Augmented reality technology Influence on impulse buying behaviour: Mediating role of Brand Engagement through MyGlamm App.

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ABSTRACT:
Augmented reality technology is a multi-sensory experience which mixes the actual environment with computer-generated content. Smart technology, such as smart appliances or smartphone apps, have largely taken over modern lifestyle. Many organizations have started implementing augmented reality applications due to technical advancements for improved consumer experiences. This study set out to determine how an augmented reality technology features affected participants' desire to make an online impulse purchase. The study lists interaction, vividness and enjoyment as three aspects of an AR experience. We examined 333 customers' experiences in the western region of India utilizing an AR application for virtual try-on of MyGlamm brand cosmetics using a likert-style survey. A variance-based-structural-equation-modelling method via Smart PLS was used to explore the hypothesized connection between all variables. The findings showed that augmented reality features influence customers to make online impulse purchases. Brand engagement serve as a viable mediator for the augmented reality experience to have positive effect on online impulse buying behaviour. Interactivity, vividness and enjoyment positively influence brand engagement leading to online impulse buying behaviour and brand engagement also positively influence online impulse buying behaviour. The work contributes to the existing body of knowledge, how augmented reality's effects on consumers' involvement with cosmetic brands and their purchasing behaviour by studying the idea of technological innovation in the context of new media environment. The results provides insights to the marketers and carrier service operators about the use of augmented reality technologies.

Keywords: Augmented reality technology, Impulse buying behaviour, Brand Engagement, MyGlamm, Interactivity, vividness, enjoyment, hedonic value

1. INTRODUCTION:

Augmented reality (AR) is the term for digital information integrated with the actual environment. AR has emerged as a successful, immersive tool for providing detailed product information (Vonkeman, Verhagen, & Dolen, 2017) (Jung, Chung, & Leue, 2015). With the help of augmented reality (AR), consumers may virtually place things around their homes or on themselves to experience the real world (Verhagen, Vonkeman, Feldberg, & Verhagen, 2014), (Javornik, 2016).

Smart technologies, such as smart appliances or smartphone apps, have developed into an indispensable component of modern lifestyle and consumer usage patterns, controlling the development of the global business environment. AR establishes a close connection between a consumer's physical environment and virtual objects (Vonkeman, Verhagen, & Dolen, 2017). As a result, consumers get a more realistic, clear, well-defined, interactive, and vivid experience with AR (Cipresso, Giglioli, Raya, & Riva, 2018).

Many businesses consider augmented reality (AR) as a trend in online marketing. For instance, an AR software can show users how their faces will look after applying cosmetics virtually or how furniture would look in their homes by utilising the camera on their smartphone (Hilken T. , Ruyter, Chylinski, Mahr, & Keeling). Leading companies like IKEA, Sephora, and Tiffany & Co. have released apps with augmented reality (AR) elements that enable "try before you buy" or "virtual try on" experiences that could help with online shopping (Baek, Yoo, & Yoon, 2016) (Scholz & Smith, 2016). It will be challenging to predict how augmented reality (AR), which is already a major part of mobile phone marketing, will affect consumers' purchasing habits when they shop on their mobile devices. AR also allows marketers to interact with customers in their homes by delivering virtual items (Shankar, et al., 2016). Previous studies on AR has concentrated in particular on brand-related outcome variables, like consumer attitudes toward brands, and has considered brand personality, brand preference, and brand shopper intent under advertisement, tourism, and retail sectors as the main fields of application for AR marketing research (Du, Liu, & Wang, 2022).

The cosmetics sector has been transformed by the introduction of augmented reality technology and artificial intelligence, which has improved the capabilities of cosmetic brands and their interactions with consumers. By incorporating AR capabilities into mobile apps, users can enjoy a wonderful experience that can lead to good behavioural and mental changes (Esch, et al., 2019). These mobile augmented reality (AR) applications improve consumers' information collecting and purchase behaviours, making shopping more enjoyable for them (Park & Yoo, 2020). The absolute transformation of new media technology and its growing consumer acceptance have accelerated the importance of comprehending the influence of mobile augmented reality (AR) applications on users' purchasing habits, even though prior research has offered a variety of insights about how effective AR Shopping apps are to consumers and relation about mobile AR apps and brand related responses (Han, Gupta, Jie, & Flor, 2020). The AR features will increase user engagement with mobile AR apps (Wang, 2020) and they will also positively impact brand engagement (Nikhashemi, Knight , Nusair , & Liat, 2021), brand valence, brand attachment (McLean & Wilson, 2019), and purchase inclinations (Loureiro, Guerreiro, & Ali, 2020) (Whang, Song, Choi, & Lee, 2021).

Researchers in marketing have laid the groundwork for the demand for augmented reality apps (Grzegorczyk, Sliwinski, & Kaczmarek, 2019). Previous studies has focused on how the deployment of AR capabilities in apps affects consumer perception and brand attitude (Rauschnabel, Felix, & Hinsch, 2019), how augmented reality applications speed up consumer decision-making (Fan, Chai, Deng, & Dong, 2020), and the way several brands advertise AR (Feng & Mueller, 2019). Although there is relatively little study on customer behaviour, AR features, and qualities, (McLean & Wilson, 2019) advised to casually combine AR elements to shopping app interaction. The influence of AR qualities on brand engagement and online impulse purchase behaviour needs to be better understood through additional research. Therefore, this study makes following contribution in the existing literature: The influence of Augmented reality interactivity, vividness and enjoyment on brand engagement. Influence of brand engagement towards impulse buying behaviour. This study will be focusing upon virtual try-on of lipsticks by consumers though MyGlamm brand app. Therefore, Our study have consequences for both academics and practitioners. For researchers, the study suggest that AR features should be included in future studies of mobile app usage, as they can affect consumer behavior. For practitioners, the study suggest that including AR features in mobile apps can increase consumer brand engagement.

2. THEORY

In order to understand how portable augmented reality aid affects impulse buying, this study's conceptual framework was the classic stimulus-organism-response (SOR) paradigm.. The idea explains how augmented reality attributes affect brand engagement cognitive, affection and activation state and impulse buying behaviour. The model has been widely used by researchers provides a thorough framework for investigating online virtual experiences and impulsive purchasing (Chang, Eckman , & Yan, 2011).

Figure 1, mentions the proposed conceptual model.
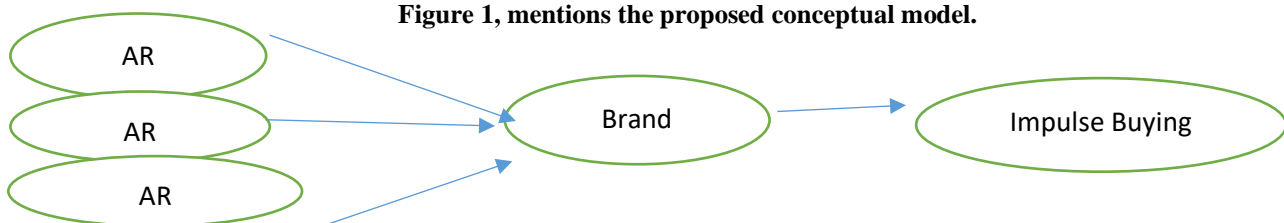
3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

3.1 Interactivity

Since every human action has the potential to entail interaction (Heeter, 2000), there is a wide range of interactivity concepts and definitions (Kiousis, 2002). To comprehend interactivity's role in operationalizing AR effectiveness, two current complimentary perspectives are necessary: (1) as a technology output; and (2) as a user perception. These perspectives offer a comprehensive definition of interactivity (Yim, Chu, & Sauer, 2017). According to (Steuer, 1992), In order to define the interaction that arises from the technology being used, technical qualities are crucial. Therefore, the ability of a technical system to encourage user involvement and engagement with material is what gives rise to interactivity (Hoffman & Novak, 2009). The effect of AR's interactivity on customer-brand connections depends on how well augmented reality (Roxo & Brito, 2018) can generate a sense of interaction. Augmented reality technology is often seen as a new way to experience content. Some people may be more interested in the technology because of its elements, such as speed, mapping, and range (Steuer, 1992). Interactivity involves a person's individualized impressions of interactivity from the user perspective (Downes & McMillan , 2000). According to (Newhagen, Cordes, & Levy, 1995), motivation to use the interactive technology is a prerequisite for an individual's sense of interactivity. Therefore, interaction with technology can only occur if users are eager to engage with it. User interaction, which combines the actual and virtual worlds to provide users the ability to alter what they see, is a crucial aspect of augmented reality.

3.2 Vividness

The ability of a technology to produce a sensory-rich mediated environment is referred to as vividness (Steuer, 1992). In it, "the sensory perception of real objects" is combined with "hallucination," that is the "nonsensory experience of imagined objects." (Lee, 2004). Vividness is often thought of as the calibre of commodity presentations in the circumstances of e-commerce. (Jiang & Benbasat, 2007). Similar to interactivity, vividness assists consumers in visualising potential interactions with goods in hypothetical future consumer situations (Phillips, Diane , Olson, & Baumgartner, 1995), leading to increased assurance in purchasing decisions and a greater retention of pertinent information (Nisbett & Ross, 1980). Technology-wise, vividness can be improved by enhancing the calibre of the information delivered while expanding the range of sensory dimensions (Li, Daugherty, & Biocca, 2002). Individuals can generate a distinctive, clear, and detailed view of a blended virtual and actual-world experience with augmented reality. Existing research demonstrates that vividness, which is among the most silent characteristics of AR, may elicit customer-brand-related reactions (McLean & Wilson, 2019).

3.3. Enjoyment

The interaction between a person's experience and their surroundings produce the emotion of enjoyment. Enjoyment is one of the key elements affecting consumers' spontaneous purchases. Furthermore, when an activity results in more enjoyment, there is a larger urge to repeat it (Csikszentmihalyi, 1988). Similar to this, when shopping online, a user's propensity to make an impulsive purchase decision increases along with how much they enjoy using the website or app (Jeffrey & Hodge, 2007) . Intuitively, females are less inclined to engage in purchasing activities when they do not feel comfortable and happy. Therefore, it is crucial to build apps that offer AR technology with a tacit understanding of the elements that influence user enjoyment in order to encourage impulsive purchasing. (Sohn & Lee, 2017) (Seo & Lee , 2021) Show that customers' emotional experiences have a significant and advantageous influence on their impulsive behaviour (Tiwari, Mr.Himanshu, & Gupta, 2021). Therefore, it can be assumed from the current study that users of mobile AR apps who find them more enjoyable are more prone to indulge in brand-related impulse purchases.

3.4 Brand Engagement

Users' incredible passion and dedication in using any company's application might have an impact on how they feel about the branded app. (Rese, Baier, Schulz, & Schreiber, 2017) centred on brand power, which impacts the quality of the consumer-brand interaction. (Verhagen, Swen, Feldberg, & Merikivi, 2015) show empirically how, in virtual world, the intention of customers to engage with brands is correlated with interactivity, quality, vividness, informativeness, hedonic and utilitarian benefits. (Fang, Zhao, Wen, & Wang, 2017) Explained how psychological engagement affects behavioural engagement intention both directly and indirectly through perceptions of the hedonic and utilitarian benefits by using an experiential-cognitive mediation technique. Similar to this, (Yim, Chu, & Sauer, 2017) demonstrate how both usefulness (a utilitarian benefit) and enjoyment (a subjective factor) have an impact on people's favourable perceptions of AR-enabled mobile devices (a hedonic benefit) (Kim & Forsythe, 2008) assert that virtual try-ons are often related with great fun. (Pantano & Servidio, 2012) Consider fun as a key determinant of customer pleasure in the AR-enabled retail environment since it makes it possible for customers to interact with the point of sale in a more engaging manner. (McLean & Wilson, 2019) exemplify how interactions with shopping AR apps result in a positive alliance between AR attributes and brand engagement and lead to online impulse purchase (Trivedi J. P., 2021). The following hypothesis is put forth by extending the previous studies on AR interactivity, vividness and enjoyment to the SOR model's specification that shopping AR app features may serve as catalysts (stimuli) for customer brand relationships;

H1: Influence of Interactivity on brand engagement towards MyGlamm brand

H2: Influence of vividness on brand engagement towards MyGlamm brand.

H3: Influence of AR enjoyment on brand engagement towards MyGlamm brand

3.5 Impulse buying behaviour

As per (Rook & Hoch, 1985) , impulse buying is the sudden, intense urge to make a purchase that is prompted by the evaluation of the environment or ideas for a certain event. The majority of consumer goods are often categorized as "impulse" purchases. However, impulse purchases are typically low-priced items that only require a minimal amount of consumer cognition. It is implied that impulsive items cause instantaneous and "mindless" reaction behaviour (Langer, E., Blank, A. & Chanowitz, & B., 1978). Customers can have more access to products, thanks to the movement and product browsing in mobile applications, which may also lead to impulse purchases (Peck & Childers, 2003). According to prior studies, unanticipated purchases might often be characterized as impulsive purchases, but not always (Kacen, Hess , & Walker , 2012) (Kollat & Willett, 1969) (Verhagen & Dolen, 2011) (Zhang, Winterich , & Mittal, 2010) (Chauhan, et al., 2021) .The justification for this distinction comes from the reality that an impulsive purchase could happen just because a customer needs the product but neglected to include it on a formal shopping list (Amos, Holmes, & Keneson, 2014). In addition, augmented reality marketing enables customers to have the product in their hands, allowing them to engage with it before making a purchase (Al-Modwahi, Parhizkar, & Lashkari, 2012) boosting purchase intent through hedonic, utilitarian, and user experience benefits (Rauschnabel, 2018). Because the majority of consumers are impacted by scenario stimulation via mobile AR apps, the stimulus has a good influence on the consumer's impulse buy behaviour when the interactivity and feeling of enjoyment are much higher than the self-demand (Do, Shih, & Ha, 2020) (Kim & Ko, 2012) . The likelihood of making a purchase increases with a strong eagerness to buy in the beauty sectors. Therefore, we proposed the following hypothesis on basis of the previous studies:

H4: Influence of brand engagement on impulse buying behaviour towards MyGlamm brand

4. METHODS:

4.1 Data Collection:

The survey approach was used to obtain data from respondents via a structured questionnaire. The data came from the western Indian state of Gujarat. The age range of the responders was 18 to 40. 500 respondents from the Gujarat state were contacted. The information was gathered through both online and offline methods from the respondents, who used an augmented reality app while purchasing online. The researchers got 365 replies, of which 32 were eliminated because 15 of them were insufficient, and the remaining 17 were considered outliers. The final questionnaire contained 23 items altogether, each with a seven-point Likert scale. In order to create a descriptive research design, the data was gathered over the time period of September to November 2022 using the non-probability purposive sampling technique. The literature evaluation revealed high levels of reliability and validity, which we used as the foundation for modifying these instruments for our study. All five research components had reliability values greater than 0.70.

The construct of interactivity was adapted from (Whang, Song, Choi, & Lee, 2021) seven-point scale. Vividness was measured through a seven-item scale of (Whang, Song, Choi, & Lee, 2021), Enjoyment was adapted from (Rauschnabel, Felix, & Hinsch, 2019) & (Fang, Zhao, Wen, & Wang, 2017) seven-point scale. The Construct Brand engagement was evaluated with five items from (Nikhashemi, Knight , Nusair , & Liat, 2021) and impulse buying behaviour was adapted and modified with four items from (Parboteeah, Valacich, & Wells, 2009) & (Rook & Fisher, 1995).

5. RESULTS:

5.1 Descriptive statistics:

The categorical data regarding Female consumer impulse behaviour when purchasing cosmetics while using the augmented reality feature of the MyGlamm brand app has been gathered and assessed for which Lipstick has been selected as study's Stimulus.

Table 1: Descriptive Statistics

Characteristics	Category	N(333)	%
Age	18-24	128	38.43
	25--31	140	42.04
	32- 40	65	19.51
Education	School Student	0	-
	University Student	92	27.62
	Graduate	132	39.63
	Post Graduate	101	30.33
	Professional	8	2.40

Occupation	Student	92	27.62
	Employed	156	46.84
	Self Employed	38	11.41
	Home maker	26	7.80

Table 1 displays the descriptive data for the study. Respondents range in age from 18 to 40 years. Female consumers are considered for this study, of which majority belongs to age group of 25 – 31 years i.e. 140 respondents, while 128 respondents are of 18-24 years age group, rest 65 respondents belongs to 32-40 years age group. The study includes 132 graduate respondents and 101 post graduate respondents. There are 156 employed respondents, 92 students, 38 self-employed and 26 home maker respondents for the study.

5.2 Multivariate Normality Test

We employed Partial Least Squares (PLS) in Smart PLS 4 and SPSS 24.0 for frequency distribution and variance-based structural equation modelling to examine the hypotheses and the direct and indirect effects of the proposed study model. The most suitable method was found to be PLS-SEM since The study's purpose was to investigate how the interactivity, vividness, and enjoyment of AR features affect brand engagement and how brand engagement affects impulse buying behaviour. The creation of a theory and its corresponding prediction, both of which were based on the literature survey's conceptual framework, are included in this study. Kutosis and Mardia's multivariate skewness (Cain, Zhang, & Yuan, 2016) (Mardia, 1970) was evaluated using the programme "Web Power" in the study, where a p-value of less than 0.05 denoted the absence of multidimensional normality in the data. Therefore, when there are issues with the distribution of the data and there is a lack of normality, the non-parametric methodology PLS-SEM is a useful research tool (Hair, Risher, Sarstedt, & Ringle , 2019). It is widely known as a non-parametric statistical method that can be used with samples of any size and gives complex modelling even more flexibility (Ringle & Sarstedt , 2016) (Hair, Risher, Sarstedt, & Ringle , 2019). As a result, the methods used in the research provide fresh perspectives on the conceptual framework suitable to the Indian context in the age of new media.

5.3 Measurement Model Assessment

Validation and reliability checks are the first steps in evaluating a measurement model (Hair, Sarstedt, & Ringle, 2017). The results showed that the reflective items in each construct had convergent and discriminant validity. The build reliabilities were assessed by measuring each item's outer loading associated with each construct, with a bare minimum of 0.70 (Hair, Sarstedt, & Ringle, 2017). All indicators obtained a reliability score of greater than 0.70, as shown in Table 2 and Figure 2.

Table 2: Measurement Model Assessment

Variables	Items	Standardized Factor Loadings	VIF	AVE	CR	Cronbach'α
AR Interactivity	ARI1	0.704	1.345	0.48	0.779	0.748
	ARI2	0.426	1.135			
	ARI3	0.745	1.269			
	ARI4	0.830	1.351			
AR Vividness	ARV1	0.741	1.461	0.469	0.81	0.705
	ARV2	0.542	1.136			
	ARV3	0.731	1.478			
	ARV4	0.843	1.731			
	ARV5	0.506	1.168			
AR Enjoyment	ARE1	0.652	1.371	0.524	0.845	0.787
	ARE2	0.609	1.54			
	ARE3	0.790	2.462			
	ARE4	0.777	2.267			
	ARE5	0.773	1.231			
Brand Engagement	BE1	0.736	1.711	0.556	0.861	0.796
	BE2	0.758	1.625			
	BE3	0.822	1.92			
	BE4	0.788	1.687			
	BE5	0.604	1.289			
	IBB1	0.738	1.591	0.618	0.866	0.795
	IBB2	0.815	1.841			

Impulse Buying Behaviour	IBB3	0.776	1.509			
	IBB4	0.814	1.633			

Figure 2: Measurement Model Assessment
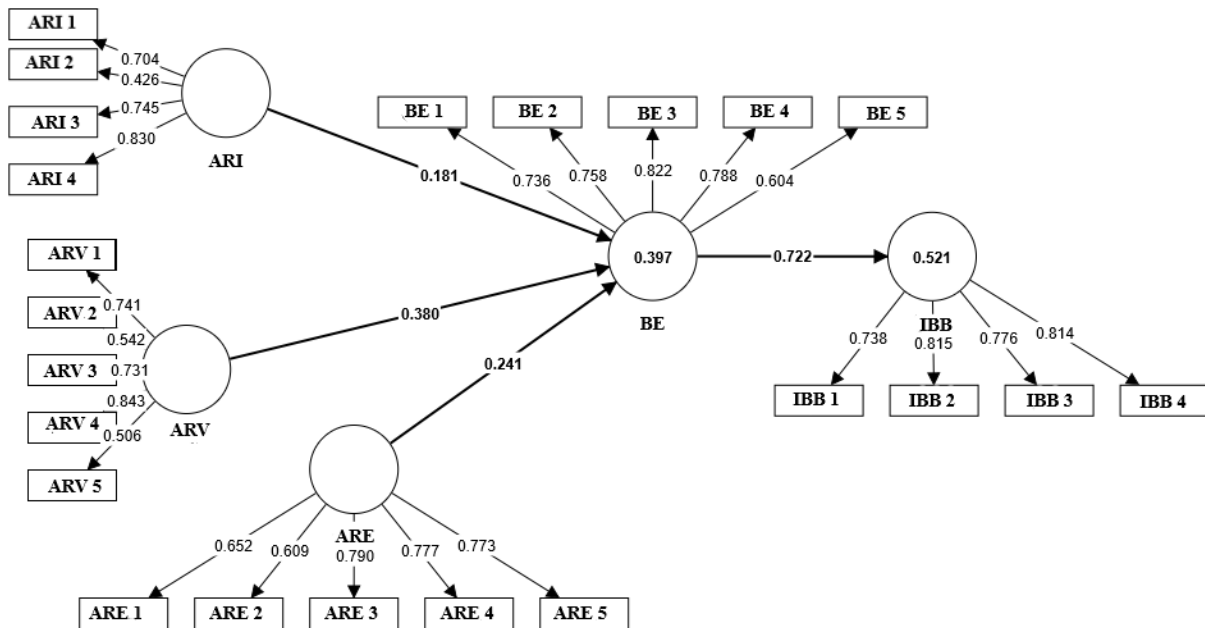
The composite reliability (CR) value and Cronbach's alpha values were both within the justifiable range of 0.70-0.95. Cronbach's alpha and Composite Reliability values greater than 0.70 are shown in Table 2. The construct dependability or internal consistency was assessed using the CR Criteria, and values greater than 0.70 were required to establish internal consistency. Table 2, which demonstrates that the average variance extracted (AVE) values for the constructs were higher than 0.60, above the suggested conceptual model's minimal criteria of 0.5. The findings are entirely consistent with past studies (Cohen, 1988) (Hair, Sarstedt, & Ringle, 2017). When a large number of independent variables must be examined, the discriminant validity must be assessed.

Table 3: Results of Discriminant Validity (HTMT)

	ARI	ARE	ARV	BE	IBB
ARI					
ARE	0.262				
ARV	0.557	0.761			
BE	0.452	0.536	0.746		
IBB	0.467	0.472	0.646	0.84	

According to the threshold level, the heterotrait-monotrait (HTMT) is less than 0.85 in Table 3 of all constructs (Henseler, Ringle , & Sarstedt, 2015). Therefore, it may be said that the current measurement model's discriminant validity is appropriate.

5.4 Path Model Assessment

The structural model must first be validated after the measurement model has passed a successful examination. Finding the R^2 coefficient of determination for each latent variable is the first step in the route model. (Hair, Sarstedt, & Ringle, 2017). The R^2 number compensates for the model's variance. Figure 2 displays the value of R^2 for brand engagement and impulse buying behaviour. Brand engagement values is 0.397, and impulse buying behaviour value is 0.521. According to the findings, independent variables such as interactivity, vividness and enjoyment account for 39.7% of the variance in brand engagement and independent variables such as brand engagement, interactivity, vividness and enjoyment account for 52.1% of the variance in impulse buying behaviour. In the following phase of the structural model evaluation, hypotheses were evaluated using the bootstrapping method (Table 4).

Table 4: Assessments of Structural Model

Hypotheses	Constructs relationships	β value	Mean value	t-value	p-value	2.50%	97.50%
H1a	ARI -> BE	0.181	0.191	2.909	0.004	0.068	0.313
H1b	ARI -> IBB	0.131	0.139	2.711	0.007	0.047	0.235
H2a	ARV -> BE	0.38	0.379	4.723	0.000	0.224	0.537
H2b	ARV -> IBB	0.274	0.275	4.542	0.000	0.159	0.394
H3a	ARE -> BE	0.241	0.245	3.321	0.001	0.426	0.656
H3b	ARE -> IBB	0.174	0.178	3.225	0.001	0.073	0.285
H4a	BE -> IBB	0.722	0.725	18.48	0.000	0.644	0.797

The findings of the structural model were evaluated using bootstrapping with 10,000 samples. The results demonstrate that augmented reality(AR) interactivity is positively influencing brand engagement (H1a, at p-value 0.004), as well as impulse buying behaviour (H1b, at p-value 0.007). Augmented reality vividness is influencing brand engagement (H2a, at p-value 0.000), on impulse buying behaviour (H2b, at p-value 0.000). Augmented reality enjoyment is influencing brand engagement (H3a, at p-value 0.001), on impulse buying behaviour (H2b, at p-value 0.001). Brand engagement influence impulse buying behaviour (H4a, at p-value 0.000). H1b, H2b and H3b are the three hypotheses which shows the mediating influence of impulse buying behaviour. To assess how well the model fits the data, standardized root mean square residual (SRMR) values should be less than 0.08. (Henseler, Hubona, & Ray , 2016), and the SRMR value of the current model is 0.08, hence we declare satisfactory fit.

5.5 Mediation Analysis
Table 5 represents the brand engagement mediation role between augmented reality attributes and impulse buying behaviour.

Table 5: Mediation Analysis

Relationship				VAF Value	Decision
ARI->BE->IBB	(DE)	0.131		0.50	PME (0.20<VAF < 0.80)
	(IDE)	0.181	0.722		
	(TE)	0.131			
ARV->BE->IBB	(DE)	0.274		0.50	PME (0.20<VAF < 0.80)
	(IDE)	0.38	0.722		
	(TE)	0.274			
ARE->BE->IBB	(DE)	0.174		0.50	PME (0.20<VAF < 0.80)
	(IDE)	0.241	0.722		
	(TE)	0.174			

"Source: Authors calculation, Direct effect (DI), Indirect effect (IDE), Total effect (TE) and Partial mediation effect (PME)".

The above table represents the mediation role of brand engagement between augmented reality attributes and impulse buying behaviour. The VAF value represents the relationship between interactivity and impulse buying behaviour mediated by MyGlamm App brand engagement is 0.50 contributing partial mediation. In parallel, the VAF values representing relationship of vividness and enjoyment with impulse buying behaviour mediated by MyGlamm App brand engagement are 0.50 each showing partial mediation analysis.

6. CONCLUSION:
The study found out that customers prioritize the perception of involvement and vividness more when it comes to cosmetic items, and if the interface design does not meet their needs, customers will lose interest in making online transactions (Ganesh, Reynolds, Pomirleanu, & Luckett, 2010) (Soni, Jain, & Kumar, 2019). Notwithstanding the fact that there are numerous studies in the literature on the topic of online impulsive purchase, only a few of these studies address the issue of cosmetic impulsive purchase (Trivedi, Kasilingam, Arora, & Soni, 2022). Moreover, there are few research which have explored the approach of Augmented reality technology in cosmetic industry related to brand engagement and impulse buying behaviour. Therefore, this study developed a model for predicting and understanding female consumers' impulse purchase behaviour in the setting of mobile augmented reality apps. The model incorporates SOR theory, and as a result, it addresses both the technological and psychological aspects of consumer behaviour for mobile augmented reality apps.

This work adds significantly to the body of literature. Firstly, it provides a crucial theoretical foundation for the role that, mobile augmented reality apps play in encouraging online impulse purchases in the retail segment in general and the cosmetic sector in particular. Secondly, it provides solution to the need of both technological and psychological aspect of

consumer behaviour through SOR theory for mobile augmented reality apps. On the other hand, Mobile augmented reality features encourage users to buy from cosmetic brands and increase their online impulse buying behaviour (Do, Shih, & Ha, 2020). Through Augmented reality features, people examine the cosmetics on their own face and engage towards brands to purchase the beauty items. The findings support the assertion made by (Yim, Chu, & Sauer, 2017) that the path from interaction to favourable brand-related outcomes is influenced by fun, enjoyment, and entertainment obtained through event rather than the utilitarian value sought during a shopping trip. Consumers still value these essential interactive features for their amusement and delight, which not only promotes app adoption but also encourages continued use, according to (Böttger , Rudolph, & Pfrang, 2017). Mobile augmented reality apps that encourage users to think of the environment's real-world and virtual components combined as producing the control they see augmented reality interactivity and vividness for perfect and clear image depiction.

In addition, the research showcased the mediation effect of MyGlamm App brand engagement between augmented reality attributes and impulse buying behaviour. The study discovered partial mediation effect of MyGlamm App brand engagement towards augmented reality attributes i.e. interactivity, vividness and enjoyment and impulse buying behaviour. The study realized that augmented reality interactiviy, vividness and enjoyment positively engages the consumers and urge them to purchase the beauty products through MyGlamm App.

The integration of the suggested models offers critical insights into spontaneous purchases of cosmetics. It not only encapsulates the general customer experience with mobile augmented reality apps, but it also illustrates the relevance and importance of such apps in triggering impulse buying behaviour.

7. LIMITATIONS AND SCOPE FOR FUTURE STUDY

The study's first flaw is that it only concentrates on female millennial consumers. Younger and older generations use new technologies in quite different ways, according to a study. Future study can therefore be done on people of various ages. Second, future research may take other augmented reality elements into consideration in addition to the three factors examined in this study (interactivity, vividness, and enjoyment). Third, brand engagement was included in this study as a way to understand consumer reaction. Future research can look at other user shopping habits, such as brand attachment, relevance, equity, experience, and love in order to produce more obvious results. The sample size is small, therefore the results might be more accurate if there had been a larger sample size. Therefore, larger sample sizes should be used in future research conducted in India. Lastly, the research considers impulse buying behaviour of the consumers, future research can study about purchase intention, satisfaction, and brand loyalty too.

8. IMPLICATIONS FOR ACADEMIC PURPOSE

Our research has a variety of academic applications:

To fill a knowledge gap in mobile augmented reality, we first researched augmented reality, a new media environment, in relation to the My Glamm brand App. Prior research on augmented reality(AR) in the context of the cosmetic industry has mainly been on brand-customer interactions, with little focus on how it affects consumers and their reaction towards beauty products (Scholz & Duffy, 2018). The prior study, however, did not investigate how augmented reality features created for beauty products improve brand engagement and consumer impulse response. The outcomes also bring up new possibilities and provide theoretical support for adopting AR. The findings of this research fill in the gaps left by past literature on the use of technologies like virtual reality (VR) and artificial intelligence (AI) in the beauty business by defining the key components of a mobile augmented reality features.

Second, the SOR model in the development of beauty goods is examined in this study. The three AR service elements that study has created are interactivity, vividness and enjoyment. Brand engagement has been created as organism as per SOR framework to understand consumers impulse response.

Third, this study examined how consumers used augmented reality features within the MyGlamm app to engage with cosmetic brands and make online impulse purchases.

9. PRACTICAL IMPLICATIONS FOR ASIAN BUSINESS

In the context of marketing sector for Asian Business, our research comes up with a conceptual for marketers to construct marketing strategies. As part of an interactive marketing approach, we deployed mobile augmented reality technology to expose marketers to socially controversial policies in many different Asian countries. Marketers can leverage this technology to give customers a more enjoyable buying experience. The benefit of augmented reality is that it enhances brand participation, involvement, engagement, and attachment while also bringing interaction, vividness and enjoyment to the consumer's purchasing experience. Marketers can adapt specialised strategies, develop e-marketing programmes, and use these augmented reality features to customers and businesses. The increased likelihood of making an impulse purchase as a result may raise the rate of online purchases and benefit the brand more. Using an augmented reality component in the

beauty industry gives customers pleasure and happiness, and such interactive technology can inform customers by performing virtual try-ons of various makeup products quicker than in the actual world. Furthermore, augmented reality can promote future device re-use, which will strengthen relationships with customers over time. Augmented reality (AR) is made possible by mobile devices, which also eliminate time and space constraints. The outcome is that the business can use high-end and reasonably priced technology as a marketing tactic. Finally, AR has the ability to establish itself as a marketing mainstay.

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