

ORIGINAL RESEARCH ARTICLE

Understanding the consumer's intention to purchase reproductive health products from e-commerce sites

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Abstract

The emergence of the Internet, together with the expansion of associated technologies, has had a profound influence on every possible field. Of great importance to marketers has been the rise of virtual stores that facilitate the online sale of goods and services. Although the majority of marketers have recognized the significance of including the Internet in their marketing strategies, there is a lack of scientific study on the key elements that impact an individual's decision-making process in the purchase of female reproductive healthcare products. The women's health market in India is projected to grow to \$1.325 Billion by 2030, from \$0.726 Billion in 2022. The study employed a survey instrument with 448 participants who frequently make online purchases of reproductive healthcare products. The results indicated that purchasing through e-commerce sites has gained extensive popularity among female customers due to social influence, customer experience, cost-effectiveness, performance expectancy, effort expectancy, and facilitating conditions in its ability to save time and space. The study also indicated that advertising through social media has a profound impact on female customers in their purchase decisions to buy reproductive healthcare products. (*Afr J Reprod Health* 2024; 28 [10]: 167-178).

Keywords: social media; reproductive products; e-commerce; purchase intention

Résumé

L'émergence d'Internet, ainsi que l'expansion des technologies associées, ont eu une profonde influence sur tous les domaines possibles. L'essor des magasins virtuels qui facilitent la vente en ligne de biens et de services a été d'une grande importance pour les spécialistes du marketing. Bien que la majorité des spécialistes du marketing aient reconnu l'importance d'inclure Internet dans leurs stratégies marketing, il existe un manque d'études scientifiques sur les éléments clés qui ont un impact sur le processus décisionnel d'un individu lors de l'achat de produits de santé reproductive féminine. Le marché de la santé des femmes en Inde devrait atteindre 1,325 milliard de dollars d'ici 2030, contre 0,726 milliard de dollars en 2022. L'étude a utilisé un instrument d'enquête auprès de 448 participantes qui effectuent fréquemment des achats en ligne de produits de santé reproductive. Les résultats ont indiqué que l'achat via des sites de commerce électronique a gagné en popularité auprès des clientes féminines en raison de l'influence sociale, de l'expérience client, de la rentabilité, des attentes en matière de performance, des attentes en matière d'effort et des conditions facilitant la capacité à gagner du temps et de l'espace. L'étude a également indiqué que la publicité sur les réseaux sociaux a un impact profond sur les clientes dans leurs décisions d'achat de produits de santé reproductive.. (*Afr J Reprod Health* 2024; 28 [10]: 167-178).

Mots-clés: réseaux sociaux; produits de reproduction; commerce électronique ; intention d'achat

Introduction

The Internet has facilitated the growth of e-commerce usage among different age groups. Over the last two decades, e-commerce has experienced remarkable growth due to shifts in consumer behaviour, preferences, technical progress, rising income, and financial development. The proliferation of India's e-commerce ecosystem has garnered the interest of both the business sector and

academic circles. The burgeoning e-commerce industry in India is propelled by the availability of inexpensive smartphones and low-cost data plans, prompting prominent retailers and consumer goods manufacturers to ramp up their operations in the online sector. Every year there has been a phenomenal increase in the number of consumers resorting to online platforms to purchase products and services. Estimates indicate that the Indian e-

commerce sector is expected to achieve a value of US\$ 300 billion by 2030¹.

The Indian e-commerce industry is projected to see a compound annual growth rate (CAGR) of 27% and achieve a value of US\$ 163 billion by 2026¹.

In 2023, India's e-commerce infrastructure achieved the milestone of US\$ 60 billion in gross merchandise value (GMV), representing a 22% growth compared to the previous year.¹ This substantial rise was attributed to the growth of mobile Internet usage and the widespread adoption of social networking platforms². Due to the significant growth in Internet users and online transactions, e-commerce has now become an essential element of the contemporary business landscape³. In contrast to traditional shopping, which is commonly linked to issues of overcrowding, congestion, time limitations, and parking availability, online purchases are more desirable due to their superior convenience. E-commerce, thus, offers consumers complete control over their experiences and facilitates the online purchase of goods or services from any location⁴. Although the significance of including the Internet in marketing strategies is well recognized by marketers, only a limited number of researchers have conducted studies on the factors that motivate or deter consumers when making online purchases. The majority of the past research was primarily focused on Web advertising rather than the underlying factors influencing customers' decisions to purchase through online mediums⁵. Primarily, these studies examined the demographics of Internet users, the motivations behind online shopping, the preferred products, and their levels of satisfaction. Thus, there is a deficiency in the research regarding the elements that influence consumers' decision-making process.

Consumer behaviour is the examination of individuals' purchasing decisions, motivations, purchasing methods, timing, and the cognitive processes involved in obtaining, using, and disposing of consumer goods. Historically, women have been primarily responsible for purchasing everyday household items, but now they maintain control or influence over 85% of consumer spending (carter)⁶. According to a report by Harvard Business Review, women will have control over

approximately \$28 trillion of worldwide expenditure in the next few years⁷. The significance of women as consumers to marketers lies in their dual role as both buyers and influencers. Their ability to exert influence over the purchasing choices of all the other segments is remarkable.

This study primarily focused on the factors that motivate and influence female consumers in the purchase of reproductive healthcare products through e-commerce sites. The women's reproductive healthcare market includes a wide variety of products that are specifically designed for the purpose of providing maternal and menstrual care, fertility screening, and family planning. The range of products encompasses breast pumps for maternal care, dysmenorrhea-treating menstrual pain relief devices, pregnancy testing kits, and intrauterine devices (IUDs) for fertility and family planning. The rising prevalence of women's reproductive health reflects the growing consciousness among the public pertaining to women's health across the globe, especially among the low and middle-income countries like in Africa and Asian countries. For instance, increasing knowledge about safer contraceptive techniques, such as intrauterine devices (IUDs), has been increasing to avoid unwanted pregnancies in African country like Nigeria as well as Asian country like India (Kwame)⁸.

Reproductive healthcare products

The worldwide market for reproductive healthcare was steadily increasing. A year-on-year increase of 12.1% was observed in the demand for reproductive healthcare products⁹. In 2024, the reproductive healthcare market is projected to achieve a value of US\$ 296,286.6 million. Between 2024 and 2034, sales of reproductive health products are expected to grow at a compound annual growth rate (CAGR) of 12.7%. The projected market value is expected to reach US\$ 981,047.8 million by the end of 2034⁹. Recent years have seen substantial expansion in the reproductive healthcare industry, propelled by shifting societal attitudes, heightened awareness of reproductive healthcare, and the emergence of e-commerce platforms.

An increased awareness of the significance of women's health, rising disposable income, and government efforts to enhance healthcare accessibility and quality for women are driving the rapid growth of the Indian women's healthcare market in general and reproductive healthcare market in particular. The products and services offered in this sector encompass gynaecological and obstetric care, maternal and child health, contraception, and management of menopause¹⁰. The market for women's reproductive health devices in India was assessed at USD 95.1 million in 2021. The market is expected to increase from USD 102.5 million in 2022 to USD 145.8 million by 2029, with a compound annual growth rate (CAGR) of 5.2%¹¹.

Theoretical framework

This study adopted the UTAUT model, which was developed as the combination of eight theories of acceptance of information technology.¹² It includes Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). The UTAUT2 model is an extension of the UTAUT model, which provides insights into the acceptance and usage of technology within the specific context of the customer. The UTAUT model consists of four components that determine user behaviour intentions: performance expectancy, effort expectancy, social influence, and facilitating conditions¹³. In contrast, UTAUT2 has introduced three additional components, namely hedonic motivation, price value, and habit. In addition, the UTAUT2 model incorporates individual variations, including age, gender, and experience, as moderating variables to influence behavioural intentions towards technology usage.

Constructs of the study

Cost-effectiveness: Cost-effectiveness refers to the subjective advantage that an individual believes they get from using technology in comparison to the total

cost involved^{12,14-15}. The economic ramifications of using social media as a medium for interaction and dissemination of information aimed at young consumers much exceed the costs and effort associated with conventional physical engagements.

Facilitating conditions: Conditions that facilitate technology adoption confidence refer to the level of assurance an individual has in the presence of organizational infrastructure for the use of technology¹⁶⁻¹⁷. The facilitating conditions refer to a variety of elements that enable customers to actively participate on social media. These elements encompass the availability of information, knowledge, and skills; provision of training and guidance; support for internet connectivity, device usage, and assistance from organizations.

Social influence: Social influence is the modification of an individual's perspectives, behaviours, or attitudes through interaction with others or groups, especially when using information technology¹⁸⁻¹⁹. The present study investigates the impact of social interaction, namely through suggestions and comments, on the attitudes of young consumers and other users on social networks regarding real purchases and brand selections.

Effort expectancy: The construct of effort expectancy suggests that individuals perceive social media platforms as devoid of stress, mostly because of their user-friendly interface²⁰⁻²¹. In this study, effort expectancy is defined as the inclination of consumers on social media platforms towards a technology that demands the least amount of manual work. The organization will provide support services to mitigate any difficulties that may arise among individuals during their decision-making process.

Performance expectancy: Performance Expectancy is the psychological belief held by individuals regarding the capacity of a system to improve their performance²²⁻²⁴. In the context of this research, performance expectancy pertains to the perception held by internet users that social media platforms would provide diverse advantages and aid them in decision-making by shaping their online attitude.

Customer experience: Customer experience is defined as “customer’s encounters with products, services, and businesses - a perception produced when humans consolidate sensory information”²⁵.

Purchase intention: Purchase intention refers to the degree of consideration and likelihood of a consumer making a purchase of a product²⁶. The purchase intention is an individual's cognitive anticipation of the specific product or service they intend to purchase²⁷. The consumer's buying intention is strongly correlated with their attitude and preference towards a product or service. Purchase intention refers to the probability that consumers would express the desire to acquire a particular product or service at a later time²⁸.

Conceptual model

Following an extensive review of literature and consideration of background theories such as the Theory of Planned Behaviour and the Unified Theory of Acceptance and Use of Technology, this study identified six influential factors in the purchase of reproductive healthcare through e-commerce sites (Tandon and sha)²⁹⁻³⁰. The six predictor variables included Cost-Effectiveness, Facilitating Conditions, Social Influence, Performance Expectancy, Effort Expectancy, and Customer Experience. This study investigated the effects of several influencing elements in the purchase of women’s reproductive healthcare products.

Objectives

- To identify and examine the factors influencing the purchase of female reproductive healthcare products through e-commerce sites.
- To investigate the influence of different factors on behavioural intention to purchase female reproductive healthcare products through e-commerce sites.
- To examine the impact of behavioural intention on the actual purchase of female reproductive healthcare products through e-commerce sites.

Hypothesis

- H01: Cost-Effectiveness has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H02: Facilitating Conditions has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H03: Social Influence has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H04: Performance Expectancy has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H05: Effort Expectancy has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H06: Customer experience has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites.
- H07: Behaviour intention to purchase has no significant effect on actual purchase of reproductive healthcare products through e-commerce sites.

Methods

The study adopted a descriptive research approach, and data collection was conducted using a standardized quantitative questionnaire designed by the authors. Building upon the Theory of Planned Behaviour and Unified Theory of Acceptance and Use of Technology (UTAUT)³¹⁻³², the study's variables were obtained from a range of literature encompassing consumer behaviour, technology acceptance, and online and social media marketing³³⁻³⁴. The study incorporated six influential factors in online marketing through e-commerce sites, measured using 28 items with Cost-Effectiveness (4 items), Facilitating Conditions (4 items), Social Influence (3 items), Performance Expectancy (4 items), Effort Expectancy (4 items), Customer Experience (3 items), Behaviour Intention to Purchase (3 items) and Actual Purchase (3 items).

The assessment of the measuring questions was conducted using a 7-point Likert scale, where response choices ranged from 1 (representing severe disagreement) to 7 (representing strong agreement). A statistical analysis was conducted on the data obtained from the respondents using the SPSS 25.0 software program. The present study also employed Structural Equation Modeling (SEM) through AMOS 21.0 software to investigate the association between the constructs.

Population and sampling design

The survey participants consisted of young female customers from Chennai; who use reproductive healthcare products. The study verified that the participants had made a minimum of one purchase of reproductive healthcare products through an e-commerce platform in the past two months. The selection of the sample size was determined using the sample size calculation³⁵. Their recommendation was that in cases where the population size surpasses 75,000, the sample size should be a minimum of 385. Therefore, it was suggested to gather data from over 450 participants in order to adequately address the mentioned criteria³⁵.

An aggregate of 600 questionnaire forms were distributed (both online and offline) among the respondents residing in Chennai. The respondents in the sample were selected using a convenient sampling technique. Only 500 out of the 600 surveys distributed were returned to the authors. Among the 500 questionnaires that were received, 52 response sheets were incomplete and not included in the final analysis. Thus, the final study included 448 respondents. The calculated net response rate was 74.6 percent. The above table 1 reveals that the majority of the female respondents who frequently buy reproductive healthcare products belonged to the age group of 25 years and below (41.8%), followed by 26.7% of respondents from 26 to 30 years (26.7%). The study also included 19.1% of respondents from the age group of 31–35 years and 12% of respondents with an age over 35 years. The majority of the respondents were employed with private organizations (34.0%), and 24.7% of respondents were students. 21.8% of respondents

were employed with government organizations. 9.3% of respondents were self-employed, and 9.8% were homemakers. Family income of the respondents revealed that 41.5% of respondents have income between Rs. 5 and 10 lakhs per year, and 41.1% of respondents have income below Rs. 5 lakhs per annum. 17.4% of respondents have annual income exceeding Rs. 10 lakhs per annum.

Results

Table 2 displays the descriptive statistics of the constructs of the study. Past literature suggested that a variable can be considered normal if its skewness value is below 0.3 and its kurtosis value is also below 0.3³⁶.

The values obtained in the study match the aforementioned criteria, indicating that the data satisfies the conditions of normality, and hence parametric tests can be comfortably conducted with the data. Based on the mean values, Facilitating Conditions (M = 5.84, SD = 0.78) was the top-rated construct, followed by Actual Purchase (M = 5.72, SD = 1.02), and Customer Experience (M = 5.60, SD = 0.83). The lowest rated construct was social influence (M = 5.19, SD = 1.030).

Validity and reliability analysis

Two assessment approaches, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), were used to assess the measurement model. The convergent validity evaluates the degree to which the measuring items accurately represent their related concept. Furthermore, the assessment of discriminant validity was conducted to determine the concept validity, which investigates the statistical distinction between the constructs.

The convergent validity of the SEM model was assessed by analyzing the average variance extracted (AVE) and factor loadings (standardized) parameters. Results indicated that all Average Variance Extracted (AVE) values in this investigation exceed 0.5, ranging from 0.546 to 0.754. These findings suggest that the scale employed in the study has robust convergent validity.

Figure 1: Conceptual model

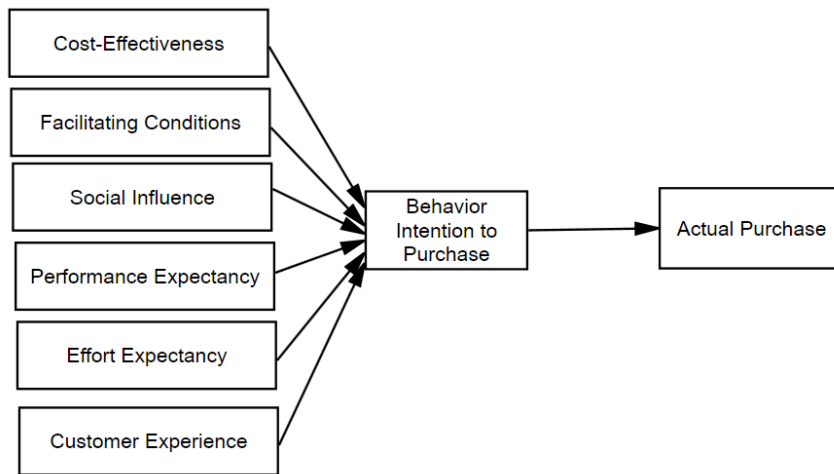


Table 1: Demographic Characteristics (N = 448)

Parameter	Category	Frequency	Percent
Age (years)	25 and Below	188	41.8
	26 – 30	120	26.7
	31 – 35	86	19.1
	Above 35	54	12.0
Occupation	Student	111	24.7
	Private Employee	153	34.0
	Government Employee	98	21.8
	Self-employed	42	9.3
Family Income per year (INR)	Homemaker	44	9.8
	Below 5 Lakhs	184	41.1
	5 – 10 Lakhs	186	41.5
	Above 10 Lakhs	78	17.4

Table 2: Descriptive statistics

Variables	Mean (M)	Std. Deviation (SD)	Skewness	Kurtosis
Cost-Effectiveness (COST)	5.49	1.02	0.76	0.57
Facilitating Conditions (FC)	5.84	0.78	0.59	0.44
Social Influence (SI)	5.19	1.03	0.57	0.74
Performance Expectancy (PE)	5.43	0.93	0.68	0.67
Effort Expectancy (EE)	5.36	0.96	0.84	0.86
Customer Experience (CE)	5.60	0.83	0.73	0.92
Behavioural Intention to Purchase (BI)	5.48	0.74	0.65	0.80
Actual Purchase (ACT)	5.72	1.02	0.97	0.79

Table 3: Convergent Validity, Internal Consistency, and Composite Reliability

Variable	No. of Items	Standardised Factor Loadings	AVE	CR	Cronbach's Alpha
Cost-Effectiveness (COST)	4	0.698 0.766 0.771 0.806	0.68	0.85	0.82
Facilitating Conditions (FC)	4	0.735 0.868 0.771 0.743	0.71	0.86	0.81
Social Influence (SI)	3	0.782 0.65 0.671	0.64	0.74	0.72
Performance Expectancy (PE)	4	0.829 0.785 0.608 0.725	0.65	0.86	0.82
Effort Expectancy (EE)	4	0.747 0.623 0.784 0.727	0.62	0.81	0.78
Customer Experience (CE)	3	0.819 0.792 0.693	0.69	0.81	0.75
Behaviour Intention to Purchase (BI)	3	0.816 0.858 0.837	0.80	0.88	0.84
Actual Purchase (ACT)	3	0.811 0.756 0.793	0.72	0.83	0.81

Table 4: Discriminant Validity

Variable	SI	PE	EE	COST	FC	CE	BI	ACT
SI	0.80							
PE	0.49	0.81						
EE	0.78	0.65	0.79					
COST	0.69	0.76	0.78	0.83				
FC	0.16	0.07	0.30	0.21	0.84			
CE	0.75	0.62	0.90	0.76	0.28	0.82		
BI	0.84	0.76	0.88	0.86	0.37	0.84	0.89	
ACT	0.39	0.36	0.43	0.41	0.18	0.42	0.47	0.85

Furthermore, the factor loading metrics for each item of the related constructs are above 0.5, ranging from 0.608 to 0.868 (KMO = 0.912, Bartlett's test of sphericity 8426.184, sig < 0.01), suggesting acceptable validity³⁶.

Composite reliability (CR) and Cronbach's alpha coefficients were computed to assess the dependability of the concept. In accordance with the recommended criterion of 0.7, the results indicate that the composite reliability (CR) of each factor ranges from 0.74 to 0.88. These findings indicate that the reliability of the construct is considered satisfactory. Moreover, all the Cronbach's alpha values (ranging from 0.72 to 0.84) were above the standard of 0.7, indicating a significant degree of reliability³⁷. The findings suggest that the measurements of validity and reliability for all aspects of the study are deemed acceptable³⁶. Table 3 presents the findings of the convergent validity, internal consistency, and composite reliability tests.

Discriminant validity

The assessment of discriminant validity involved a comparison between the square root of average variance extracted (AVE) and factor correlation coefficients. An appropriate measure of discriminant validity is one in which the square root of the average variance extracted (AVE) for each construct is greater than the correlation between any pair of constructs³⁸.

The results revealed that the square root of the average variance extracted (AVE) for each independent variable surpassed its correlation coefficients with the other independent variables. Hence, the results satisfy the requirement for discriminant validity. Table 4 The results revealed that the square root of the average variance extracted (AVE) for each independent variable surpassed its correlation coefficients with the other independent variables. Hence, the results satisfy the requirement for discriminant validity.

Evaluation of conceptual model

The empirical evaluation of the conceptual model is presented in Figure 2.

Table 5 presents the influence of the predictor factors on the dependent variable measured using beta estimation. The regression table shows the impact of the input constructs on the outcome construct. The summary of the results of hypothesis testing is given below.

- Cost-effectiveness ($\beta = 22$, $p = 0.00$) has a significant impact on intention to purchase. Thus, the hypothesis “H01: Cost-effectiveness has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Facilitating conditions ($\beta = 16$, $p = 0.00$) have a significant impact on intention to purchase. Thus, the hypothesis “H02: Facilitating Conditions has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Social influence ($\beta = 21$, $p = 0.00$) has a significant impact on intention to purchase. Thus, the hypothesis “H03: Social influence has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Performance Expectancy ($\beta = 17$, $p = 0.00$) has a significant impact on Intention to Purchase. Thus, the hypothesis “H04: Performance Expectancy has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Effort Expectancy ($\beta = 22$, $p = 0.00$) has a significant impact on Intention to Purchase. Thus, the hypothesis “H05: Effort Expectancy has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Customer experience ($\beta = 27$; $p = 0.00$) has a significant impact on intention to purchase. Thus, the hypothesis “H06: Customer experience has no significant effect on behaviour intention to purchase reproductive healthcare products through e-commerce sites” was rejected.
- Behaviour intention to purchase ($\beta = 47$, $p = 0.00$) has a significant impact on actual purchase of reproductive healthcare products through e-commerce sites.

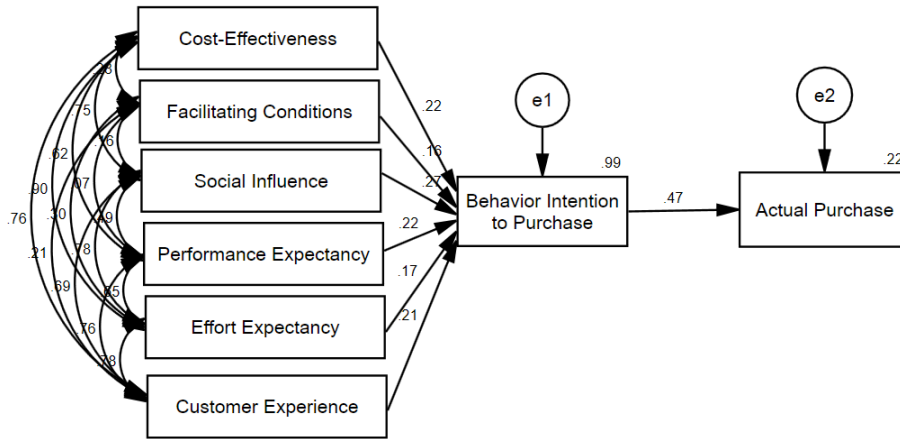


Figure 2: Evaluation of conceptual model

Table 5: Regression weights

Dependent Variable	Predictor Variable	Beta Estimate	S.E.	C.R.	p-value
Intention to Purchase	<--- Cost-Effectiveness	0.22	0.01	16.20	***
Intention to Purchase	<--- Facilitating Conditions	0.16	0.01	26.70	***
Intention to Purchase	<--- Social Influence	0.21	0.01	18.54	***
Intention to Purchase	<--- Performance Expectancy	0.17	0.01	11.36	***
Intention to Purchase	<--- Effort Expectancy	0.22	0.01	23.89	***
Intention to Purchase	<--- Customer Experience	0.27	0.01	27.51	***
Actual Purchase	<--- Intention to Purchase	0.47	0.06	11.16	***

Thus, the hypothesis “H07: Behaviour intention to purchase has no significant effect on actual purchase of reproductive healthcare products through e-commerce sites” was rejected.

Evaluation of the goodness of fit in a structural equation model

The Goodness of Fit metrics for the structural AMOS Model unequivocally illustrate that the measured values of different fit measures correspond to the pre-established levels. Thus, it is concluded that the model exhibits a robust fit. The results obtained for indices such as the Goodness of Fit

Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Comparative Fit Index (CFI) exceeded the required threshold of 0.9 established.³⁶ These findings illustrate the effectiveness of the model when applied to the specific scenario. The RMSEA, or Root Mean Square Error of Approximation, was found to be below the established threshold of 0.08. This suggests that the model exhibits a high level of accuracy and can be considered a perfect fit. In general, the values obtained for model fit indices and measurements fall within an acceptable range.

Thus, it may be argued that the SEM model is appropriate.

Discussion

The findings of the empirical analysis threw interesting insights on the status of purchase behaviour of women consumers with special reference to reproductive healthcare products through e-commerce sites. The analysis of demographic data shows that majority of the women respondents were young with age 25 years and below. The demography belongs to Generation Z who have higher level of exposure to internet and portable digital technology. Generation Z is proactively addressing reproductive health and has a holistic understanding of health and health equity. Gen Z cares about reproductive health care and believes people should have the right to decide if they want to continue a pregnancy. They often prefer to use technology to address healthcare related problems and extensively rely on the digital devices for making purchases and avail services. Majority of the respondents were employees of private firms. This typically reflects the Indian society and thriving young population who predominantly work in hi-tech jobs.

The study found the women respondents have given highest mean rating for facilitating conditions indicating that reproductive healthcare products empower women to face challenges through the use of technology and modern healthcare and clinical devices and systems. The evaluation of the SEM model unequivocally demonstrated that all the constructs exert a substantial influence on the behavioural intention to buy reproductive healthcare products from e-commerce sites. Based on the beta value, customer experience has the most significant impact on the behaviour intention to purchase ($\beta = 0.27$) when compared to other factors. This suggest that women who have prior positive experience in the usage of reproductive healthcare products are highly motivated and intended to use them on a regular basis. Women respondents perceive that the reproductive healthcare products benefit them in meeting their needs in their sexual wellness, mental stress and physical health. Based on the analysis of beta estimate of the model, the study found that cost-effectiveness of reproductive healthcare products

has significant impact on intention to purchase ($\beta = 0.22$). Respondents feels that value for money in the purchase of reproductive healthcare products would benefits them and motivate them to remain as a long-term consumer and remain loyal to the brands. According to these findings, women who responded believed that the purchase of reproductive healthcare products through e-commerce sites provide them a safe and secure environment. The results of the study corroborate with findings from several past research studies³⁹⁻⁴¹.

The staggering growth of e-commerce and its advantages in communication, distribution, and transactions compel enterprises in India to establish an online presence, sometimes without understanding the true implications of this new medium on their operations. Understanding the elements that affect purchase behaviour and buying decisions toward reproductive healthcare products through e-commerce sites, together with effective measuring tools, enables companies to optimally use their resources, including personnel, investment, time, and distribution.

Conclusion

A major gap in the existing body of knowledge regarding purchase intention toward women reproductive healthcare products was a lack of empirical studies and explanatory models especially in the context of a developing economy like India. This study is one of the rare studies focussing on the consumer behaviour and purchase intention toward reproductive healthcare products through e-commerce sites. The study adopted a quantitative research approach and a questionnaire designed in the study was used for data collection among the women respondents.

The study empirically tested the UTAUT model, and the statistical significance of all hypothesized relationships was also empirically validated. The findings provide valuable insights to the marketers to fine-tune their marketing strategies, focusing on the female reproductive healthcare products. This study investigated the impact of various influencing factors on consumers' intentions to purchase reproductive health products from e-

commerce sites. Through an extensive review of literature, six factors were identified to form a preliminary model. Cost-effectiveness, facilitating conditions, social influence, performance expectation, effort expectation, and customer experience were considered. Hence, marketers should focus on enhancing the customer experience in order to increase the sales of reproductive health care products. Similarly, product pricing is another important factor that must be carefully accounted for in Indian markets for better market penetration and value creation. The study validated the widely accepted idea that online marketing and purchasing through e-commerce platforms have a substantial influence on both the intention to purchase and the actual purchasing behaviour of female consumers of reproductive healthcare products.

Limitations

The study was delimited only to six influential factors. The mediating role of trust and risk could also be considered as the future extension of the study. The moderating effect of different demographic factors could be analysed as the possible extension of the present study. Also, the study only considered the perceptions of female in an urban-settings. Hence, the practice of purchase of reproductive healthcare products among rural women respondents need to be explored.

Availability of data and material

Due to the sensitive information concerning the respondents, the data is kept confidential.

Funding

Not Applicable

Ethical consideration and consent to participate

This study adhered to all ethical guidelines in conducting research involving human participants. Participation in the survey was voluntary, and respondents were informed of the study's purpose,

their role in the research, and their right to withdraw at any stage without consequences. Informed consent was obtained from all participants, ensuring they were aware of how their data would be used. Confidentiality and privacy were strictly maintained, with all identifying information anonymized to protect participant identities. Additionally, no sensitive personal information was collected beyond what was necessary for the research objectives. The study did not involve any physical or psychological risks to the participants, and no incentives were offered that could influence their responses. Data storage was managed securely, and only authorized researchers had access to the collected data. Upon completion of the study, the data was stored in a secure manner, ensuring it would not be used for purposes other than those agreed upon by the participants.

Competing interest

All authors have none to declare.

Authors contribution

All the authors have equally contributed to the conceptualization, methodology, data analysis, and manuscript preparation.

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