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Factors Influencing Adoption Of Digital App Based Pharmacy Delivery Services – In Light Of Utaut-2 Model

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ABSTRACT

In the realm of health crisis, especially in the COVID-19 era, significant advancements in technology and exponential growth of e-commerce have introduced a new but emerging norm where online prescription delivery systems have found acceptance in India. This research objectives to establish the determinants that affect the adoption of digital app-based pharmacy delivery services on purchase intention, which eventually results in actual buying behavior among consumers. The study involves using only one method, which is quantitative analysis. The researcher adopted the survey approach to collect data through a multi-sectional investigation plan. To determine the sample size, the study randomly chooses a total of 175 online users of pharmacy delivery apps using the Cochran formula with an estimated error rate of 7.5% and a confidence level of 95%. The sampling method utilized in this research is non-probability sampling, specifically convenience sampling. There was no specific control group from which participants in this study could have been chosen, so convenience sampling was considered appropriate and feasible as it enables researchers to get their hands on enough individuals who meet certain criteria based on the data-gathering tool involved in this research, which is a carefully planned questionnaire. This questionnaire was developed based on previous literature examining the UTAUT-2 Model, including online pharmacy adoption and customer behavior. The analysis of data in the study employed SPSS Version 22 as well as AMOS Version 22 software. The research findings will help society by revealing what makes pharmacy delivery apps popular. This study can be useful to the pharmaceutical industry because it will help them understand the factors that positively and negatively influence the adoption of such applications. Additionally, authorities might use the data to promote the integration of digital healthcare services, ultimately boosting access to medication for persons in rural places or with limited mobility.

KEYWORDS - Digital App, Pharmacy Delivery Services, UTAUT-2 Model

INTRODUCTION

The internet distribution of Pharmacy items in India was not widely adopted for various reasons. To begin, it is worth noting that people in India have consistently preferred to contact chemists and receive specialized advice about medications by visiting brick-and-mortar pharmacies **Parekh, D., et al (2016)**. Furthermore, there were concerns about the veracity and security of the pharmaceutical products being marketed through internet platforms. Furthermore, the absence of reliable delivery solutions in geographically remote locales has posed a further obstacle to the expansion of online drug delivery **Petrova, G., & Andonova, V. (2021, December).**

The COVID-19 pandemic hastened technological innovations and online shopping platforms that are bolstering consumer acceptance and adoption of convenient online prescription drug delivery services in India. **Chandra, M et al (2022)**. What's more, the COVID-19 pandemic has increased the momentum toward the digitalization of pharmacies, as the public seeks to social distance themselves and avoid densely populated places **Champagne, D., et al (2015).** The above trend has led to the increasing acceptance of the online mode as the most secure and the most convenient for making purchases and one can notice increasing trust in such platforms. Moreover, the government's endeavors to maintain official control over the organizations selling medicines on the Internet create additional space for the growth of the business. All around the country, there are reliable delivery services that reach most of the population even in remote areas and thus, for most customers in India, online pharmacy delivery is the first option **Davies, M. J., et al (2014).**

The integration of technologies, in the medical field often happens slowly in India because people are cautious, about trying out unfamiliar health treatments. **Gawande, A., et al (2019).** The trust, in pharmacies for products is increasing as more success stories and positive feedback, from satisfied customers emerge. Additionally the attractive pricing and discounts offered by these pharmacies are catching the attention of consumers leading them to choose this convenient option. As a result, the online pharmacy delivery industry is experiencing growth. Is expected to continue expanding in the coming years. **Khandelwal, R., et al (2022).**

The increasing trend of apps, like Netmeds, 1mg, Practo, PharmEasy, Apollo Pharmacy and Medlife has made it easier for people to order a range of both prescribed and over the counter medications, from the comfort of their homes. **Sabbir, M. M., et al (2021).** The increased demand for online pharmacy applications, particularly during the ongoing COVID-19 epidemic, can be attributed to the added convenience of doorstep delivery **Chandra, M., et al (2022).** This particular aspect has played a role in the increasing appeal of these apps motivating people to follow the guidelines, for staying at home. With the enhanced reliability and efficiency of these platforms, more customers will likely choose to use pharmacy delivery services in the future. **Sampat, B., & Sabat, K. C. (2020).** Researchers employ the Unified theory of acceptance and use of technology UTAUT-2 Model for assessing the level of acceptance and adoption of novel technology **Venkatesh, V. et al (2011).** Apps for digital pharmacies get looked at using something called the UTAUT-2 model. It's supposed to show what makes folks want to use new technology and the main stuff it considers is: if people think an app will help them out, how hard it is to use, if you have the things you need to use it, and whether other people you know are using it. So if apply the UTAUT-2 thing to pharmacy apps you can figure out what drives customers to download and use the apps. It gives you an idea about what makes apps catch on or not. **Chang, A. (2012).** This understanding can help policymakers and healthcare professionals formulate strategies to facilitate widespread adoption of digital pharmacy services, thus ensuring convenient and safe access to medicines for all individuals, especially during emergencies such as the COVID-19 pandemic **Venkatesh, V., (2022).**

In view of the backdrop outlined above, the present paper seeks to understand which of the factors around UTAUT 2 are influencing the adoption of digital app-based pharmacy deliveries and thereafter underpin the desistence towards Purchase intention leading to the actual buying behavior of customers.

Overall study brief focussed on the first section. Then in the second section find the points arising from the research of literature. Research methods are specified in third section. Thereafter the fourth section is about the results of the study. The last section of this research provides the conclusions, limitations, and scope for future research.

REVIEW OF LITERATURE

The research work is based on a systematic literature review approach according to Okoli (2015) that assessed both research of comprehensive reviews and single studies about determinants of adoption of digital apps in purchasing of drugs. An extensive literature selection procedure was employed to determine the totality of the literature and was selected into the review (which was 28 studies in number). The inclusion criteria ensure the

total quality of the literature in the review, which only information that was published in English over the last five years of academic work joined the qualitative review, A close examination and assessment of the literature quality was conducted to select a total of 28 pieces of literature on the issue. All the text of work-study relative to the subject and the internet are available for processing out to meet the standard of the research. A total of four pieces of paper were discarded from the investigation due to revision because of iterative procedure and quality concerns. The current study is based on a comprehensive review of twenty-four relevant academic references related to the study deep investigate.

Following is the literature review on the topic:

- **Nayak, B., et al (2023).** The goal of this research is to determine what factors in Indian culture lead to the acceptance and subsequent switching of OPAs (online pharmacy applications). To analyze the factors that influence "consumers' switching intention" (CSI), a push-pull-mooring (PPM) model was developed. The 252 Indian OPA users who responded to the survey were polled via online form. It was hypothesized that the push, pull, and mooring effects of the constructed objects might be analyzed. Structured equation modeling (SEM) was used to analyze the connections between the various variables. The study provided an explanation of how PPM concepts affect CSI in the context of OPA usage. "Perceived usefulness," "perceived ease of use" and "alternative attractiveness" had a substantial "pull" influence on CSI. Researchers discovered that "switching cost" had a "mooring" effect on CSI, whereas "customer involvement in decision-making" had a "push" effect. The study gave useful data regarding customer behavior toward OPAs. Managers may use these results as a basis for developing strategies that attract and keep OPA clients.
- **Chakraborty, D., et al (2023).** The present research strives to explore consumer roadblocks to adoption of MDAs, and their attendant emotional and behavioral responses from the perspective of innovation resistance and SOR framework. To that end, over a period of two years, more than 400 respondents were surveyed in India by resear5chers as part of a longitudinal study designed to address the research question. The average age of respondents was between 36-45 years. Additionally, while the previous one was concerned with the risk barrier as a major determinant for buying MDAs or not by respondents, another other study differed. In addition, it advances understanding on how customers think and feel when they decide to use MDA. Pharmacy delivery services can therefore rebuild such apps in a way that will excite, synchronize and direct its users based on this new information.
- **Bhalerao, H., & Mandalik, D. (2022).** Recent advancements in mobile technology have transformed devices like smartphones. Similarly, the healthcare industry is embracing technological innovations for better outcomes. Smartphone use and internet access have increased the popularity of online pharmacies, offering benefits such as lower costs, doorstep delivery, and convenience. This study examines the users and challenges of online pharmacies. Data was collected from 220 participants and analyzed using correlation and structural equation modeling. The results suggest that pharmacists positively influence the usage of healthcare mobile applications.
- **Ng, S. N., et al (2015).** This study aims to understand pharmacists' views on mobile medical apps in pharmacy practice and the influences that drive or hinder their adoption. Using a quantitative survey, it explores the factors that shape pharmacists' choices to download medical apps. The survey was distributed to pharmacists in various specialties across Malaysia. Statistical analysis using Partial Least Squares (PLS) helped analyze the quantitative data. The study identified six positive factors promoting app usage: perceived usefulness, ease of use, visible results, social influence, compatibility, and supportive environment. Two negative factors discouraging usage were also found: security concerns and reluctance to make changes. Two obstacle factors, safety worries and being opposed to change, had a notable effect on intentions to use healthcare apps. This new model did a good job of forecasting actual use of these apps in the real world. Researchers designed this model to help pharmacy tech experts convince pharmacists to use healthcare apps more. Essentially, how useful and trustworthy the apps were played a big role in if people wanted to download them. Fears about security could make pharmacists hesitate to adopt these apps. This study gives us the first proof of a two-part model for technology adoption. It highlighted ways that leaders could sway decisions to increase the use of mobile tech at healthcare institutions.

- **Riantini, R. E. (2020, August).** Due to technological advancements in distribution, consumers can select the medium most suitable for their needs during the transaction. A purchase of medication through a web-based pharmacy app is one example. The term "digital pharmacy" refers to an app created by traditional drugstores for use on smartphones. There is no longer any need for Indonesians to physically visit a pharmacy to purchase or place an order for medication thanks to this app. This study intends to identify the extent of the relationship between the TAM variables as an indication of the acceptance of the use of digital pharmacy applications by Jakarta pharmacy customers or by causality research methodologies. The research was done by putting the theory to the test. Starting with the distribution of questionnaires and ending with the analysis of data using path analysis, this study took three months to complete. Among the TAM variables, Actual Use or adoption of digital pharmacy application services in the city of Jakarta is most strongly influenced by Behavioral Intention, with a path coefficient equal to 0.616.
- According to **Ghosh et al. (2023).** Based on the widely-used Technology Acceptance Model (TAM) in behavioral science, this study aims to determine what factors drive Indian consumers to make purchases from online pharmacies (or "E-pharmacies") that are promoted via social media. This research aims to examine the influence of social media on the decision to buy medicine online (the dependent variable) and the link between the independent factors of trust, perceived usefulness, and perceived intention (the independent variables). Using a self-administered, online survey, we collected data from 100 Indians of varying ages to perform a descriptive qualitative examination of the millennial generation in the Indian context. The study is cross sectional which analyzes the relationship between variables and influence of the social media on the purchase of online pharmaceuticals. Perceived intention emerges as a more important construct for purchasing medicines online in addition to trust, and the results show a positive relationship between the independent variables trust, perceived usefulness, and online medicine purchases influenced by social media.
- **B. Sampat & K. C. Sabat. (2022).** The term "online pharmacy" refers to any website or mobile app that sells medicines or medical supplies via the Internet. The study's goal is to look into how popular online drugstores have become in India. To achieve this, a conceptual model was built by expanding the technological acceptance model (TAM) to include trust and perceived risk. Structural equation modeling (SEM) was used to conduct an empirical test of the conceptual model. According to the findings, the two most influential elements on Indian consumers' attitudes and behavioral intentions towards the adoption of online pharmacy are trust and perceived usefulness. The findings also revealed a negative correlation between user perceptions of risk and their attitudes and intentions toward online pharmacy purchases of healthcare items and services. With a firm grasp of what drives customer behavior, online pharmacies can better position themselves to profit from the growing demand for their services.
- **Barnoy, S., & T. Shemesh. (2020).** Today, mHealth apps (or mobile health apps) are widely used around the world. However, the problem lies in accurately measuring cumulative usage. The Technology Acceptance Model (TAM) suggests that it is possible to predict the usefulness of technology based on perceived usefulness and sensitivity to the usefulness of technology. These factors, taken as a whole, act as predictors of actual technology use as they predict people’s intentions to use the technology. Of the 200 participants, 168 completed survey questions based on a modified TAM Likert Scale. 61% of them reported using mHealth apps on their smartphones; 81% said they use mHealth apps from HMO providers. The researchers found that Generation Y individuals were less concerned about their health information deteriorating when using mHealth apps. In addition, mHealth app users provided more promising answers to questions about TAM than non-users, with TAM components accounting for 51% of the total variance in intention to use mHealth apps. A key factor in the increased adoption and use of mHealth apps is the role of healthcare organizations as providers of such tools. Developers of health-related mobile technologies will need to address the question of whether user experience or network design represents the underlying differences in user performance across generations the solution of the.
- **M. Rajak and K. Shaw. (2021).** providing health care, especially in developing countries with limited resources, has become a burden on the government. mHealth (mobile health) has the potential to significantly reduce health problems in the long term. It is also used in prophylaxis. Despite the potential, there is limited research on the use of mHealth technologies. India as a context has not been sufficiently

studied. After conducting an extensive literature review, this study used TAM to identify potential research areas related to effective use of mobile health services By adding six additional dimensions—social affect, technology anxiety, trust, perceived risk, perceived body condition, and resistance to change—this study provides a theoretical extension of the TAM proposed by Davis. After a comprehensive literature review, a closed questionnaire was developed to confirm the associations. Two hundred and eighty-nine valid responses were collected from users of mHealth services for this study. Exploratory and confirmatory factor analyzes have been conducted to examine the constructs of the model in Indian contexts. Moreover, the model has been well validated for use in India through structural equation modeling. confidence, behavioral intentions, and social influence all changed significantly with increased mHealth use. The empirical research showed that these important factors significantly predict the user's intention to adopt mHealth services. This study explores implications for researchers and policymakers. Limitations and possible extensions of the study are discussed.

- **David R. (2022).** People's attitudes toward technology have shifted dramatically since the Covid-19 outbreak, allowing them to go about their daily lives with no need for face-to-face human contact. Everything from starting work or school from home to getting the supplies you need for the day may be ordered from your smartphone. This behavior also effects the health sector, pharmacies, which has resulted in many pharmacies whose intensity of consumer arrivals to pharmacies has fallen. Pharmacists play a crucial role in the operation of the pharmacy and must be able to adjust to shifting demographics in order to fulfill their duties of dispensing high-quality health products, informing customers about available pharmaceuticals, and enhancing the pharmacy's bottom line through the implementation of e-iPOS. The study focuses on pharmacists embracing technology to operate an integrated pharmacy business using the UTAUT 2 approach to examine the elements that could impact them in adopting and accepting a new technology system to run the pharmacy business from upstream to downstream. This strategy has been utilized empirically in examining what factors affect professionals' adoption of health applications. Google forms were used to send out the surveys to local pharmacies. Only 202 of the 269 data points were considered to be accurate. Validity and reliability analyses were performed before proceeding with the data analysis. After that, we put the model and our data-driven hypotheses through their paces in SmartPLS. According to the findings, the intention to use the new technology of electronic - integrated pharmacy operating system (e-iPOS) can be predicted by social impact, price value, and habit. Additionally, routine significantly influences how e-iPOS is utilized.
- **Williams, P. A., & Ami-Narh, J. T. (2012).** Over the past two decades, research has been conducted on ICT diffusion. The use of eHealth applications, which is the newest information technology in the healthcare industry, enables Africans to improve their access to treatment, as well as the efficiency and effectiveness of services. Successful deployment of IT solutions must take the input and commitment of stakeholders. The behavioral perspective of health professionals is crucial for a successful eHealth program. The study highlights that although there are some studies on the use of technology, little emphasis has been placed on the adoption of e-health in Africa. To better evaluate whether eHealth can be applied in African healthcare, this study updates the Common Unified Theory of Acceptance and Use of Technology (UTAUT) model to include new elements and managers Thus this research contributes to the development of the theory in health care and information and communication technologies.

Research Gap

While most prior research focuses on online health care use, there is no research on online pharmacy use. This lack of research is concerning given the recent popularity of mobile app-based drug delivery systems. It is important for health care providers and patients to understand the factors that affect the use of these services. Thus, the UTAUT-2 model can be used to explore the use of digital app-based medication delivery systems to address the current knowledge gap and gain insights

While many studies have been conducted using the TAM model, many have never used the UTAUT model, which demonstrates the importance of social influence and the presence of favorable environmental conditions Health care providers can meet the needs of their patients and expectations are better addressed if this model is used to identify factors affecting consumer adoption behavior.

Although research on this topic is lacking in India, it is important to better understand the factors influencing

consumer adoption behavior as digital app-based services gain popularity and researchers need to be able to add knowledge base and inform policy makers and healthcare professionals in India This is good news for the Healthcare sector as a whole, and the strengthening of medical services received by patients and consumers across the country.

Based on the above research gap – The objectives of the study are:

- To identify the factors influencing adoption of digital app based pharmacy delivery services
- To examine the impact of UTAUT-2 factors on Purchase intention leading to actual buying behavior of customers

RESEARCH METHODS

The following research methods are used for the study

The **research philosophy** under consideration is positivism. The research philosophy of positivism is congruent with the UTAUT-2 model, which is utilized to examine the various aspects that impact the adoption of digital app-based pharmaceutical delivery systems.

The **research approach** employed this study had an inclusionary approach. Deductive techniques are commonly used in positivist research because they rely on formulating hypotheses derived from preexisting theories, followed by empirical testing through data collection and analysis in step a in the next issue

Research Methodology – quantitative analysis of the mono method. The study focuses on customers using this application, using a quantitative analysis method. Researchers have the ability to collect data on many aspects of app usage, including frequency, customer satisfaction, and individual motivations for using the service

The researcher employs the **Survey method** As a studying procedure for gathering comments from users of the utility. The survey includes questions on frequency of app utilization, patron hobby stage and motivation for the usage of the service. The fundamental goal of the researcher is to attain an ok pattern length to make sure that the findings from the study correctly reflect the characteristics and behavior of the target population

The present investigation pertains to a **cross-sectional research design**. The survey became achieved through the researcher over a period of 3 months in order to accumulate facts from a extensive sort of customers of mobile applications. The selected time frame affords an ample sample length and enables the researcher to efficaciously capture any ability fluctuations in app utilization that can be motivated through seasonal elements.

The **size of the sample** used in the study entails the choice of a pattern of one hundred seventy five customers of on-line pharmaceutical transport apps from. Using the Cochran formulation to determine the pattern size required for a 7.Five% margin of blunders and a 95% self-assurance stage.

The **unit of analysis** This examine is the patron base of virtual app-based pharmacy transport services in, The focal factor of exam in this studies is the purchaser base of virtual app-based totally pharmacy shipping services. This look at is non-chance sampling, especially comfort sampling. The utilization of comfort sampling turned into justified due to its capability to provide researchers with convenient access to a massive pool of feasible participants across.

Sample technique: This take a look at includes the development of a meticulously designed questionnaire. This questionnaire is built by way of drawing upon earlier research carried out at the UTAUT-2 Model, in particular focusing on the adoption of on line pharmacy packages and consumer conduct. The survey device comprises inquiries relating users' subjective evaluations of the app's level of usability, utility, and their inclination to include the provider. The utilization of a standardized device enables researchers to maintain uniformity within the process of statistics amassing and allows the assessment of findings throughout diverse investigations. This allows a thorough exam of the determinants impacting the recognition of online pharmacy packages and offers useful perspectives for enhancing the supplied offerings.

The **study utilized SPSS Version 22 and AMOS Version 22 software for data analysis**. The usage of SPSS Version 22 and AMOS Version 22 software in studies enables the powerful examination of amassed data and the evaluation of inter-variable correlations. Using numerous software program tools, the researchers hired statistical techniques along with issue evaluation and structural equation modeling to decorate their comprehension of the variables that effect consumers' views and intentions toward the adoption of on-line pharmacy applications.

RESULTS AND DISCUSSION

Demographic profile

The demographic profile of the participants in the study show that 47.4% are female and 52.6% are male. 34%

participants in the study are in the age group of 31-40 years, 18.2% are in the age group of 41-50 years. 23.9% participants each belonged to the age bracket of 18-30 years and above 50 years. 46.4% participants in the study have completed their bachelor's degree and 31.3% have completed their master's degree. 12.2% have completed their intermediate education and small percentage of 2.9% have completed their secondary education. A majority of 66.5% are married and 33.5% are unmarried. 40.4% participants earn between 5 Lakhs-10Lakhs and 30.9% participants earn above 10 lakhs annually.

Item analysis for Factors influencing use of Digital App Based Pharmacy Delivery Services – In Light Of Utaut-2 Model

Through the extensive review of literature total of 27 items were identified to measure the factors influencing purchase of medicines from digital app. The UTAUT-2 model constructs included in the study were perceived efficiency with a mean score of 4.23, Effort expectancy with a means core 4.13, Facilitating conditions had a mean value of 4.22. Hedonic motivation, Habit value and Price value had mean scores of 4.21, 4.32 and 4.11 respectively. The subjective norms construct had a mean value of 3.89. The mean scores indicate the level of agreement for the constructs and indicate high level of agreement for the influence of UTAUT-2 model constructs. The standard deviation is below 1.000 indicating least variation in responses. The skewness and Kurtosis are within the acceptable criteria of -3.00 and +3.00 indicating normal distribution.

Testing of Hypothesis

Step – I Exploratory factor analysis

KMO Bartlett's statistics

Table 1- KMO and Bartlett's statistics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.850
Bartlett's Test of Sphericity	Approx. Chi-Square	7659.313
	df	170
	Sig.	0.000

Barlett's Test of Sphericity at the 5% stage of importance and the KMO degree of pattern adequacy, which is identical to zero.850, are each tremendous. The correlation matrix does no longer look like an identity matrix, and its chi-square price, 7659.313, with a significance degree of less than zero.05 and one hundred seventy degrees of freedom, helps this perception.

Communalities

Communalities for the 27 items in the study are in the range of 0.512 – 0.854 that is a good measure of the items under each construct are consistency.

Total Variance explained

The total of squared loadings that has been removed accumulates to about 71.211 % of the original loadings. 7 components are discovered while applying the approach of Factor Analysis, according to the results of the study.

Rotated Component matrix

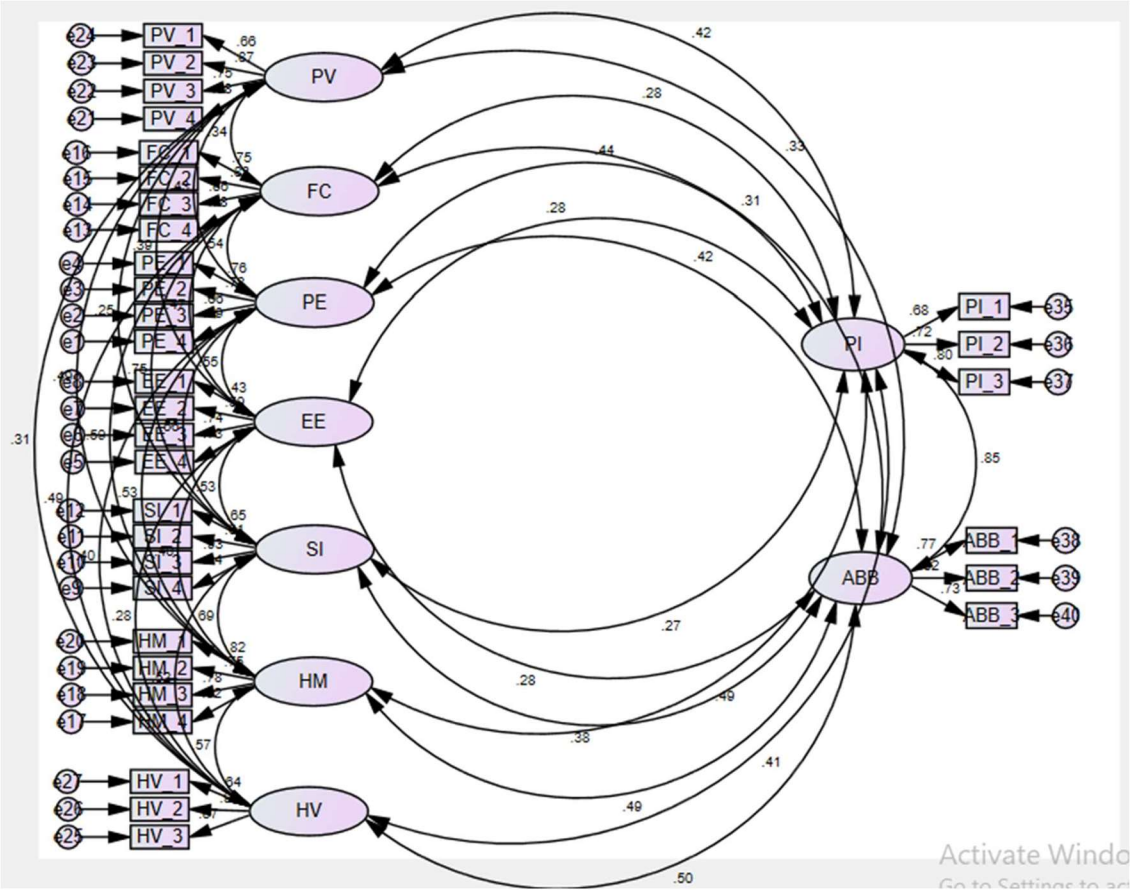
It is also possible to determine the number of items in each construct and its factor loading through the rotated component matrix. For example, "Facilitating conditions" construct has 4 variables with factor loadings ranging from 0.56 to 0.7422. Likewise, 'Hedonic motivation' contains 4 factors with loadings from factor vaue 0.722 to 0.692 and 'Price value' has four variable with Factor Loadings varying from .828 to .608. Four items have been used for each of the two constructs: 'Effort expectancy' (v1-v4) and 'habit value' (v1-v3) factor loading range between .749-.542 and .877-.733 respectively. Moreover, there are 4 items in the scales for "Perceived efficiency" (factor loadings on v1-v4 fall between .892-.742) and "subjective influence" (.811-.453).

Step – II Inter-item correlations.

The covariance between two random variables is a statistical measure that can be used to show how closely and in what way they differ from each other in other words, this concept describes the relationship between two variables in order to change in one is the change in another. The property in question is the ability of a function to retain its morphology after a copy change occurs in a variable. Multiplying the units of the two variables is how we get a measure of covariance between them. Both positive and negative results are possible for the covariate. In the present study, the covariance should be positive because the constructs are positively correlated. Confirmatory factor analysis examines the extent to which items are correlated across constructs. Correlations

between items should range from 0.15 to 0.20 for general constructs and from 0.40 to 0.50 for specific constructs, as suggested by Clark-Watson (1995).

Figure 1- Inter-item correlation – UTAUT 2 Variables



The correlations show that there exists a positive correlation between the constructs. The most important correlation between the independent constructs –UTAUT-2 Factors have a strong positive correlation with the dependent variable –Purchase intention and actual buying behavior. The Pearson correlation R-values are between 0.285 and 0.500, which are well within the criteria to affirm internal consistency.

Step III- Using this inter item correlations- Convergent and discriminate validity

Figure 2- Convergent and discriminate validity

	CR	AVE	MSV	MaxR(H)	PE	EE	SI	FC	HM	PV	HV	PI	ABB
PE	0.793	0.693	0.307	0.814	**0.702**								
EE	0.722	0.603	0.293	0.756	0.541	**0.635**							
SI	0.848	0.590	0.567	0.906	0.554	0.532	**0.768**						
FC	0.882	0.651	0.567	0.888	0.534	0.469	0.753	**0.807**					
HM	0.832	0.555	0.483	0.847	0.518	0.403	0.695	0.591	**0.745**				
PV	0.831	0.554	0.242	0.859	0.422	0.391	0.247	0.341	0.492	**0.744**			
HV	0.851	0.660	0.327	0.893	0.391	0.284	0.522	0.490	0.572	0.306	**0.813**		
PI	0.776	0.537	0.541	0.784	0.444	0.282	0.275	0.286	0.491	0.422	0.408	**0.733**	
ABB	0.817	0.598	0.455	0.823	0.415	0.285	0.384	0.311	0.488	0.332	0.495	0.855	**0.773**

The term "convergent validity" describes the process of determining how well several indicators of a particular construct agree with one another. Consider the indicator's factor loading, composite reliability (CR), and average variance extracted (AVE) to determine convergent validity (Hair Jr. & et al., 2017). From zero to one is the range of possible values. A value of AVE greater than 0.50 is required to guarantee convergent validity.

Maximum shared square variance > than average variance explained > than composite reliability > than AVE >

than MaxR(H) > than MSV

The Fornell-Lacker criterion (Fornell, C., Cha, J., and Bagozzi, R. P., 1994) is used to assess discriminant validity. As described by Hair Jr. and colleagues (2017), this method includes contrasting the square root of the average variance extracted (AVE) with the correlation of latent constructs. Typically, a latent construct is more effective at explaining the variation in its own indicators than in the indications of other latent constructs. According to Hair Jr. et al. (2017), correlations between latent constructs should be weaker than the square root of the average variance extracted (AVE) for each construct.

The research instrument is valid and reliable after examination of all relevant dimensions and constructs within the context of the current model.

Step – IV Model summary

Table 2- Model fit statistics

Model Fit Summary				
CMIN				
Model	NPAR	CMIN	Degrees of Freedom	CMIN/DF (χ2/df)
Default model	103	551.889	172	3.208657
Criteria				<3.000
RMR, GFI				
Model	RMR	GFI	AGFI	PGFI
Default model	0.031	0.891		
Criteria	<0.100	>0.80		

The calculated value of the Chi-square divided by the degrees of freedom (χ2 / df) falls within the acceptable range of 3 (specifically, 3.208). The observed goodness of fit (0.891) exceeds the expected values for the proposed attributes. The boundary estimation yields a value of 0.031 for the RMR. The model in question is widely acknowledged within the academic community and demonstrates a reasonably satisfactory level of fit based on the available measures.

Structural relationship between variables

Table 3- Structural relationship – Impact of UTAUT-2 Factors on Purchase intention and actual buying of medicines through digital apps

			Unstd Estimate	Std Estimate	P
PI	<---	PV	0.163	0.186	***
PI	<---	FC	0.022	0.037	0.477
PI	<---	PE	0.285	0.242	***
PI	<---	EE	0.021	0.025	0.653
PI	<---	SI	0.133	0.066	0.197
PI	<---	HM	0.262	0.318	***
PI	<---	HV	0.095	0.248	***
ABB	<---	PI	0.957	0.855	***

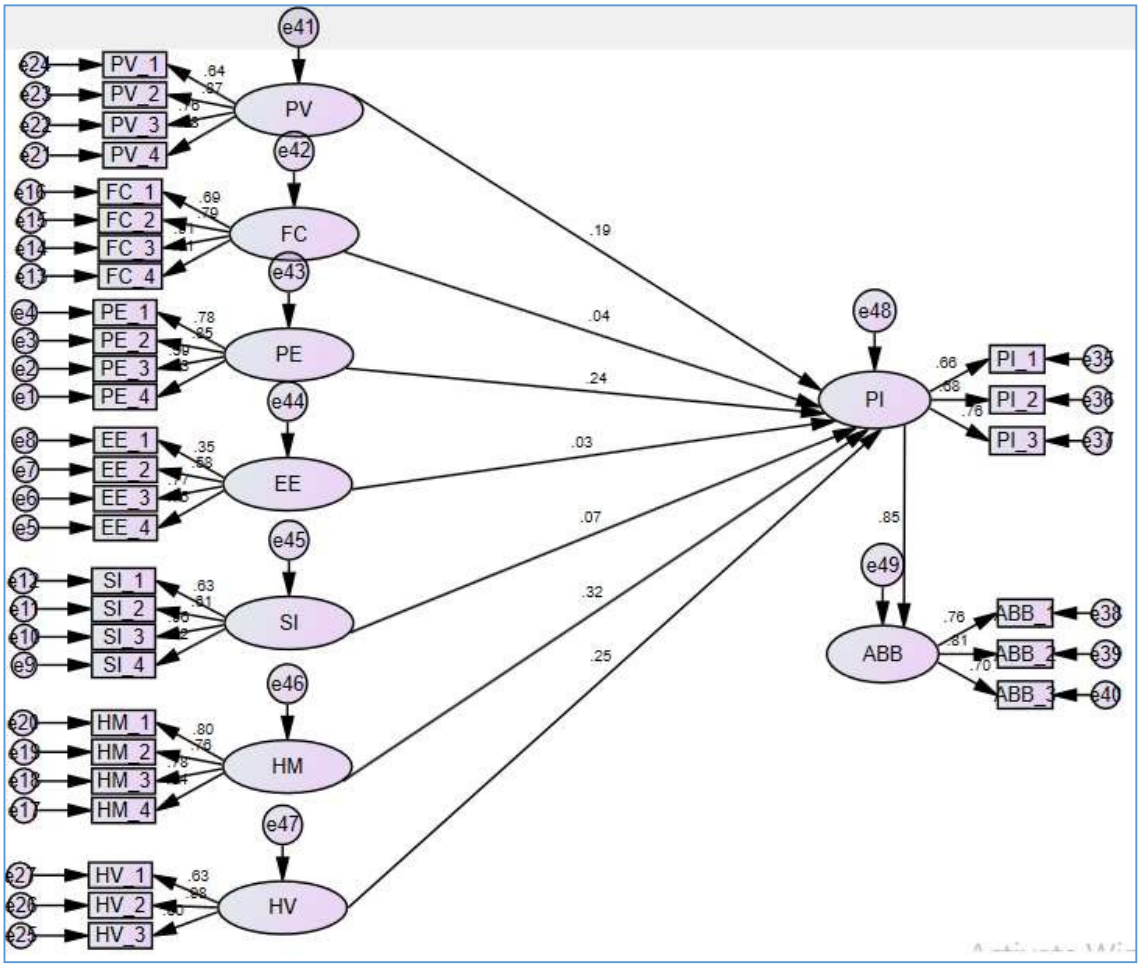
The results of the structural equation model indicate that out of the 7 UTAUT-2 Model only 4 factors statistically impact the adoption of digital app to purchase medicines. The impact of UTAUT -2 factors on Purchase intention of medicines through digital app was statistically significant only for Price value (B=0.163, b=0.186, p=0.000) , Perceived expectancy (B=0.285, b=0.242, p=0.000), Hedonic motivation (B=0.261, b=0.318, p=0.000) and Habit value (B=0.095, b=0.248, p=0.000).

The findings derived from the structural equation model demonstrate that, a number of the seven elements outlined

in the UTAUT-2 Model, best four additives showcase a statistically good sized influence at the adoption of digital programs for the reason of buying prescription drugs. The factors encompassed in this observe include monetary fee, perceived expectancy, hedonic motivation, and habit price. Price value relates to the subjective assessment of the cost-efficiency related to utilizing a digital software for the purpose of availing pharmacy delivery offerings. Perceived expectancy pertains to the cognitive notion held by way of the person that the application will meet their anticipated outcomes and supply a person-pleasant and powerful come across. Hedonic motivation relates to the subjective sensation of delight and enjoyment acquired from making use of the utility, whereas habit value encompasses the effect of previous reviews and installed exercises on the adoption of the digital application. In fashionable, these characteristics exert a vast affect on individuals' inclination to include digital app-primarily based pharmacy delivery services.

This finding reveal that people are willing to use digital application-based pharmaceutical services because they accept that these services will meet their expectations and provide them with convenience. Overall, the results show that variables such as price and scented expectations have a substantial impact on consumers' intention to purchase products from digital application-based services Statistical analysis find a significant effect of UTAUT-2 parameters on the intention to the purchase medicines using the digital application, especially in terms of value (B=0.1630, b=0.1860, p=0.000). This finding indicates that individuals are more likely to accept digital app-based medication delivery when they find it economically beneficial the Statistical tool analysis showed that the UTAUT-2 variables were particularly influenced by the meaning to the digital application will fall on the drugs. In particular, perceived expectations had a statistical powerful effect, with coefficients of B=0.2850, b=0.2420, and p=0.0000. This finding suggests that individuals are more willing to use digital app-based medication dispensing and their control services as they believe that these usefulness will meet their expectations and facilitate them. In general, the results show that variables such as value and perceived expectations have a significant impact on the consumers' attitudes towards pharmaceutical products through digital app-based drug delivery services so Statistical analysis showed that several UTAUT-2 characteristics on the intention to purchase digital drugs app There was an effect, especially for interest-motivation (B=0.2610, b=0.3180, p=0.0000).Additionally, research showed that high hedonistic individuals showed a greater tendency to purchase heavily in relation to digital app-based drug delivery services This suggests that individuals who value the pleasure and satisfaction derived from consuming the service in practice the that the value itself Being more inclined to consider the medicines to be used for its needs it is therefore important for pharmacies to provide products to improve the user experience and provide service convenience and satisfaction to provide and effectively attract and retain customers takes precedence. The statistical analysis showed that the UTAUT-2 variables had a significant effect on the intention to purchase medicines using the digital application. Specifically, the attitude value showed a statistically significant relationship (B=0.0950, b=0.2480, p=0.0000). This finding indicates that individuals who highly prioritize the practice of using digital applications to obtain medications are more likely to maintain their intention to use medications dispensed in pharmacies so it is important to delivery pharmacies develop repeat behaviors among their customers In addition to the development priorities , continuous efforts should be made to enhance the application functionality and user experience to enhance its increasing the ability to habituate and ultimately stimulate purchase intent

Figure 3- Pictorial representation – Impact of UTAUT-2 Factors on Purchase intention and actual buying of medicines through digital apps



One unit boom in suggest rankings of purchase purpose of drugs thru digital app will cause eighty five% growth in real shopping for behaviour of medicines via digital apps and this relationship is statistically large. (B=0.957, b=0.855, p=0.000). This finding indicates that people who've a better purpose to buy medicines thru virtual app-based pharmacy delivery services are much more likely to comply with through with the actual purchase. The robust advantageous correlation among purchase goal and buying behavior highlights the importance of knowledge the elements that have an impact on people' willingness to adopt these offerings. By identifying and addressing those factors, digital app-based totally pharmacy delivery services can increase their user base and average adoption rate.

Understanding purchase intentions and prescription drug purchasing behavior through the use of digital services on the UTAUT 2 model is critical There are two aspects of this model that may have an impact on adoption of digital app-based drug delivery. Many factors that can affect a behavior include performance expectations, expected effort, social influences, and environmental facilitators With an understanding of these factors, health professionals and practitioners can designing and recommending virtual software-based medicine services that clients meet needs and expectations, ultimately achieving higher uptake and utilization of their offerings See already, Factors facilitating the use of virtual packages by pharmaceutical buyers and costs, overall performance expectations, quality costs, motivating interest Important. The product value is related to the convenience and

functionality offered by virtual packages, enabling consumers to secure prescription ordering and better maintain their medication use. Performance expectations refer to customers' trust and confidence in the application's ability to effectively meet their healthcare needs. The concept of addictive value is appropriate when users set up regular sampling and commit to using the benefit for their culinary stimulating needs capture the satisfaction and enjoyment that experienced people get by helping people leverage digital advantage, making it a more attractive option.

CONCLUSION

Consumers encounter many limitations when utilising digital programs for the procurement of pharmaceuticals, encompassing apprehensions regarding the confidentiality and safeguarding in their private data, a dearth of confidence in on-line pharmacies, and constrained availability of internet services in precise areas. Furthermore, certain people in the customer population may also showcase reluctance in embracing digital pharmacy shipping structures that are app-based totally, in general stemming from restrained skillability in era or apprehension regarding capacity technical demanding situations. In addition, the exorbitant charges related to smartphones and internet plans may additionally offer a powerful impediment for folks who own constrained financial approach.

There is a advice for governmental intervention to offer assistance to online pharmaceutical transport packages through the availability of subsidies for mobile phones and facts plans, specifically focused on humans with low-profits backgrounds. This degree could successfully mitigate the virtual hole and assure regularly occurring access to those offerings, irrespective of people' monetary occasions. In addition, the implementation of rigorous standards and certifications for on-line pharmacies can make a contribution to the establishment of customer believe and cope with apprehensions bearing on the legitimacy of prescription drugs. By mitigating those boundaries and advocating for the benefits of online pharmacy delivery services, a larger quantity of individuals will have the opportunity to avail themselves of the convenience and accessibility they provide.

It is suggested that pharmaceutical groups interact in collaborations with on line pharmacy structures with a purpose to guarantee the secure and punctual distribution of prescription drugs. This collaboration has the ability to no longer only bolster the status of net-based totally pharmacies, but additionally supply a streamlined and fine experience for purchasers. Furthermore, pharmaceutical companies have the ability to provide reduced rates or unique agreements for online transactions, so improving the affordability of prescribed drugs and promoting using this available alternative through a larger populace. Through the usage of the virtual revolution and collaborative efforts, on-line pharmacies and pharmaceutical organizations have the ability to greatly beautify the accessibility of healthcare for people on a international scale.

Given the modern mindset of the current era that places greater emphasis on costs and expected outcomes, it is imperative that pharma digital applications deliver transparent drug pricing and complete information on drugs ho is the first. In addition, online pharmacies have the potential to form collaborations with healthcare providers by providing virtual consultations and prescription services, increasing the convenience and availability of this approach Technology implementation to dramatically change healthcare in digital medicine by facilitating collaborative efforts -And has the power to enhance wellness

SCOPE FOR FURTHER RESEARCH

The present investigation is constrained to the perspectives of customers.The call is now presented to the customer service manager. Parallel researchers may turn their attention to capturing pharmaceutical companies' perspectives on digital applications of distribution services. In order to fully understand the factors that lead to the use of digital services by application-based pharmacies, it is necessary to examine the perspective of pharmaceutical companies. The involvement of these organizations is crucial in the fulfillment and gaining of such services, and their efforts can offer vital insights into the problems and advantages linked to the adoption of this new technology. Future studies in this sector may investigate the perceived block and boost that Indian pharmaceutical businesses have it when adopting digital app-based pharmacy delivery services.

The present research investigation develops a quantitative methodology. It is suggested that the reasech which are conducted in the future employ a qualitative analysis to gain a very deep understanding of the viewpoints and encounters of pharmaceutical companies businesses in relation to app-based pharmacy delivery services. Qualitative research methods, such as interviews or focus groups, provide researchers with the opportunity to investigate the verious aspects that can perfectly impact the decision-making process of pharmaceutical businesses. These factors also have issues related to privacy and security, logistical complexities, and potential financial advantages. By integrating both quantitative and qualitative methodologies, forthcoming studies can

offer a holistic comprehension of the obstacles and motivators encountered by pharmaceutical businesses when embracing digital app-based pharmacy delivery systems.

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