity technology on how consumers perceive their physical appearance and their overall online purchasing experience, including their emotional and cognitive responses,
	Merle et al. (2012a)	How and why customers use virtual try-on technology on e-commerce websites
	Animesh et al. (2011)	The impact of technological and spatial environments on purchasing intentions for virtual products
	Baytar et al. (2020)	During the online shopping procedure, garments are evaluated using augmented reality (AR).
	Zhang et al. (2019)	How the adoption of try-on technology influences the utilitarian, hedonic, and risk-related purchase intentions of consumers
	Tandon et al. (2020)	The impact of intangible product characteristics and institutional e-commerce mechanics on consumer trust and repurchase intent
	Yaoyuneyong et al. (2018)	The relationship between augmented reality dressing room media and purchase intent, as well as the mediating factors
Signaling theory	Tandon et al. (2021)	The influence of pay-on-delivery, return policies, and virtual try-on technology on consumer trust and repurchase intent
	Tandon et al. (2020)	The effect of intangible product characteristics and the institutional dynamics of e-commerce on consumer trust and intention to repurchase
UTAUT2 (unified theory of acceptance and use of technology 2)	Qasem (2021a)	The influence of individual personality attributes on consumers' virtual fitting room adoption behavior
	Meißner et al. (2020)	The impact of try-on technology on the consumer decision-making process
	Zhang et al. (2017a)	The Influence of try-on technology on the purchasing decisions of Consumers
	Huang and Qin (2011)	An investigation of the virtual fitting room based on the UTAUT model
	Qasem (2021a)	The influence of consumer personality traits on their propensity to adopt and utilize the virtual fitting room
TR (Technology readiness)		

Table 4 (continued)

Core Theory Applied	Sources	Examination of studies (Purpose of the studies)
The theory of interactive media effects	Lee et al. (2021a)	Through the lens of the interactive media effects theory, the acceptability and utilization of an AR-based virtual fitting room are analyzed.
TAM (Technology acceptance model)	Han et al. (2020a)	The Influence of telepresence, time distortion, and consumer traits on virtual reality purchasing experiences
	Lee, Xu, and Li (2020)	Comparing the visibility of technology, consumer perceptions, and adoption intentions among Chinese and Korean consumers
	Li and Xu (2020)	The influence of two relevant personality characteristics, namely fashion leadership and technology anxiety, on the adoption of virtual fitting rooms (VFRs) among consumers
	Plotkina and Saurel (2019)	The significance of technology adoption and physical appearance in mobile retailing (M-retailing) of apparel
	Zhang et al. (2017a)	The Influence of try-on technology on the purchasing decisions of Consumers
	Lee et al. (2006a)	Acceptance and application of image-interactive technology.
	Park et al. (2009a)	The impact of consumer body types and purchasing habits on the adoption of try-on technology
	Cho and Fiorito (2009)	The adoption and utilization of apparel customization via online platforms
	Kim and Forsythe (2008)	The enjoyable application of visualization technologies in the context of online apparel shopping
	Kim and Forsythe (2007)	The enjoyable application of visualization technologies in the context of online apparel shopping
	Visinescu et al. (2015)	The effect of website dimensions on the consumer experience as a whole
Flow theory	Han, An, Han, and Lee (2020b)	The impact of telepresence, time distortion, and consumer characteristics on the virtual reality purchasing experience
Utilitarian, hedonic, and risk	Zhang et al. (2019)	Through the integration of utilitarian, hedonic, and risk-related perspectives, virtual try-on technology influences the online consumer's purchase intention decision-making process.
	Kang et al. (2020)	The effect of try-on technology on the purchasing decision-making process of consumers
	Alzayat and Lee (2021)	The importance of both hedonic and utilitarian factors in virtual purchasing experiences
	Watson et al. (2018)	Try-on apps and consumer purchase intent
Virtual liminoid theory	Huang and Liao (2017)	Utilizing interactive augmented reality (AR) technology to generate a multisensory flow experience in online purchasing

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Table 4 (continued)

Core Theory Applied	Sources	Examination of studies (Purpose of the studies)
C-E-V (Consciousness-Emotion-Value)	Song et al. (2007)	The impact of telepresence and fantasy on the online purchasing experience as a whole
	Fiore et al. (2005c)	The effect of image interactivity's hedonic value on consumer responses during online purchasing
Schema theory	Jin et al. (2021)	The impact of consumers' technology try-on experiences on their emotional health facilitating consumers' virtual product contact experiences.
Grounded cognition	Liu et al. (2019)	Providing consumers with the ability to virtually experience the product's tactile sensations.
Consumer mental imagery	Liu et al. (2019)	The enjoyable application of visualization technology in the context of online apparel shopping
TRA (Theory of reasoned action)	Kim and Forsythe (2007)	The impact of consumer body types and purchasing behaviors on the acceptance and utilization of try-on technology
	Park et al. (2009a)	The visibility of technology, consumer perceptions, and adoption intentions among Chinese and Korean consumers
Habituation-tedium theory	Lee, Xu, and Li (2020)	Try-on technology provides consumers with ease during the selection process.
	Song et al. (2020)	

the economy. Technology innovation and alignment played a significant role in this case. The results demonstrate that originality and technological compatibility are important drivers of how new technology gets embraced in various markets (Calantone et al., 2006; Qasem, 2021b). Users get a first-person perspective thanks to strong self-location. Through enhanced tactile and visual synchrony, immersion creates a sense of ownership over one's virtual body. A strong sense of self-location accurately portrays the user's movement and orientation. By tying their objectives and motivations to this extended sense of self-location, online customers can freely explore their online experiences. Using haptic images, online consumers can convey things like facial features, posture, wardrobe combinations, and skin tone. Realistic haptic imagery undoubtedly promotes self-discovery in online shoppers. Haptic imaging and self-location enhance body ownership, virtual self-control, and self-exploration. Self-location and haptic imagery can predict virtual self-control, body ownership, and self-exploration. Body ownership, regulation, and self-exploration were all raised by haptic imagery (representing touch) and self-location (growing spatial awareness) (Huang & Liao, 2017).

The technological (interactivity and sociability) and spatial (density and stability) aspects of virtual worlds have an impact on users' virtual interactions (telepresence, social presence, and flow). These aspects also influence users' responses, particularly their propensity to buy virtual goods. According to the study, object interactivity greatly enhances telepresence and flow. Social presence but not flow is strongly correlated with sociability, which encourages interaction. Stability and density are factors that affect VR. Stability improves social flow by fortifying social ties. Oddly, flow and social presence are linearly correlated with density. Density increases socialization while slowing flow. Given that social presence favors flow, the strength of the connections between these three factors determines how density affects flow (Animesh et al., 2011).

4.6. Key antecedents: consumers' characteristics

Consumer characteristics affect how consumers use try-on

Table 5

Key antecedents (technological characteristics), and basis for the classification.	
Technological Characteristics	Basis for the Classification
Level of image interactivity technology	This aspect, which reflects the degree of engagement and sophistication that the technology delivers, is closely related to the virtual fitting room's technological capabilities.
Virtual try-on technology	This aspect falls under the category of technological attribute since it is primarily related to the technology used in virtual try-ons.
Virtual fabric properties	The technological side of fabric property replication is its ability to generate realistic textures and visual representations.
Simulated physical control	The term "simulated physical control" refers to a technological feature that lets users simulate physical interactions in virtual environments. It is frequently associated with VR, AR, gaming controllers, and haptic feedback systems.
Haptic imagery	Haptic technology encompasses the sensory experience of touch and tactile feedback, therefore establishing it as a distinctive technical characteristic.
Technology visibility	This aspect focuses on how visible and prominent the technology is in the user's experience, highlighting its technological features.
AR-based VTO (complete appearance fit)	Technology is used to achieve augmented reality (AR), and this part focuses on AR technology.
Virtual fitting room presence on a website	One technological feature that shows how a website has used technology is the existence of a virtual fitting room.
Personalized virtual fitting room	Personalization is a technological feature that makes use of technology to tailor the experience for each individual user.
Non-personalized virtual fitting room	Similarly, the absence of customization is a purposeful technological choice.
Retail environment (VR vs. Web)	This feature sets the virtual fitting room apart from other technological platforms, such as web-based apps and virtual reality (VR).
Total value (technology, network, price, trial ability)	This categorization is based on the intrinsic properties of these components as they relate to the concept of "total value." While the product's technology and network are essential components, the pricing, and the option to try the product before buying are consumer-centric considerations.
Visual attributes (style, garment details, and coordination with other items)	The utilization of cutting-edge technology is crucial to creating an immersive and engaging experience for users.
Compatibility	This is a technological feature as it relates to the technology's compatibility with other devices or platforms.
Utilitarian value risk	The concept of "utilitarian value risk" pertains to the inherent technological components that may pose a threat to the functionality and effectiveness of a product. This could involve potential technological malfunctions, considerations regarding program compatibility, or limitations imposed by hardware.
Facilitating conditions	Technological elements, such as user interface design, accessibility features, and system compatibility, have the potential to facilitate or impede consumer behaviors.
Technological Innovativeness	The concept of "technology innovativeness" refers to a characteristic of technology that pertains to the degree of technological innovation and advancement, independent of customer behaviors or preferences.
Return Policy	Return policies give priority to customer satisfaction using technology and offer

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Table 5 (continued)

Technological Characteristics	Basis for the Classification
Self-location	instructions on how to return goods while safeguarding consumers' rights. "Self-location" uses GPS to determine a user's or device's location. It is a technological capabilities factor.
Telepresence	Telepresence is mostly about technology that lets people experience virtual environments as if they were there. It focuses on technology, not consumer behavior or impressions.
Model's virtual bodies	In technology, "models' virtual bodies" represent digital modeling methods. This may entail 3D modeling or digital rendering software used to create and operate virtual bodies.
Density	In a technological setting, the term "density" commonly refers to the degree of concentration or compactness observed inside a substance, dataset, or body of information.
Stability	The term "stability" in technology refers to the degree of error-free and uninterrupted operation of a software or system. Uptime and system performance are common metrics used to assess this technological characteristic.
Environmental embedding	Environmental embedding integrates technology like sensors and IoT devices into an environment. It emphasizes technology's ability to adapt to the environment rather than user preferences, emphasizing its technological nature.
Vividness	"Vividness" is a term used to describe how consumers view the depth and intensity of experiences and content. Although technology can help with this, consumers and their subjective opinions are what matter most.

technology. Among all, the most commonly used factors are perceived usefulness, perceived ease of use, perceived interactivity, perceived enjoyment, and perceived socialization, respectively. These are often used because these factors are significant for comprehending consumer behavior, user satisfaction, and technology adoption. These variables provide insightful information about user motives, experiences with technology, and behavior, which makes them important in a variety of studies and real-world scenarios.

Several antecedents have been used to investigate the impact of try-on technology (consumer aspects) on the decision-making process of online shoppers, especially when utilizing virtual try-on technology, with each element exhibiting varying degrees of significance. The following are these factors' levels of significance: For example, consumer views on try-on technology and how useful and enjoyable they think it is having a significant influence on their decisions. Concerns about privacy related to try-on technology are a major issue, and perceived usability plays a crucial part. Interestingly, the study found that try-on technology had consistent effects on decision-making for a wide range of age and gender groups (Zhang et al., 2019). The study investigates whether product virtualization methods are preferred by online buyers for garments for hedonistic rather than utilitarian reasons. Functionalism is less important than hedonic motivation in terms of its significance. The perceived entertainment value above perceived utility substantially influences attitudes regarding adopting this technology (Kim & Forsythe, 2007). According to the study, virtual try-on technology has a major role in lowering the risk of products and enhancing the pleasure of online shopping. Additionally, innovativeness was found to be highly significant and to moderate the association between attitude and virtual try-on utilization. Furthermore, there was a moderating effect of technological anxiety on the association between attitude and

Table 6

Key antecedents (consumer characteristics), and basis for the classification.

Consumer Characteristics	Basis for the Classification
Performance expectancy	Customers use "performance expectancy" to assess a technology or product's ability to meet their needs and improve their lives.
Effort expectancy	The "effort expectancy" of a client is a measure of how easy or difficult they believe a product or technological feature to be. It considers the user's perspective and needs.
Mode of payment	Technology enables the implementation of several payment methods; nonetheless, the choice of payment mode ultimately depends on customer decision-making, highlighting the extensive range of options they choose based on convenience and personal taste.
Model's ideal bodies	The notion of "ideal bodies portrayed by models" revolves around the perspectives and beliefs of consumers concerning beauty standards and perceptions of physical appearance, which are influenced by society and cultural factors.
Ethnic and body size fit with the model	The consumer attribute being discussed pertains to the perception of the alignment between the ethnicity and body size of models in advertising and fashion. This perception is influenced by consumer choices and opinions rather than technological factors.
Ethnic fit with the model	Customers evaluate whether a model's ethnicity is appropriate for marketing purposes based on their cultural tastes and opinions rather than technological advancements. This is a consumer attribute.
Body Size fits with the model	Is a consumer characteristic. The issue is how consumers evaluate whether a model's body type is appropriate for marketing purposes, reflecting their own preferences and beliefs about their bodies.
No ethnic and no body size fit with the model	When a model's ethnicity and body size are not in line with marketing, this is a feature that people notice. Not technology considerations, but their cultural and body image preferences are reflected in it.
Challenge	The term "challenge" in the context of technology can refer to the difficulties or technical complexity that arise during the creation and application of a technology. This can include problems with hardware design, infrastructure development, or software development.
Free shipping policy	Consumer-oriented features like a "free shipping policy" influence what consumers choose and decide to buy. This policy's primary focus is on consumers and their buying experiences, even though technology makes it possible.
Vendor specific guarantee	The focus of a vendor-specific guarantee is customers, namely how they view and profit from the vendor's guarantee. Technology could be important, but the safety of consumers and their confidence in the vendor should come first.
Price value	"Price value" is a feature that focuses on consumers and describes how they evaluate the worth of a good or service in relation to its cost. Not technology, but their opinions and affordability are the determining factors.
Perceived usefulness	Perceived usefulness" is how consumers evaluate a product or technology's practicality. This consumer-oriented approach emphasizes utility and efficacy.
Perceived ease of use	"Perceived ease of use" assesses whether consumers feel a product or technology is easy to use, stressing consumer happiness and usability.
Perceived interactivity	A consumer trait known as "perceived interactivity" gauges how users feel about a

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Table 6 (continued)

Consumer Characteristics	Basis for the Classification
Perceived enjoyment	product or piece of technology in terms of interaction and engagement, with an emphasis on user happiness and how engaging the experience seems to them.
Perceived socialization	Consumers rate their happiness with a product or technology using “perceived enjoyment” as a characteristic. It’s about consumer preferences and how much they like the product or service.
Perceived privacy risk	“Perceived socialization” measures how consumers perceive and evaluate social interaction and connectivity when utilizing a product or technology. It focuses on consumer experiences and how socially engaging the product or service is for them.
Perceived entertainment value	“Perceived privacy risk” measures how people view the privacy risks of a product or technology. It addresses privacy and data security concerns and judgments.
Perceived augmentation	“Perceived entertainment value” measures how consumers enjoy a product or technology. It depends on the user’s tastes, experiences, and how interesting and enjoyable the product or service is.
Body ownership	Consumer-focused “perceived augmentation” measures how much a product or technology improves their experiences or skills. Consumer impressions, judgments, and the product’s ability to improve their lives are the focus. “Body ownership” can refer to the user’s subjective perception of being linked to and in charge of their digital or virtual personas, emphasizing their customer-focused emotions and experiences.
Perceived product risk	“Perceived product risk” is a consumer-focused characteristic that measures how consumers assess the possible hazards and issues related to a technology or product. It focuses on the concerns of the customer, how they evaluate potential downsides, and how they perceive the risks associated with the product.
Perceived security	“Perceived transaction risk” measures how consumers perceive and assess financial or transactional risk in a product or technology. It focuses on consumer perceptions of transaction risks and downsides.
Unfavorable body image	Consumers define “unfavorable body image” as a negative self-perception and appraisal of their physique. Instead of technology, it emphasizes self-esteem and attitudes.
Utilitarian shopping orientation	The “utilitarian shopping orientation” consumer-oriented trait describes how people approach purchases from a practical and goal-driven standpoint. It highlights the preferences, intents, and values that customers place on practical concerns while making purchases, as opposed to concentrating on technology capabilities.
Media irritation	“Hedonic shopping orientation” emphasizes pleasure, delight, and emotional satisfaction from shopping. It emphasizes consumer preferences, emotions, and their need for fun and fulfillment in purchase decisions over technology.
Technology anxiety	“Technology anxiety” is a consumer-focused characteristic that centers on people’s tension, unease, or fear when using technology. Instead of focusing on technical features, it highlights the feelings and comfort levels of the customer with technology.
Optimism	“Optimism” is a consumer-focused quality that revolves around a person’s optimistic perspective, faith in good things coming to pass, and upbeat demeanor. It draws attention to how consumer attitudes and viewpoints

Table 6 (continued)

Consumer Characteristics	Basis for the Classification
Innovativeness	might influence how they react to various circumstances, especially those involving technology.
Control	It is possible to investigate “innovativeness” from the perspective of the consumer, taking into account how consumers evaluate the uniqueness and inventiveness of a technology or product based on their experiences using it. This viewpoint considers consumer assessments and technological aspects.
VTO self-congruity	“Control” in the context of consumers refers to how people view and exert control over their interactions with technology. This includes the choices, options, and actions consumers take to customize their experience and manage their data. It focuses on the agency and independence that users feel when using technology.
Body esteem	The concept of “VTO self-congruity” refers to how well a consumer’s self-perception matches their extravagant virtual try-on (VTO) experience. The topic is consumers’ perceptive assessment of how well the Virtual Try-On (VTO) matches their esteemed self-identity, beyond technological factors.
Physical attributes (size and color)	A consumer-oriented characteristic called “body esteem” is concerned with how people feel and see their physical appearance. It is more about personal attitudes and self-perception than technological features, with a focus on emotions, self-esteem, and self-image.
Virtual body satisfaction	“Physical attributes (size and color)” primarily refer to the choices and preferences of customers in relation to the physical characteristics of a product. Customization is possible due to technology, but the main focus is still on customer preferences and perceptions, not on technical features.
Economic motivation	Consumer-focused “virtual body satisfaction” refers to people’s perceptions and emotions around their digital or virtual selves. With less focus on technical features, it centers on consumer attitudes, self-perception, and satisfaction with their digital identities.
Apparel shopping self-confidence	“Economic motivation” mostly refers to the rationale underlying a person’s financial choices, such as how much money they save or spend. Although technology plays a role, the main emphasis is on the financial objectives and driving forces of the consumer rather than technical aspects.
Demographic characteristics (age, gender, and educational level)	“Apparel shopping self-confidence” refers mainly to a person’s comfort level and sense of confidence when they go clothes shopping. Technology can play a role in the buying experience, but the main emphasis should be on the consumer’s confidence in their wardrobe selections rather than technical features.
Body types	Inherent personal qualities that consumers possess are the focus of ‘demographic characteristics (age, gender, and educational level)’. The focus is on comprehending and classifying consumers based on these attributes rather than on technological features, even though technology can help with data collection and analysis.
	“Body types” refer to the attributes of consumers that are associated with their inherent bodily forms and dimensions, such as their proportions and physical makeup. While technology can help with fit, recognizing and classifying customers according to their distinct body characteristics is more important than focusing just on technological aspects.

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Table 6 (continued)

Consumer Characteristics	Basis for the Classification
Fit problems with ready-to-wear	“Fit problems with ready-to-wear” focuses on consumer clothing fit issues. Technology can help with these issues, but the major focus is on consumers’ experiences and challenges with off-the-rack clothing fit.
Shopping orientation	“Shopping orientation” mostly refers to a consumer’s perspective and style of shopping. Although technology has a place, consumer behavior and preferences are the focus.
Social influence	The concept of “social influence” describes how social interactions impact purchasing decisions. Although technology is a factor in this, the focus is on the ways in which people’s social circles shape them rather than on technical aspects.
Optimum stimulation level	“Optimum stimulation level” refers to the individual’s preferred sensory or cognitive stimulus. Technology can help provide such stimulation, but consumer choices and how they seek or avoid different levels of stimulation for their ideal experience are more important.
Experimenting with appearance	“Experimenting with appearance” usually means changing a person’s haircut or clothing. Technology can aid this process, but customer preferences and self-expression are key.

virtual try-on use. However, it was discovered that gender disparities had no appreciable effect on the virtual try-on adoption process as a whole (Kim & Forsythe, 2008). The study examined the uptake of virtual fitting rooms by Chinese consumers, highlighting the minimal influence of their perceived usefulness. Brands and retailers hoping to encourage VFR adoption in online clothing buying should take note of the findings. The study found that perceived ease of use had a significant impact on consumer views (Li & Xu, 2020).

Perceived usefulness, perceived ease of use, and perceived enjoyment improve consumers’ attitudes and behavioral intentions toward online retailers (Zhang, Cao, & Wang, 2017b). Hedonic purchasing has a substantial impact on enjoyment, one of the components of TAM. Moreover, utilitarian shopping orientation positively influences two aspects of TAM: perceived usefulness and perceived ease of use. Moreover, the availability of virtual fit information positively affected both the order value and conversion rate. It reduced the fulfillment costs incurred because consumers ordered multiple sizes and made returns. Virtual fit information benefited both consumers and companies, as it enabled consumers to make more informed purchasing decisions and reduced sizing uncertainty (Jin et al., 2021). However, among the three variables of the technology acceptance model, perceived usefulness is the least influential for Chinese consumers. This can be attributed to the fact that try-on technology is still in the development phase, with avatars and virtual models not yet accurately constructed, which may hinder its ability to effectively meet the requirements of consumers and solve their issues. In addition, Chinese consumers’ lack of confidence in using try-on technology because of limited experience may contribute to the lower influence of perceived usefulness on their adoption of the technology (Li & Xu, 2020; Park et al., 2009c). Media characteristics such as perceived interactivity and perceived augmentation have a positive impact on consumers’ perceptions of telepresence as well as their intentions to implement try-on technology (Zhang et al., 2019). In an expanded version, a similar model was used, considering the gender and age of respondents. In addition, two personality traits sensation-seeking tendencies and technological anxiety—served as moderators. It revealed that the positive effect of media characteristics on telepresence and consumers’ intent to implement try-on technology remained. In addition, the study discovered a positive correlation between these moderators and the investigated variables (Kim & Forsythe, 2009).

A cross-cultural comparison of Chinese and Korean markets,

Table 7

Key antecedents, and definitions.

Key Antecedents	Definitions
Perceived augmentation	Technology-enhanced experiences, traits, and skills are called perceived augmentation (Lee et al., 2022a).
Experimenting with appearance	Experimenting with appearance involves testing out different physical or visual alterations for self-expression, identity exploration, or aesthetic research (Lee et al., 2010a).
Model’s ideal bodies	The fashion and beauty industries’ standards for models’ ideal bodies are their physical qualities and dimensions (Shin & Baytar, 2014).
Model’s virtual bodies	Digital or computer-generated models’ virtual bodies are utilized in virtual environments, digital media, and virtual reality applications (Shin & Baytar, 2014).
Sociability	The ability to socialize, develop relationships, and participate in social activities (Animesh et al., 2011).
Density	Density is the concentration of goods, substances, or people in an area (Animesh et al., 2011).
Stability	Stability is firmness, steadiness, or resistance to change (Animesh et al., 2011).
Physical try-on (size and color)	Involves trying on clothes or products to evaluate their fit and attractiveness (Baytar et al., 2020).
Visual attributes (style, garment details, and coordination with other items)	Pertain to the visual characteristics of apparel or fashion items, including their style, design components, and how they coordinate with other items when worn together (Baytar et al., 2020).
Level of image interactivity technology	Refers to the amount of IIT used in a system, application, or environment (Lee et al., 2010a).
Store experience (VR vs Website)	Refers to the sensory and interactive experience of shopping in a physical store utilizing virtual reality technology versus browsing and purchasing things online (Jin et al., 2021).
Virtual try-on technology	It describes the use of digital tools like augmented reality or virtual reality to simulate trying on garments or accessories before buying them (Tandon et al., 2020).
Free shipping policy	It alludes to a business practice when the seller pays for shipping goods or products to the client (Tandon et al., 2020).
Vendor-specific guarantee	A vendor’s or seller’s guarantee of a product’s or service’s quality, performance, or satisfaction (Tandon et al., 2020).
Return policy of e-retailer	Describes an online retailer’s policies for returning merchandise for a refund, exchange, or store credit (Tandon et al., 2020).
Mode of payment	A financial transaction method, such as cash, credit card, digital wallet, or bank transfer (Tandon et al., 2020).
Performance expectancy	A person’s anticipation of a technology, system, or product’s ability to achieve its aims (Qasem, 2021a).
Effort expectancy	An individual’s view or anticipation of the ease and convenience of using a technology, method, or product to achieve a goal (Qasem, 2021a).
Hedonic motivation	A person’s need for pleasure, happiness, or emotional satisfaction drives their behavior and decisions (Qasem, 2021a).
Price value	Pertains to the perceived value or efficacy of a product or service relative to its price (Qasem, 2021a).
Optimism and innovativeness	Possess an optimistic frame of mind and the capacity to generate innovative ideas or methods (Qasem, 2021a).

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Table 7 (continued)

Key Antecedents	Definitions
Perceived usefulness	Refers to a person's subjective assessment or belief about how much technology, system, or product can improve their productivity, efficiency, or effectiveness in attaining goals or tasks (Zhang et al., 2017a).
Perceived ease of use	Describes a person's subjective opinion of a technology, system, or product's ease of use (Zhang et al., 2017a).
Perceived enjoyment	Perceived enjoyment is an individual's subjective sensation of pleasure, contentment, and positive emotion when using a technology, system, or product (Zhang et al., 2017a).
Perceived socialization	The subjective experience of participating in social connections and belonging to a social community (Zhang et al., 2017a).
Perceived product risk	Applies to an individual's subjective judgment or perception of the potential negative repercussions, uncertainties, or downsides of a product or purchase decision (Zhang et al., 2017a).
Perceived transaction risk	An individual's subjective judgment or impression of the potential uncertainties, fears, or unfavorable effects of a financial transaction, such as online purchasing or electronic payment (Zhang et al., 2017a).
Facilitating conditions	The resources, support, and enabling elements that make a technology or system easy to use and successful to adopt (Huang & Qin, 2011).
Perceived Interactivity	A person's sense of a communication or interaction system's responsiveness, engagement, and interactivity (Lee et al., 2021a).
Utilitarian shopping orientation	A consumer's focus is on practicality, functionality, and efficiency while making purchasing selections, preferring usefulness and value over aesthetics or prestige (Lee et al., 2006a).
Hedonic shopping orientation	A consumer's focus is on shopping for products and services that satisfy aesthetic and emotional needs (Lee et al., 2006a).
AR-based try-on technology (complete appearance fit)	Augmented reality is used to virtually try on fashion goods to analyze their fit, style, and overall appearance on an individual (Plotkina & Saurel, 2019).
Ethnic and body size fit with the model	A model's ethnicity and body size match the target audience or represent varied ethnicities and body types in the modeling industry or fashion sector (Plotkina & Saurel, 2019).
Ethnic fit with the model	The depiction or alignment of a model's ethnicity or race with the target audience or desired cultural context in fashion or modeling (Plotkina & Saurel, 2019).
Body size fits with the model	The correspondence or suitability of a model's body measurements, proportions, or physique with the desired standards or preferences within the modeling industry or fashion realm (Plotkina & Saurel, 2019).
No ethnic and no body size fit with the model	A mismatch between the model's race, body size, and industry standards or fashion tastes (Plotkina & Saurel, 2019).
Technology visibility	The extent to which technology's presence, operation, or components are visible to users or observers in a particular context or interface (Lee, Xu, & Li, 2020).
Compatibility	The degree to which two or more entities, systems, or elements may cooperate without conflict or inconsistency (Calantone et al., 2006).
Technological innovativeness	The ability of individuals or organizations to actively seek, adapt, and use new technical advances, solutions, or methods

Table 7 (continued)

Key Antecedents	Definitions
Perceived security	in their operations, goods, or services (Calantone et al., 2006).
2D/3D website	An individual's subjective sense or belief about a product, service, or environment's safety, protection, or trustworthiness (Cho & Fiorito, 2009).
Telepresence	A website with two-dimensional and three-dimensional features for a more immersive and visually appealing experience (Visinescu et al., 2015).
Challenge	The impression of being present or "virtually" present in a faraway location or setting through technology, delivers a genuine and immersive interaction and engagement experience (Han et al., 2020a).
Body Ownership	Challenges are tough tasks, situations, or goals that require effort, skill, or tenacity to overcome or achieve (Han et al., 2020a).
Shopping orientation	A person's subjective sense of agency, identification, and embodiment that their body is theirs (Han et al., 2020a).
Body types	An individual's shopping mindset encompasses their preferences, motives, and priorities when making purchases (Park, Nam, mi Choi, Lee, & Lee, 2009c).
Fit problems with R-to-W	Classifying people by height, weight, body composition, and body fat distribution (Park et al., 2009c).
Visual-spatial cues	R-to-W (ready-to-wear) fit problems occur when ready-made clothes don't fit properly or are uncomfortable (Park et al., 2009c).
Retail Environment (VR vs Web)	Visual or spatial clues in the environment help to perceive, navigate, and grasp spatial relationships and items in a scene (Kang et al., 2020).
Presence of augmented reality on apps	Comparing the immersive and virtual reality experiences with online browsing and shopping through a website (Alzayat & Lee, 2021).
Self-location	Augmented reality in smartphone apps lets users superimpose digital content on the actual environment (Watson et al., 2018).
Haptic imagery	An individual's knowledge of their place in an augmented or virtual world (Huang & Liao, 2017).
Optimum stimulation level	An individual's touch-based sensations and feedback simulate texture, form, and physical presence in virtual or digital worlds (Huang & Liao, 2017).
Presentation format (2D vs 3D)	An individual's ideal sensory or cognitive stimulation for arousal, engagement, and performance (Fiore et al., 2005c).
Interaction Mode	Visual content and perception, including two-dimensional (flat) and three-dimensional (spatial) representations (Liu et al., 2019).
Environmental embedding	The way a user interacts with a system, interface, or technology determines their input and response mechanisms (Liu et al., 2019).
Simulated physical control	The seamless integration of technology and physical space provides an immersive experience (Song et al., 2020).

considering the dimension of national cultural values, namely collectivism versus individualism, reveals that compared to Korean consumers, Chinese consumers, who tend to be more collectivist, placed a greater emphasis on technology visibility when adopting. Virtual fitting rooms Moreover, perceived concerns had a negative impact on Chinese consumers' adoption intentions. In contrast, enjoyment, perceived benefits, and perceived concentration played a significant role in

Table 8
Antecedents, counts, and sources.

Key Antecedents	Counts =	Sources
Technological Characteristics	31	
Level of image interactivity technology	3	(Fiore et al., 2005a; Lee et al., 2006b, 2010b)
Virtual try-on technology	2	(Tandon et al., 2020, 2021)
Virtual fabric properties	2	(Huang & Qin, 2011; Qasem, 2021b)
Return policy	2	(Tandon et al., 2020, 2021)
Simulated physical control	1	Song et al. (2020)
Self-location	1	Huang and Liao (2017)
Haptic imagery	1	Huang and Liao (2017)
Technology visibility	1	Lee, Xu, and Li (2020)
Telepresence	1	Han et al. (2020a)
Model's virtual bodies	1	Shin and Baytar (2014)
AR-based VTO (complete appearance fit)	1	Plotkina and Saurel (2019)
Virtual fitting room presence on a website	1	Beck and Crié (2018)
Personalized virtual fitting room	1	Yang and Xiong (2019)
Non-personalized virtual fitting room	1	Yang and Xiong (2019)
Retail environment (VR vs. Web)	1	Alzayat and Lee (2021)
Density	1	Animesh et al. (2011)
Stability	1	Animesh et al. (2011)
Total value (technology, network, price, trial ability)	1	Laurell, Sandström, Berthold, and Larsson (2019b)
Visual attributes (style, garment details, and coordination with other items)	1	Baytar et al. (2020)
Environmental embedding	1	Song et al. (2020)
Compatibility	1	Calantone et al. (2006)
Vividness	1	Yang and Wu (2009)
Utilitarian value risk	1	Yang and Wu (2009)
Facilitating conditions	1	Huang and Qin (2011)

determining the adoption intentions of Korean consumers (Yim & Park, 2019). When it comes to the fashion sector, having optimistic and inventive personality qualities has a beneficial impact on individuals' expectations of performance as well as their perceived value while using try-on technology. The way a consumer perceives their own body can influence how likely they are to use virtual try-on technology. Virtual try-on technology websites tend to be preferred by customers who are unhappy with their body image when compared to conventional web-based product presentations. This is because virtual try-on technology allows customers to virtually try on products. (Qasem, 2021a). Low-body-satisfaction women are more anxious about clothes fit and size than high-satisfaction women (Shin & Baytar, 2014). Some consumers choose convenience over leisure and enjoyment. But slim consumers, regardless of height, have fewer ready-to-wear fitting concerns and prefer leisure. Consumers who are satisfied with their body image do not exhibit any differences in their evaluation of the two kinds of representations (Yim & Park, 2019).

4.7. Moderators and mediators

Studies that have been conducted to investigate the relationship between try-on technology, consumer characteristics, and engagement have used a variety of mediators and moderators, with various degrees of success. For example, whereas the level of sensation seeking has no effect on the relationship between telepresence and perceived value, technical anxiety does, especially among consumers who have low levels of sensation seeking. This is especially true for consumers who have low levels of sensation-seeking. Only customers who are not easily intimidated by new technologies are likely to be significantly affected by perceived interactivity's effect on telepresence (Antman et al., 1992). Additionally, hedonic motivation, performance expectancy, and price value are significant mediators between optimism and innovativeness, in addition to behavioral goals; however, effort expectancy is not one of these essential mediators. Studies that have used a variety of mediators

Table 9
Key antecedents, counts, and sources.

Key Antecedents	Consumer Characteristics	Counts = 69	Sources
Perceived usefulness	6	(Cho & Fiorito, 2009; Kim and Forsythe, 2007, 2008; Li & Xu, 2020; Zhang et al., 2017b, 2019)	
Perceived ease of use	5	(Cho & Fiorito, 2009; Kim & Forsythe, 2008; Li & Xu, 2020; Zhang et al., 2017b, 2019)	
Perceived interactivity	5	(Animesh et al., 2011; Lee et al., 2021b, 2022a; Yang & Wu, 2009; Yim & Park, 2019)	
Perceived enjoyment	4	(Huang & Qin, 2011; Qasem, 2021a; Yim & Park, 2019; Zhang et al., 2019)	
Perceived socialization	3	(Animesh et al., 2011; Zhang et al., 2017b, 2019)	
Perceived privacy risk	2	(Zhang et al., 2017b, 2019)	
Perceived entertainment value	2	(Kim and Forsythe, 2007, 2008)	
Perceived augmentation	2	(Lee et al., 2021b, 2022a)	
Body ownership	2	(Han et al., 2020a; Yim & Park, 2019)	
Mode of payment	2	(Tandon et al., 2020, 2021)	
Performance expectancy	2	(Huang & Qin, 2011; Qasem, 2021b)	
Effort expectancy	2	(Huang & Qin, 2011; Qasem, 2021b)	
Innovativeness	2	(Calantone et al., 2006; Qasem, 2021b)	
Model's ideal bodies	1	Shin and Baytar (2014)	
Ethnic and body size fit with the model	1	Plotkina and Saurel (2019)	
Ethnic fit with the model	1	Plotkina and Saurel (2019)	
Body Size fits with the model	1	Plotkina and Saurel (2019)	
No ethnic and no body size fit with the model	1	Plotkina and Saurel (2019)	
Challenge	1	Han et al. (2020a)	
Free shipping policy	1	Tandon et al. (2020)	
Vendor specific guarantee	1	Tandon et al. (2020)	
Price value	1	Qasem (2021b)	
Perceived product risk	1	Zhang et al. (2019)	
Perceived transaction risk	1	Zhang et al. (2017b)	
Perceived security	1	Cho and Fiorito (2009)	
Unfavorable body image	1	Yim and Park (2019)	
Utilitarian shopping orientation	1	Lee et al. (2006b)	
Hedonic shopping orientation	1	Lee et al. (2006b)	
Media irritation	1	Yim and Park (2019)	
Technology anxiety	1	Li and Xu (2020)	
Optimism	1	Qasem (2021b)	
Control	1	Han et al. (2020a)	
VTO self-congruity	1	Merle, Senecal, and St-Onge (2012b)	
Body esteem	1	Merle et al. (2012b)	
Physical attributes (size and color)	1	Baytar et al. (2020)	
Virtual body satisfaction	1	Buyukaslan, Baytar, and Kalaoglu (2020b)	
Economic motivation	1	Yaoyuneyong et al. (2018)	
Apparel shopping self-confidence	1	Yaoyuneyong et al. (2018)	
Demographic characteristics (age, gender, and educational level)	1	Ayalp et al. (2016)	
Body types	1	Park, Nam, mi Choi, Lee, and Lee (2009b)	
Fit problems with ready-to-wear	1	Park et al. (2009b)	
Shopping orientation	1	Park et al. (2009b)	
Social influence	1	Huang and Qin (2011)	
Optimum stimulation level	1	Fiore et al. (2005c)	
Experimenting with appearance	1	Lee et al. (2010b)	

Table 10
Moderators, counts, and sources.

Moderators	Counts	Sources
PEEIM (perceived effectiveness of e-commerce institutional mechanisms)	1	Tandon et al. (2020)
Arousal and pleasure	1	Jin et al. (2021)
Habit	1	Tandon et al. (2021)
Perceived augmentation, fit confidence, consumer inspiration	1	Tawira and Ivanov (2023)
Fashion leadership, and technology anxiety	1	Li and Xu (2020)
Haptic imagery, spatial Imagery	1	Liu et al. (2019)
Sales, post-purchase customer satisfaction, the rate of product returns	1	Yang and Xiong (2019)
Body image	1	Yim and Park (2019)
Perceptual curiosity	1	Bin Kim and Jung Choo (2023)
Perceived product diagnostic, perceived telepresence, perceived usefulness, perceived enjoyment	1	Peukert et al. (2019)
Body satisfaction	1	Shin and Baytar (2014)
Playfulness, informativeness	1	Kang et al. (2020)
Technology readiness, time distortion	1	Han et al. (2020a)
Prior experience	1	Song et al. (2020)
Technology anxiety, innovativeness	1	Kim and Forsythe (2008)
Absorption (heightened enjoyment, curiosity, temporal dissociation, focused immersion, perceived usefulness, perceived ease of use)	1	Visinescu et al. (2015)

Table 11
Mediators, counts, and sources.

Mediators	Counts	Sources
Trust	2	(Tandon et al., 2020, 2021)
Store familiarity (high vs low)	1	Jin et al. (2021)
Shopping enjoyment	1	Song et al. (2007)
Perceived risk, enjoyment, expected apparel performance, and appearance self-discrepancy	1	Yang and Xiong (2019)
Attitude toward try-on technology	1	Zhang et al. (2019)
Specific curiosity	1	Beck and Crié (2018)
Fantasy	1	Bin Kim and Jung Choo (2023)
Concern with the fit and size of the garments	1	Shin and Baytar (2014)
Graphic quality	1	Kang et al. (2020)
Telepresence	1	Alzayat and Lee (2021)
Playfulness, usefulness	1	Han et al. (2020a)
Hedonic value (perceived enjoyment) utilitarian value (convenience to examine the product, perceived ease of use, perceived usefulness	1	Plotkina and Saurel (2019)
Telepresence, flow, social presence	1	Animesh et al. (2011)
Sense of body ownership, ownership control, self-explorative engagement	1	Huang and Liao (2017)
Immersion	1	Song et al. (2020)
Perceived functional benefit, perceived functional concern, perceived control, perceived concentration, perceived enjoyment	1	Lee, Xu, and Li (2020)
Perceived (virtual dressing room) informativeness	1	Yaoyuneyong et al. (2018)
Attitude toward virtual try-on image interactivity technology	1	Zhang et al. (2017a)
Telepresence, perceived utilitarian, perceived hedonic value	1	Lee et al. (2022a)

and moderators in their research have produced a variety of findings (Kobayashi et al., 2019).

Table 12
Outcome variables of interest.

Outcome Variables of Interest	Counts	Sources
Purchase intention	9	(Animesh et al., 2011; Baytar et al., 2020; Beck & Crié, 2018; Kang et al., 2020; Song et al., 2007; Watson et al., 2018; Yang & Wu, 2009; Zhang et al., 2017a, 2019)
Adoption intension	4	Lee, Xu, & Li, 2020; Li & Xu, 2020; Qasem, 2021a; Tawira & Ivanov, 2023)
Behavioral intention	4	(Calantone et al., 2006; Cho & Fiorito, 2009; Han et al., 2020a; Lee et al., 2006a)
Repurchase intention	3	(Bao et al., 2021; Tandon et al., 2020, 2021)
Preference for products hedonic attributes	2	(Alzayat & Lee, 2021; Kang et al., 2020)
Attitude toward the shopping technology	2	(Baytar et al., 2020; Plotkina & Saurel, 2019)
Buying intention	2	(Visinescu et al., 2015; Yaoyuneyong et al., 2018)
Intention to use	2	(Huang & Qin, 2011; Park et al., 2009e)
Perceived store attractiveness	1	Jin et al. (2021)
Willingness to patronize	1	Song et al. (2007)
Product uncertainty	1	Liu et al. (2019)
Augmented reality media enjoyment	1	Yim and Park (2019)
Media usefulness	1	Yim and Park (2019)
Consumer creativity	1	Bin Kim and Jung Choo (2023)
Intension to reuse shopping environment	1	Peukert et al. (2019)
Intention to use the virtual try-on model	1	Shin and Baytar (2014)
Market price	1	Laurell et al. (2019a)
Evaluations of fitting rooms	1	Ayalp et al. (2016)
Flow experience, concentration, playfulness, time distortion, exploratory behavior, spending more time on (augmented-reality interactive technology), satisfaction	1	Huang and Liao (2017)
The feeling of ownership, decision comfort	1	Song et al. (2020)
Silhouette, color, texture, fit	1	Shim and Lee (2011)
Post-use evaluation of virtual try-on	1	Kim and Forsythe (2008)
Adoption intention	1	Lee et al. (2022a)

4.8. Outcome variables of interest

The main issue of discussion is the way try-on technology affects online shoppers' purchasing intentions and behavior (Zhang et al., 2019). Research has been done to investigate the relationship between consumer and technological characteristics of try-on technology and the different outcome variables of interest, like attitude toward shopping technology, preference for hedonistic attributes, behavioral intentions, repurchase intentions, and purchase intentions. These variables are widely used in research, especially in the domains of psychology, consumer behavior, marketing, and management information systems. They include purchase intention, adoption intention, behavioral intention, and repurchase intention. Because their predictive value in predicting future behavior is noteworthy since it enables researchers to assess individuals' readiness for behavior. For example, purchase intention can indicate the possibility that a consumer will make a purchase. Strong intentions frequently result in actions, so these intent-based variables are useful in interpreting real behaviors. Early evaluation of these variables allows researchers to identify new trends, obstacles, and factors that affect the intended behavior. These factors are essential for interventions and marketing tactics since shaping intentions is usually more attainable than directly changing behaviors. Understanding consumer intent is essential for making educated

Table 13

Hofstede's national cultural values.

Value Dimension	Description of value	Level National
Uncertainty avoidance (Hofstede, 1980, 1983)	A comprehensive comprehension of human behavior and the process of decision-making can be attained by exploring individuals' self-perceptions of vulnerability and uncertainty when faced with unfamiliar circumstances. This area of analysis holds particular significance in the context of embracing novel technologies. The impact of these emotions on individuals' exploration of unfamiliar domains and their reactions to the constantly changing realm of technological progress is significant. As a result, these underlying emotional factors also have a significant impact on individuals' willingness to adopt and incorporate new technological advancements into their daily routines. Acknowledging and proactively resolving these feelings of vulnerability and unpredictability becomes an essential necessity in promoting technology adoption procedures that are not only more efficient but also more favorable to achieving positive outcomes and overall productivity. By recognizing and effectively addressing these emotional dynamics, we can facilitate a smoother and more prosperous integration of technology across many domains of human activity.	National
Masculinity/Femininity (Hofstede, 1980, 1983)	The evolution of masculinity from restrictive and outdated clichés to a more inclusive and modern concept has significant ramifications for our larger society, especially regarding the acceptance of technology. Societies that place a high priority on traits like accomplishment, assertiveness, and material success are frequently more likely to adopt cutting-edge technology that supports general advancement and economic growth. This transformation in culture is consistent with a heightened willingness to investigate and incorporate novel technical developments, realizing their capacity to propel economic expansion and societal progress. Nevertheless, it becomes crucial to stress the significance of ethics and accountability in the achievement of these goals. As technology permeates more and more aspects of our everyday lives, adopting ethical principles and responsible behaviors is crucial to maximizing the positive effects of technology adoption while reducing any negative effects. We must continue to stay alert and address any ethical issues or concerns to fully utilize technological breakthroughs for the benefit of society. This entails preserving data privacy, encouraging fair access to technology, and making sure that advancements in technology do not conflict with the ideals of diversity, inclusivity, and social responsibility. By doing this, we can ensure that the	National

Table 13 (continued)

Value Dimension	Description of value	Level National
Individualism Vs Collectivism (Hofstede, 1980, 1983)	adoption of new technologies serves the greater good and develops mankind in a responsible and sustainable manner, striking a balance between technical advancement and the well-being of society. The interaction between individualism and collectivism has a big impact on how people interact with and adopt new technologies. Individualists place a high value on one's own objectives and preferences, placing special emphasis on one's own autonomy and agency while making decisions. On the other hand, collectivists put the good of the group first and frequently make decisions that support social harmony, communal cohesiveness, and the larger good. These cultural orientations have a significant impact on how people, groups, and even entire civilizations approach incorporating new technologies into their daily lives. It is crucial for legislators and technology developers to understand and appreciate these cultural factors. This means realizing that there isn't a single, universal strategy for promoting and implementing technical innovation. Individualistic and collectivistic civilizations can differ greatly in their preferences and values, which makes the design and application of technological solutions more specialized and culturally sensitive. Technology developers can produce goods and services that are in line with the objectives and values of other societies by taking these cultural differences into consideration. It entails modifying functionality, user interfaces, and even marketing tactics to appeal to the target audience's particular cultural preferences. By doing this, we can promote technical breakthroughs that truly benefit and resonate with the needs and values of many civilizations, as well as increased acceptance and integration of technology within varied cultural contexts. To put it simply, this strategy promotes a more accepting and peaceful coexistence of technology and culture, which benefits civilizations everywhere.	National
Long-term orientation (Hofstede, 1980, 1983)	The degree to which a person, organization, or country adopts strategic thinking and careful planning is a critical factor in determining their capacity to prosper in the rapidly evolving global technology landscape. In a time of rapid technological innovation and advancement, a nation's, or entity's capacity to stay competitive mostly depends on how well it can strategically position itself for technical excellence. This strategic positioning takes a diverse approach, starting with a careful analysis of the opportunities and difficulties that the technologically advanced world brings. Through a thorough examination of possible routes, recognition of prospects, and comprehension of the always-changing	National

(continued on next page)

Table 13 (continued)

Value Dimension	Description of value	Level National
High context vs. low context (Hall, 1976)	<p>terrain, countries and institutions can make well-informed choices that are consistent with their long-range goals. Another essential component of this strategic strategy is formulating precise, well-defined objectives. These goals work as a beacon of hope, assisting organizations in expressing their goals and devising a plan of action to get there. Entities can better allocate their resources and efforts and make sure that every action they take advances their performance in the technology sector by establishing SMART goals-specific, measurable, achievable, relevant, and time-bound. Moreover, the capacity to make well-informed choices about the deployment of technology is critical. This means weighing the advantages and disadvantages of implementing a particular technology carefully. It entails considering elements like cost, scalability, security, and interoperability with current infrastructure. Countries and businesses may guarantee that their investments produce the required results and maintain their leadership position in technological breakthroughs by adopting technology wisely.</p> <p>The distinct communication styles that distinguish high-context and low-context cultures have a significant influence on how innovations are received in these contexts. Implicit communication, in which meaning is frequently expressed through nonverbal clues, contextual knowledge, and shared cultural understanding, is highly valued in high-context societies. They also place a strong emphasis on group decision-making procedures, emphasizing the value of harmony and unanimity. Modern technology's adoption and integration within these cultures can be greatly influenced by these communication and decision-making patterns. The implicit character of communication in high-context cultures enables new technology to be deeply aligned with the dominant cultural values. Innovations that are easily assimilated into the social structure and conform to cultural norms are more likely to be welcomed. This is so that changes are smoothly incorporated while upholding the culture's collective identity and traditions, thanks to the implicit nature of communication. It becomes essential to recognize and accommodate these various communication styles to promote successful technology adoption and collaboration across cultural divides. This flexibility is essential for negotiating the complicated global environment. By being aware of the subtle differences between high-context and low-context communication, people and organizations may customize how they accept technology and make sure that</p>	National

Table 13 (continued)

Value Dimension	Description of value	Level National
	<p>new developments align with the expectations and cultural values of their intended audience. Understanding the need to adjust to various communication styles helps promote cross-cultural cooperation and innovation, in addition to easier technology integration. By doing this, we foster a global community in which many cultures may preserve their distinctive identities and customs while simultaneously benefiting from technological improvements. In the end, this flexible strategy creates a more harmonious and inclusive global technology environment.</p>	

decisions in the fields of marketing and business, allowing companies to modify their strategies to suit the tastes and requirements of their target audience. For example, using the Partial Least Squares model, for instance, offers insightful information about how consumers' opinions about this technology influence their choices while making online clothing purchases (Song et al., 2007). It's evident that different age groups have different attitudes toward try-on technology; younger people seem to be more open to it, while adults are more hesitant. In the world of online shopping, try-on technology is essential since consumers who value it more are more likely to make purchases. This emphasizes how important it is to provide a satisfying try-on technology experience to encourage online sales (Baytar et al., 2020). The study highlights the significance of components in online interfaces, such as interaction, graphic quality, and visual-spatial cues, to improve the online buying experience within the context of online fashion retail and encourage repeat business. These factors have a direct impact on the choices that consumers make when they shop online, influencing their inclinations for both entertaining and useful product features and, ultimately, their propensity to make a purchase (37). Online shoppers are becoming more aware of how helpful augmented reality is for determining product fit and lowering the likelihood of post-purchase discontent (Cho & Fiorito, 2009). Notably, studies show that try-on technology influences consumer sentiments and purchase intentions favorably, especially for those who feel a high degree of telepresence (Zhang et al., 2017a). Like in-person try-on experiences, augmented reality evokes reactions to clothing and buying intent. Moreover, those who express a stronger sense of virtual presence are more likely to react positively and show a higher propensity to buy. These results highlight how try-on technology works to introduce styles, improve consumer perceptions of products, and eventually increase sales, especially when users enjoy a memorable telepresence experience (Han et al., 2020a).

5. Research gap and future research

5.1. Technological challenges

5.1.1. Existing issues in the TOT

There are several problems with try-on technologies that have not yet been solved, according to recent research. These problems include, among others, a lack of capability for comparing and sharing looks, a lack of try-on possibilities for a variety of products, and consistency in the try-on products.

5.1.2. Limited try-on options

Try-on technology's major objective is to give users a shopping experience that is comparable to that of a real store, where they can try on several items at once. The alternatives that the existing try-on devices

Table 14
Kelman's social influence dimensions.

Forms of Social Influence	Description of value	Source
Internalization	People frequently gravitate toward ideas and actions that match their firmly held personal values and convictions. There is an inherent link between a person's behaviors and their underlying principles, which is visible in many facets of life. People may be more likely to adopt cutting-edge technologies like try-on technology, for instance, if they feel that it offers a variety of advantages and perfectly meshes with their beliefs. The ideals of convenience, informed choice, and sustainability are aligned with try-on technology, which allows people to sample things before making a purchase. Therefore, incorporating try-on technology into one's shopping routine is more than just a passing fad; it is a sign of the connection between individual values and cutting-edge solutions. People who effortlessly incorporate technology into their lives not only make their everyday tasks more effective but also support larger societal objectives like resource conservation and waste reduction.	Kelman (1958)
Identification	Social dynamics have a complicated and multidimensional effect on how people behave and make decisions in groups. When trying technology, it becomes clear that this technology is not only a useful tool but also a way for people to create and preserve their sense of self in the context of their social relationships and affiliations. In essence, the adoption of try-on technology is closely entwined with a person's desire to successfully manage the complex web of social interactions and connections. By adhering to group standards and allowing for individual expression within those restrictions, it functions as a tool for the creation of self-identity. People who use this technology are involved in a fine balance between conformity and individuality as they work to build and preserve their sense of self in the context of their social connections.	Kelman (1958)
Compliance	An individual's tendency to align their ideas, attitudes, and behaviors with those of a larger group or with prevalent social standards is referred to as conformity, a psychological phenomenon. It frequently results from a variety of motivations, such as the need to blend in, get acceptance from others, stay out of trouble, or preserve one's good reputation. Conformity plays a crucial role in the adoption of try-on technology because people may choose to utilize it to avoid social rejection or negative judgment rather than necessarily because they agree with its message.	Kelman (1958)

can offer, however, are constrained. For instance, users cannot design a pair of matching rings and try them on all fingers, nor can some beauty items be tried in various appearances. Users should be able to utilize several products at once and compare them, just like they can in a physical store, to address this. Fashion firms may find it difficult and expensive to incorporate this feature, but it should enable users to test any product on any part of the body, such as any finger with a ring on it.

5.1.3. Try-on products inconsistency

Customers anticipate that a virtual try-on option will be available for all products when a brand offers it. But several Charlotte Tilbury and F. Hinds customers have complained that they can't try on some of the things they're interested in, and the companies haven't offered an explanation. In a similar vein, users on Candere can try on necklaces but

Table 15
Practical implications.

Focus	Future Research Questions
Antecedents (Technological Factors)	<ul style="list-style-type: none"> • How do technological aspects like the sophistication of image interaction and virtual try-on technologies affect consumer acceptance and pleasure in virtual changing rooms? • What impact does innovation have on consumers' propensity to use virtual changing rooms and how they perceive their shopping experience as a whole? • In virtual fitting rooms, how can virtual fabric qualities affect customers' opinions of how clothes fit and their propensity to buy? • How do return policies relate to consumer trust and confidence while using virtual fitting rooms? • How do various payment methods affect consumers' adoption and use of virtual changing rooms? • What are the main factors influencing consumers' adoption of virtual fitting room technology? How do they affect performance expectancy and effort expectancy? • How do consumers' feelings of immersion and happiness differ depending on how much physical control and self-location they feel they have in virtual changing rooms? • What role can haptic visuals and technological visibility play in boosting the consumer's virtual fitting room experience and buying intentions? • How is the perception of garment fit and attractiveness in virtual fitting rooms affected by elements like telepresence and the alignment of the model's ideal and virtual bodies? • How do virtual try-ons for full appearance fit based on augmented reality impact consumer choice and product satisfaction? • What aspects of the virtual model fit with customers' perceptions of their ethnicity and body types? • How does the lack of body type and ethnicity in the virtual model affect the use and efficacy of virtual fitting rooms? • How do free shipping, vendor-specific warranties, and price-value policies affect customer satisfaction and conversion rates in virtual changing rooms? • How are consumer engagement and conversion rates impacted by the inclusion of virtual changing rooms on a retailer's website as opposed to a separate VR retail environment? • How are consumers' preferences for virtual changing rooms influenced by aspects like density, stability, and total value (which includes technology, network, pricing, and trialability)? • What impact do visual characteristics (style, garment details, and item coordination) have on how customers perceive and prefer products in virtual fitting rooms? • How can the integration of virtual fitting room technology into the environment and its interoperability with current retail systems be optimized to improve the customer experience? • What is the balance between perceived risk and practical usefulness in virtual changing

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Table 15 (continued)

Focus	Future Research Questions
(Consumer Factors)	<ul style="list-style-type: none"> rooms, and how does it affect consumer adoption? • What favorable conditions, such as tech support and device compatibility, are required to entice customers to adopt virtual changing rooms? • How do the perceived value and usability of virtual changing rooms affect customer satisfaction and adoption? • What part do perceived delight and perceived interaction play in how consumers feel about virtual changing rooms? • What effects do perceived privacy risk and perceived socializing have on customers' propensity to use virtual fitting rooms when shopping for clothes? • What elements affect how the entertainment value and perceived improvement of the purchasing experience are regarded in virtual fitting rooms? • How do consumer choices and preferences for apparel in virtual fitting rooms differ depending on body ownership in virtual environments? • What impact do perceived transaction risk and product risk have on consumer confidence in virtual fitting room technology? • What can be done to allay real or imagined security worries so that more people use and embrace virtual changing rooms? • How does poor body image affect people's propensity to shop for clothes online and use virtual fitting rooms? • What are the distinctions between consumers who shop with a hedonic orientation and those who shop with a utilitarian orientation in virtual changing rooms? • How do technological apprehension, media annoyance, and optimism affect consumer use of virtual fitting room technologies? • When using virtual fitting rooms, what level of control do consumers want, and how does it affect their satisfaction and decision-making? • What impact does VTO self-congruity have on consumers' opinions of how clothes fit and if they are likely to buy something in virtual fitting rooms? • What connection exists between body satisfaction in virtual fitting rooms, physical characteristics (size and color), and self-esteem? • How do monetary motives and customer confidence in clothing buying impact consumer uptake and spending patterns in virtual fitting rooms? • Are there appreciable variations in the use of virtual changing rooms depending on demographic factors like age, gender, and level of education? • How do the preferences and pleasures of customers in virtual fitting rooms vary according to their body types? • What approaches may be taken to deal with fit issues in virtual fitting rooms for ready-to-wear clothing? • What impact does the hedonic or utilitarian nature of a consumer's buying orientation have on how they interact with virtual fitting room technology? • What part does social pressure play in enticing customers to try out virtual changing rooms?

Table 15 (continued)

Focus	Future Research Questions
Research Gap Contemporary challenges with try-on technology Effectiveness of Try-On Products Accept Innovative Solutions Keep cultural values in mind Recognize social influence	<ul style="list-style-type: none"> • How can the idea of the optimum stimulation level be used to improve the satisfaction and experience of the virtual changing room? • What drives and justifies consumers' experimentation with changing their appearance through virtual fitting room technology? • How might the comparing and sharing capabilities of virtual try-on technology be improved? • How can we increase the selection of goods that are accessible for virtual try-on experiences? • How can companies guarantee that alternatives for virtual try-ons are consistently available for all their products? • What potential advantages and efficacy can customized solutions for virtual try-on technology have? • How can companies encourage technological adaptability to changing market conditions? • How can try-on technology strategically support overarching company goals? • How do national cultural values affect customer preferences for try-on technologies in various regions? • How might cultural contrasts like individualism/collectivism and masculinity/femininity be included in the design and marketing of try-on technologies? • How can internalization, identification, and compliance social influence characteristics be considered when promoting try-on technology adoption?

not bracelets.

5.1.4. Comparison and sharing functionality lack of look

A UX audit found that try-on technology's comparison and sharing features are often deficient. Users find it difficult to compare products and limit their choices. Users of Ray-Ban and F.Hinds find it difficult to compare items, while Charlotte Tilbury has no choice but to do so. To enhance the comparing and sharing capabilities of try-on technology, brands must include tools that let consumers compare photographs side by side with ease, share the fitting room experience in real-time via voice and video, and display a few looks on a scrolling list or screen.

5.1.5. New try-on solutions negligence

The current study on try-on technology has investigated how customer traits and technological factors affect engagement. However, the results have been conservative and constrained, and they haven't considered some of the most recent solutions that are now being tested on the market, such as customized solutions, flexible technology, business alignment, and a more all-encompassing strategy.

Software that is specially made to meet the unique requirements of customers is referred to as bespoke solutions for virtual try-on technology. With this strategy, the consumer is put first, and effective solutions that address their demands are created. It makes sure that the solution is in line with the business strategy and enterprise architecture landscape while considering the customer's primary requirements. One advantage of custom software is that it only includes the functionality that is required, giving a business a competitive edge. The effectiveness of bespoke solutions in guiding and influencing consumer buying decisions, however, is still not well understood.

Companies need to be flexible and adaptable due to the shifting business environment. Technological flexibility is a collection of

processes intended to create outputs that are specifically tailored for certain clients or markets. Businesses should have the freedom to select technology that supports their aims and objectives. This may lead to more efficient use of resources and quicker delivery of goods and services.

To fully utilize the advantages of try-on technology, fashion firms should connect their business objectives with it. They can achieve this by taking a holistic approach that considers how each process component interacts with the others. They can create a complete strategy by recognizing issues and thoroughly comprehending the circumstances. To accomplish their business objectives, companies can, for instance, use ecosystem research, service blueprinting, customer value proposition development, fresh design, machine learning-backed ideas, and data analytics.

5.2. Dimensions of national cultural values that impact the usage of try-on technology

The impact of national cultural values on global try-on technology is not thoroughly explored in the current literature in the management information systems area. This underscores the need for future research to address deeper connections about cultural factors to close the knowledge gap between nations and businesses.

5.2.1. Culture

Culture includes understanding this complicated concept's numerous meanings, interpretations, and characteristics. The visible manifestations and goods that serve as its most obvious representations serve as a window into culture (Leidner & Kayworth, 2006). In addition to art, technology, and observable actions, these concrete manifestations also include mythology, renowned individuals, language, customs, and ceremonial rituals. To understand these objects' deeper cultural meaning, their interpretation can be extremely difficult. It's important to stress that some objects, like information technology, are not completely free of cultural impact and can have a wide variety of meanings depending on their underlying assumptions, how they are used, and the implications that follow (Hofstede, 1980).

5.2.2. Cultural values

A person's belief system on relationships, truth, reality, and human behavior is referred to as their culture. Belief systems have an impact on people's schemas about the world, and culture has a significant impact on how people behave in social situations (Leidner & Kayworth, 2006). Individualism/collectivism, masculinity/femininity, uncertainty avoidance, power distance, long-term presentation, and the context introduced by Hall (Hall, 1976) are among the five dimensions included in (Hofstede, 1980, 1983)'s conceptualization of national cultures (Hall, 1976; Hofstede, 1980, 1983). Cultural values help differentiate one group from another. Based on their geographical areas, various nations have unique sets of values (Leidner & Kayworth, 2006). Research on national cultural values, however, is limited to a few, as when deciding how a specific social group within a given country interacts with information technology, national cultural values play a significant role. Whereas some studies have concentrated on the qualities of the technology or system and others have concentrated on individual consumer traits. The literature on management information systems has already delved deeply into national cultural values. Current management information system literature briefly mentions national cultural values but does not explore their impact on global try-on technology. This study gap highlights the need for future studies to explore complex relationships and address unexplored factors and cultural variables. Recognizing this gap acknowledges research limitations and urges further study. Understanding cultural nuances in management information systems requires a holistic approach with practical implications for organizations and governments, driving action to bridge the gap between knowledge and practice.

For example, a previous study emphasized the significance of cultural values in comprehending how people of other nations use technology (Lee, Xu, & Li, 2020). Future research on this subject ought to go into more detail and investigate the application of national cultural values to comprehend consumer behavior and preferences regarding try-on technology. Businesses can tailor try-on technology features to match the unique wants and requirements of customers in various nations by considering national cultural values, potentially boosting customer engagement and satisfaction. Businesses can view this strategy as a customer-centric approach that adds value by considering cultural preferences and values.

5.3. Dimensions of social influence

Another element that may have an impact on a person's behavior and technology use is social influence. According to numerous social influence models with related constructs, a person's behavior may depend on how other people perceive their use of technology (Kelman, 1958). In other words, a consumer may employ try-on technology based on reviews from other users. Internalization, identification, and compliance, which are correlated with group norms, social identity, and subjective norms, are the three elements of social influence that can be broken down. In addition, social media networks encourage connection, dialogue, and the production of user-generated content to help users make online purchases (Liu, Chu, Huang, & Chen, 2016). Social commerce stands out for its capacity to provide consumers with the power to make educated purchasing decisions and improve their future shopping experiences. Social commerce platforms should promote member engagement and interaction to do this. The overall adoption experience is seen to be improved by frequent member contacts, which also strengthens interpersonal relationships. In essence, social commerce strives to assist customers in making better buying decisions and having a more enjoyable shopping experience by utilizing social media and user involvement (Islam, Sheikh, Hameed, Khan, & Azam, 2018).

5.4. Proposed theory

5.4.1. Goal contagion theory

First, it was proposed by Aarts et al. (Aarts, Gollwitzer, & Hassin, 2004). The goal contagion theory refers to the phenomenon wherein individuals spontaneously accept and pursue objectives that they witness in others, with the explicit intention of reaching those same goals (Kim, Duhachek, Herd, & Kim, 2022; Laurin, 2016; Lee, Shin, Li, & Kwon, 2016). In contrast to alternative ideas of goal formulation, the goal contagion theory posits that individuals inherently and instinctively embrace and pursue objectives without deliberate cognitive processes or active engagement. Furthermore, goal contagion is perceived as a phenomenon in which individuals acquire or "contract" goals through the observation of others' actions. The formation of social perception is heavily influenced by the larger contexts in which individuals are situated, and these contextual elements have a substantial impact on their comprehension and acceptance of these objectives (Nair, Shiva, Yadav, & Tandon, 2022).

The goal contagion theory is an effective instrument in behavioral research to investigate the effects of adopting digital technologies at different times. Two important factors that affect goal contagion are other people's behavior and the situational context. Goal contagion is a prominent idea in information systems (IS) research that provides insights into the adoption dynamics of novel information technologies.

In this section, we present a brand-new idea that we developed by examining the body of research on try-on technology adoption. Consolidated components from the literature review serve as the foundation for this theory. Recognizing that comprehending consumer adoption behavior necessitates investigating how attitudes and beliefs emerge, we utilize goal contagion theory to provide a complete model for consumer adoption behavior regarding try-on technology.

It is suggested that goal contagion theory explores the dynamics of regular social contacts. The authors make the claim that people constantly work for comparable goals through a variety of behaviors, with an emphasis on the unintentional pursuit of objectives in social contexts such as organizations and schools (Aarts et al., 2004). This theory suggests that an individual's social environment has a facilitative role in self-regulation by highlighting the function of context-driven goal contagion. When people have similar situational circumstances, they can understand and apply each other's experiences to their own goals. The goal contagion theory is a valuable tool for comprehending goal-setting behaviors, particularly in people who have little experience with the goal in consideration.

The theory facilitates understanding how environmental and social cues affect consumers' inclinations to embrace try-on technology. According to the theory, social factors, such as the behaviors of others, greatly influence the intention to adopt innovative technology. Seeing others work toward the same goals teaches people that these endeavors may bring fulfillment and enhance social interaction and cooperation (see Fig. 10).

The suggested theory comprises three parts: (a) social influence, also referred to as others' behavior; (b) situational context, encompassing national cultural values and existing technical problems in try-on

technology. National cultural values are considered as situational context because situational context encompasses a broad range of factors, including immediate circumstances and individual differences, recognizing the role of national cultural values within this context provides a foundational understanding of why people from a particular culture may behave the way they do. This perspective promotes cultural intelligence and facilitates more effective and respectful interactions across diverse cultural settings. (c) Adopting innovative IT can be known as adopting try-on technology. This idea is named in Fig. 11 As a conceptual model of (try-on technology), based on goal contagion theory and the following paragraphs provide a detailed explanation of its specific model (see Fig. 2).

5.4.1.1. Others behavior. The goal contagion theory suggests that people subconsciously acquire and follow the same goals as those around them, influenced by their peers. These factors have a direct bearing on how consumers feel about trying out new technologies. The existing work on the topic of try-on technology adoption focuses just on technological and consumer factors but in our conceptual model, we suggest that social factors such as internationalization, identification, and compliance play an important role in shaping the adoption of try-on technology.

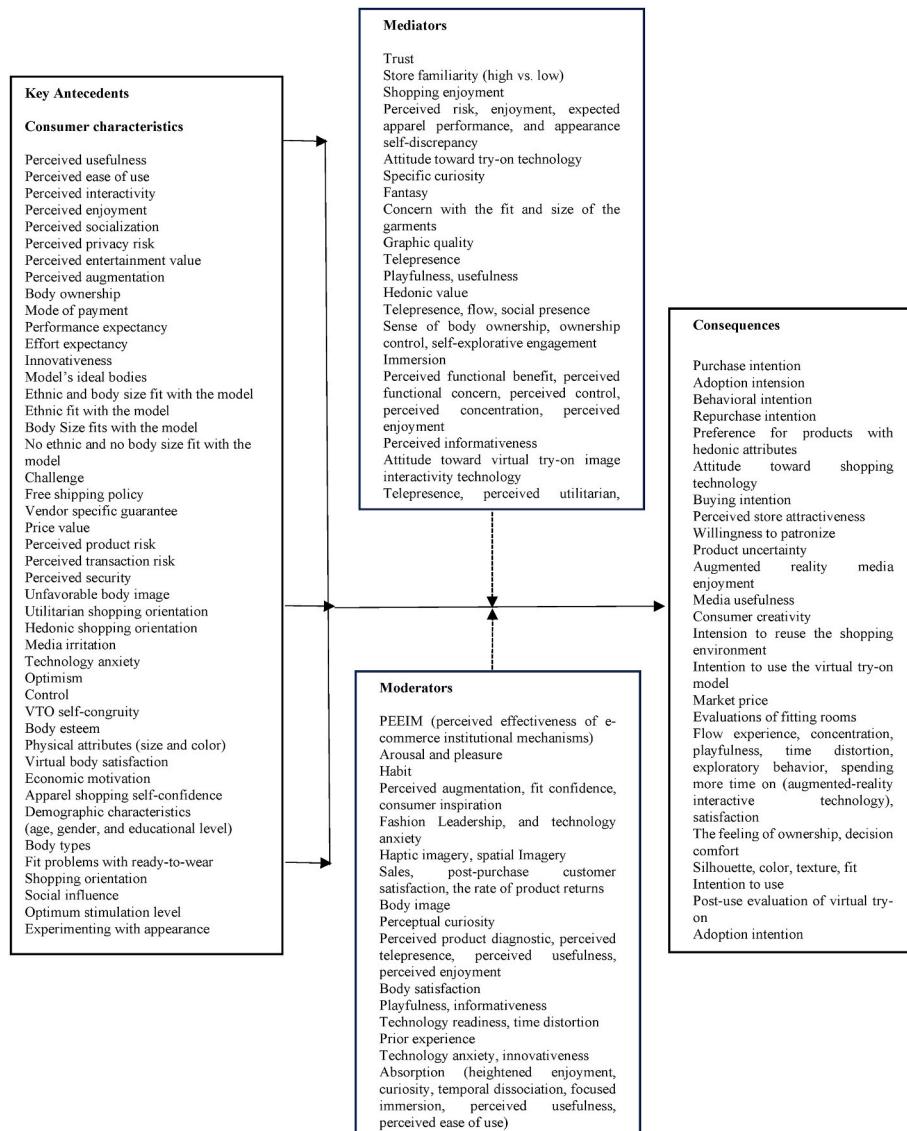


Fig. 10. Conceptual model based on consumer factors.

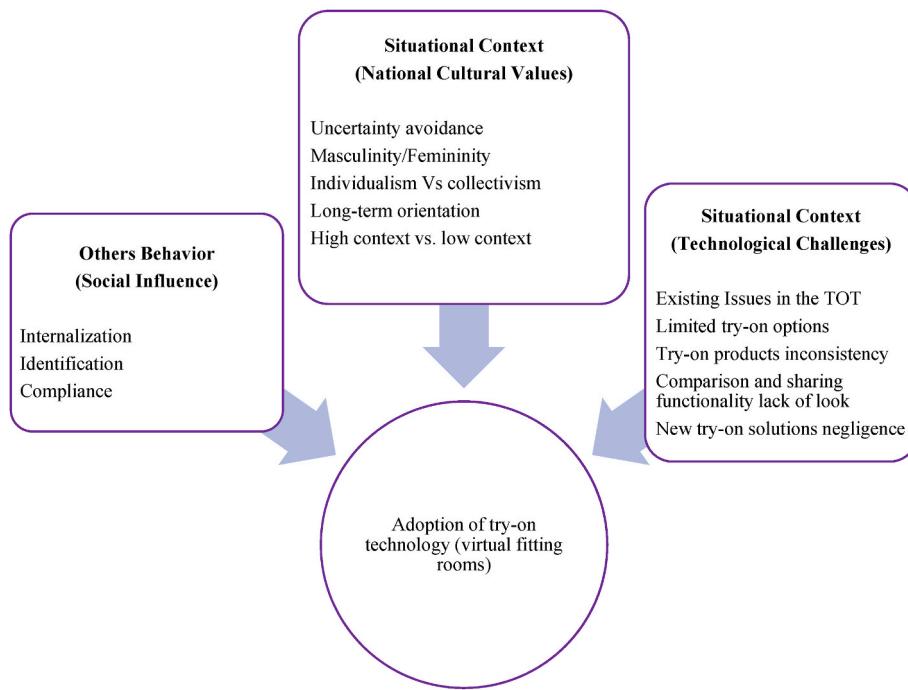


Fig. 11. Conceptual Model of (try-on technology) Derived from Literature Review Analysis Based on Goal Contagion Theory.

5.4.1.2. Situational context. Technical issues (such as technical issues in the try-on technology, a lack of products to try on, inconsistencies among products, and a poor comparison and sharing system) and the influence of national cultural norms (such as uncertainty avoidance, masculinity/femininity, individualism/collectivism, and short-term vs. long-term orientation, and high context vs. low context) are all part of the larger contextual environment that impedes the successful implementation of try-on technology. Situational context refers to the external factors that influence a person's choices or behaviors. Both technological factors and national cultural norms influence people's decisions about whether to adopt try-on technology.

5.4.1.3. Adopting innovative IT/goal contagion. Adoption of try-on technology is the process of incorporating cutting-edge information technology into routine tasks with the aim of digitally replicating the experience of trying on clothes before making a purchase. This process, categorized as “adopting innovative IT,” aims to integrate and adopt new technology to enhance the online shopping experience for consumers in the fashion industry.

6. Discussion and conclusion

From January 2005 to February 2023, our study looked at the literature on try-on technology in the context of fashion. The publication venue for the surveyed research on try-on technology in the fashion sector, particularly apparel, is shown in Table 4. Between 2005 and 2016, empirical research on try-on technology was not anticipated. The fashion industry only started to seriously evaluate empirical data on try-on technology in 2017. This agenda has significantly picked up steam in recent years, with a pronounced increase trend from 2018 through 2023 (this trend will continue to rise). The existing body of research pertaining to try-on technology exhibits a deficiency in providing a full examination of technological considerations, social impact, and cultural significance. To tackle these issues, the study puts up a number of research inquiries: To fill this gap, we suggest the following research questions: 1) What similarities and differences are evident in the try-on technology literature regarding regions, research methods, and topics? 2) What are the theories, frameworks, and models adopted by studies

considering try-on technology? 3a) What are the key antecedents in try-on technology research? 3b) What are the key outcome variables of interest in try-on technology research? 4) What research gaps are evident within the extant literature on try-on technology?

The objective of this study is to classify and assess prior research conducted in the fields of marketing and information systems, specifically pertaining to try-on technology. The study endeavors to acquire a full comprehension of consumer utilization of try-on technology, given its status as an emerging topic with a multitude of data derived from distinct research approaches. The primary objective of this initiative is to enhance the whole online shopping experience within the fashion business. This entails minimizing the number of returns, addressing existing gaps, and offering valuable insights into national cultural values, social impact, and the technological obstacles associated with the adoption of fashion-related technologies.

There are similarities and differences in the regional literature on try-on technology. One similarity is the increase in research activities since 2017 in countries like the United States, China, India, and South Korea. The United States stands out, however, as the field's undisputed leader, having published 30 articles on the subject. While other Asian and European countries contribute less, China, India, and South Korea do so on a substantial level. In contrast to publication tendencies in other regions, most research articles from the United States were published between 2019 and 2023, showing a recent boom in activity. In conclusion, the try-on technology literature shows similar growth trends and active research in countries like the United States, China, India, and South Korea, but there are clear differences between the United States' pre-eminence and the involvement levels of other countries, particularly in Asia and Europe. Quantitative techniques, with an emphasis on numerical data and statistical analysis, predominate in the literature on try-on technology. Common methods of gathering information include surveys and experiments. Cross-sectional surveys are used over longitudinal research for evaluating interactions with try-on technologies over limited periods of time. Backward translation is a technique used to translate measuring scales in non-English-speaking regions with the goal of establishing construct validity and allowing study comparisons. This method has only been used in a small number of studies; it is by no means common in research literature. Many different types of research

on consumer behavior and the uptake of virtual try-on solutions may be found in the literature on try-on technology. The research investigates a wide range of topics, from evaluations of technical aspects to worries about garment fit, emotional responses, visual interactivity, the effectiveness of e-commerce, and the cultivation of trust. Scientists also delve into personal traits, bodily types, and alterations. Virtual try-on research is a broad area because it examines many facets of consumer behavior and the use of technology to simulate actual purchases.

The following theories underpin try-on technology research: Stimuli, Organisms, and Responses framework. This Mehrabian and Russell paradigm is used to understand consumer behavior in virtual try-on settings by analyzing how environmental signals affect people's behaviors and thoughts. Davis et al.'s Technology Acceptance Model (TAM) assesses virtual try-on tools' perceived ease of use and utility. The second edition of the Unified Theory of Technology Acceptance and Use The impact of performance expectations, effort expectations, social influence, and enabling conditions on technology adoption is examined in UTAUT2. Researchers use it to study the spread of virtual try-on systems. These ideas have strong empirical support, scientific support, and practical consequences for try-on technology, which researchers like adopting.

Considering the technology and consumer-related factors, the following are the most strongly supported and important precursors: Image Interactivity Technology (IIT) plays a crucial role in determining consumer emotions and perceived value by influencing elements including telepresence, instrumental value, experiential value, and consumer response. IIT characteristics have a big impact on how people perceive danger, how they shop, and whether they accept online retailers. The three essential TAM components such as perceived usefulness, ease of use, and enjoyment have a significant influence on consumer attitudes and intentions. Innovativeness has a significant impact on performance expectations. The adoption of VTO technology is strongly impacted by hedonism, pricing perception, and performance expectations. Visual-spatial cues and graphics quality significantly increase the perception of playfulness and informativeness; in 2D displays, graphics quality is more important than in 3D virtual reality environments. It is recognized that the provision of virtual try-on technology, pay-on-delivery (POD), return policies, and free shipping are important and crucial in building confidence. Research examines how try-on technology affects online shoppers' attitudes regarding shopping technology, hedonistic preferences, and inclinations to buy or repurchase. These variables are crucial in psychology, consumer behavior, marketing, and management studies. They predict future conduct and indicate action preparedness. Making informed marketing and commercial decisions requires understanding customer intentions to customize strategies. The Partial Least Squares model shows age-related differences in opinions toward try-on technology, emphasizing its relevance in online shopping and the need to deliver a satisfying experience to boost sales.

In try-on technology literature, research gaps include difficulties comparing and sharing capabilities, limits on testing numerous goods, product accessibility issues, and appearance issues. Future studies should investigate novel ways and assess their efficacy. Technological adaptability and corporate purpose alignment are crucial. Addressing these gaps would improve understanding of try-on technology and its effects on online purchasing and customer behavior. Current research has limited insights into how national cultural values affect technology uptake and consumer preferences. There has also been little research on how cultural values affect technology adoption, which could boost user engagement. There is very little research on connecting try-on technologies with varied cultural preferences to improve user pleasure and engagement. Future studies should use national cultural values to identify customer preferences and design culturally adapted features to fill these research gaps. Addressing these research gaps can help firms understand cultural aspects that affect try-on technology, improving user happiness across cultures. Researchers need to do more in-depth studies on the effects of social media on try-on technology adoption,

the relationship between try-on technology adoption and personal values, the role that self-identity plays in technology adoption in social settings, and the lack of comprehensive research on how social influence influences technology adoption. Our understanding of the multifaceted nature of social influence and its relationship to group norms and personal values in the context of try-on technology adoption is one area of research that needs to be addressed. Examining these areas will improve our understanding of user behavior and preferences when it comes to try-on technology.

6.1. Implications

6.1.1. Theoretical implications

There are several important new insights gained from this comprehensive study of the factors that encourage the use of try-on technology. First, it's notable for being one of the first reviews to examine the variables that facilitate or impact the adoption of try-on technologies. The review goes into social aspects like identification, compliance, and internalization, as well as cultural aspects like uncertainty avoidance, masculinity/femininity, individualism/collectivism, long-term orientation, and high context/low context. Additionally, it takes on technological issues including TOT challenges, a lack of visual appeal, inconsistent try-on goods, insufficient try-on alternatives, the inability to compare and share, and the disregard of novel try-on solutions. In contrast to previous research studies on AR and VR adoption, this one focuses on the domain of try-on technology adoption and identifies antecedents, mediators, moderators, and crucial outcome variables.

The second purpose of the review is to point researchers in the direction of understudied variables and potential areas for future research. For example, it points out that this field needs further research on negative outcome variables. To address the previously stated technological challenges, such as current problems with TOT, a lack of variety in try-on options, inconsistent try-on products, an absence of visual appeal, and a lack of attention to new try-on solutions, researchers need to conduct additional research to improve the literature on the adoption of try-on technology.

Thirdly, the review demonstrates that, despite years of investigation, researchers still heavily rely on many hypotheses. Additional research is required to fully understand the factors that influence the adoption of try-on technologies. Researchers have employed various theories, such as Uses and Gratification, S-O-R, Signaling Theory, UTAUT2, TR, TAM, Flow, Utilitarian and Hedonic Theories, Risk, Virtual Liminoid, C-E-V, Schema, Grounded Cognition, Consumer Mental Imagery, TRA, and Habituation-Tedium, to understand the factors that influence the adoption of try-on technologies. Studies that modify these theories for research and analysis are scarce, even if new theories like Goal Contagion Theory have come along.

Finally, the review comes to a full theory for the use of try-on technology by putting together results and conclusions from 80 papers that look at factors that affect or allow try-on technology from both the consumer and technology points of view. Contributing to the existing body of knowledge in this area, the suggested theory, "goal contagion theory," provides a possible theoretical framework for gaining a better understanding of the try-on technology adoption process.

6.1.2. Practical implications

The deployment of try-on technology applications in the fashion context is already common. This behooves managers, practitioners, and researchers to consider best practices for the design, implementation, and research of try-on technology. This study finds the gaps and contributes to the impact of factors such as existing technical issues, national cultural values, and social influence on try-on technology adoption in the fashion context. "We thus provide several practical suggestions for managers to design and implement and future questions for researchers to motivate try-on technology adoption. To address the prevailing technological obstacles in the realm of try-on technology, it is

advisable for fashion businesses to spend money on augmenting their try-on tech skills. This involves enhancing functionalities for the comparison and sharing of diverse appearances, expanding the assortment of products suitable for virtual try-ons, and guaranteeing reliable availability of these try-on items. The key point should be the prioritization of technology development that enables consumers to engage in simultaneous experimentation with many goods, such as coordinating matching products or trying various appearances for cosmetic items. Although there may be challenges associated with this, it has the capacity to greatly enhance the user experience and increase engagement.

Managers should additionally contemplate the exploration of flexible and customized solutions for virtual try-on technology. Customized solutions that are specifically built to address the unique requirements of clients and are in line with their business plans have the potential to enhance the effectiveness of technology. Custom software creation ensures that the solution encompasses solely the fundamental elements, affording firms a competitive edge. However, it is necessary to undertake additional research to acquire a more comprehensive comprehension of the influence of customized solutions on consumer buying behavior. Fashion firms should effectively incorporate try-on technology into their business objectives by adopting a comprehensive approach. This comprehensive strategy involves understanding the interplay between different components of the technology, identifying, and resolving current challenges, and incorporating various elements such as ecosystem research, service blueprinting, the creation of customer value propositions, innovative design, machine learning-supported ideas, and data analytics. The utilization of this integrated strategy facilitates the attainment of organizational objectives and promotes the widespread implementation of try-on technology.

It is imperative for managers to consider the impact of national cultural norms on consumer preferences and behaviors in relation to try-on technology. Considering the significant influence of diverse cultural values on individuals' technological interactions, it is imperative to customize the attributes of try-on technology in accordance with these cultural inclinations. The use of a customer-centric approach serves to augment consumer involvement and satisfaction by embracing a diverse range of cultural values and preferences. Moreover, social influence significantly impacts the formation of consumer behavior. Hence, it is imperative for managers to proactively foster user engagement and interaction on platforms such as social media and social commerce. The use of platforms that enable the creation of user-generated information, reviews, and interactions can effectively support users in making well-informed purchasing decisions and enhance their overall shopping experiences. This approach facilitates heightened user involvement, cultivates human connections, and exerts a beneficial impact on the acceptance and utilization of try-on technology.

Therefore, it is advised that fashion enterprises spend their efforts on enhancing try-on technology, prioritizing aspects such as look comparison, growing the assortment of products available for virtual try-on, and improving the overall user experience. It is imperative for managers to investigate tailored solutions, establish congruence between technology and organizational objectives, and duly consider the ramifications of cultural values. In addition, the cultivation of user interaction on social platforms is of paramount importance in enhancing user adoption and competitiveness and effectively addressing the evolving demands of the digital age. The utilization of these strategies is crucial for fashion firms to maintain competitiveness and effectively adapt to the changing demands of customers in the digital era.

7. Limitations and future research

This systematic literature review analyzes eighty articles published in marketing and information systems publications on try-on technology. The review classifies the literature according to publication year and geographical region. It examines various aspects of TOT, including theories, antecedents, moderators and mediators, outcomes, and

findings. Based on the evaluation, a conceptual model and research gap for try-on technology are proposed to further the field's research.

Nonetheless, it is essential to recognize the limitations of this investigation. First, the articles included in the review are culled from a limited number of databases, which may not represent the entire body of literature. Second, research on TOT is expanding rapidly, and this review may not include articles that are presently being reviewed or are in the process of being prepared. The study addresses the knowledge divide briefly but does not provide a thorough analysis. This systematic literature review on TOT, despite this, seeks to provide a useful summary of the current state of research and future research directions.

Declaration of competing interest

The authors declare that they have no conflict of interest.

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