



## ONLINE SHOPPING BEHAVIOUR VIA AI ENABLED SHOPPING PLATFORMS: A CONCEPTUAL FRAMEWORK.

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### ABSTRACT

The study aims to investigate the impact of various attributes of online shopping platform on purchase intention of consumers. Convenient sampling was employed to collect data through an online questionnaire from 380 adult customers of major shopping platforms in Chennai region. The independent variables for the study are Shopping Experience, Risk Perception and Website quality and the dependent variable is Purchase Intention. Structural equation modelling (SEM) with maximum likelihood estimation (MLE) via AMOS 23 was used. Modified S-O-R model explained considerable variation in online Shopping. The study showed that AI Shopping experience and Perceived Use are significant and positive predictors of Purchase intention and there exists no significance between Perceived Ease of Use and Purchase intention. It was further concluded that online consumers focus on Perceived Ease of Use while doing online shopping, hence retail strategy that ensures secured transaction, alongside creating a platform that gives them a shopping delight.

**Keywords:** Online shopping, Risk Perception, shopping experience. Stimulus-organism – response (SOR).

The pandemic known as Covid-19 and during the subsequent phase of the pandemic, due to a disrupted supply chain and unusual consumer behaviour such as fear of making a purchase and rose demand for food that is vital in supermarkets, triggered the shelves to empty (Laato et al., 2020). Online retailing has grown to be a crucial channel for many businesses marketing and selling their goods and services globally. Online groceries as well as food purchasing (OGS) services emerged as an efficient channel in the context of the COVID-19 pandemic because the physical mode of grocery and food shopping is susceptible to infection and associated with poor accessibility. OGS services, unlike physical retail stores, serve the public well-being curiosity by minimising social interactions and shielding users from both high as well as low health risks. (H. Hung-Hao Chang & Meyerhoefer, 2021). (Chiu, Wang, Fang, & Huang, 2014). Online consumer involvement behaviors, whether through social media platforms or firm-hosted brand communities, can be viewed as customers' both beneficial and detrimental personality-expressions about the company, their goods and services. (Hollebeek & Chen, 2014). According to Uwemi and Fournier-Bonilla (2016), e-Commerce has had remarkable success and significantly benefited economies and societies in developed countries, but the situation is very different in developing nations. The development of e-commerce has been hampered by numerous issues in these nations. Consumers in developed nations have changed their lifestyles by becoming accustomed to using the Internet and benefiting from e-commerce. Consumers in countries that are developing, on the other hand, are accustomed to in-person transactions, lack faith in

electronic systems, and cannot afford the associated risk. This situation demonstrates the need for research into the critical elements that could persuade consumers in developing nations to adopt e-commerce in order for them to experience the same economic and social advantages that developed nations currently do. According to this suggestions, researchers can examine the influences on behaviour using the stimulus organism response S-O-R model (Mehrabian & Russell, 1974) (Lee & Yun, 2015). The S-O-R model has not yet been used in a study to explain consumers' intentions to make online purchases.

## CONCEPTUAL BACKGROUND

In this study, the Stimulus Organism Response model (Mehrabian & Russell, 1974) is used as a theoretical stepping stone. Three elements make up the S-O-R model: stimuli, organism & response. Generally speaking, stimuli are viewed as being outside of the person. An organism typically responds to the internal conditions brought on by external stimuli. Response, which can take the form of an approach or avoidance behaviour, is thought of as the final result. This model typically presupposes that an organism is exposed to outside stimuli, which the organism will uniquely identify, and that the organism then reacts in accordance. In this study, the S-O-R model is operationalized by using consumers' perceptions of characteristics on purchasing on websites as stimuli, attitude as an organism, and intent to buy as a response. The current study aims to investigate how different features of an online shopping platform influence consumers' purchase intentions.

## LITERATURE REVIEW AND RESEARCH HYPOTHESIS

### Purchase intention

Intentions are characterised as an individual's subjective assessments of an object in order to act in a specific ways in response. (Ajzen & Fishbein, 1975). The emergence of new media and the development of technology, which have altered how customers connect and interact with businesses, result in online behavioural customer engagement. (2012) Jahn & Kunz. Lim et al. (2016) point out the need for further research into online purchase intention and behaviour. In light of the foregoing, the first research hypothesis for this study investigates the impact of consumer purchase behaviour on online purchase intention.

### AI Shopping Experience

This study draws the conclusion that consumers' use of AI technology on online shopping platforms can provide them with intuitive AI experiences through intelligent identification and search, intelligent recommendation, and virtual customer service assistants. This conclusion is based on a substantial body of existing literature on AI marketing at home and abroad as well as the practise of industrial workers.

Shopping experience is form of ease of use which will be interpreted as the consumer's expectation that shopping online will be as easy as possible on both their physical and mental well-being. According to the literature, this view has a favourable effect on consumers' perceptions of e-commerce because consumers will have a favourable opinion of it if using online stores is easy. (Agag and El-Masry, 2016). Facilitating conditions include elements that give users the impression that their company has the resources needed to support the system's use. The model includes some moderating variables, such as gender, age, experience, and voluntariness of use, even though the four previously mentioned variables are the main

independent variables.( Al-Saedi et al 2014). For seasoned Internet users who are extremely busy during regular shopping hours, purchasing quick and easy may be very beneficial. (Cho & Sagynov, 2015).

**H1: There is a positive relationship between shopping experience and purchase intention toward online shopping.**

### **Perceived usefulness**

While hedonistic qualities include intrigue, entertainment, visual appeal, escape, intrinsic enjoyment, hang out, relaxation, self-expression, and sustained involvement, utilitarian qualities include desire for control, autonomy, efficiency, broad selection & availability, economic utility, product information, customised product or service, ease of payment, home environment, lack of sociability, and anonymity. (Chiu et al., 2014). Purchase requires a commitment of time, money, as well as travel. Without these, consumers will spend less time considering their purchases, which increases the likelihood that they will purchase unintended items. (Stern, 1962).Also, in e-commerce, or online shopping, the customer uses websites and apps to find out the bare minimum about the good or service they are interested in. The main activities a customer engages in are product web browsing and price comparisons.

User accounts are created by providing personal information after a customer chooses a product or service. A customer completed the transaction by providing their actual purchase preferences, along with their payment information and personal data. (Athapaththu & Kulathunga, 2018).

**H2: There is a positive relationship between perceived usefulness and purchase intention toward online shopping.**

### **Perceived ease of use**

Perceived ease of use is defined as the degree of understanding at which a person thinks using a particular system requires no effort (Davis, 1989). The level of acceptance will increase, there will be more favourable attitudes towards it and a greater desire to adopt the technology in question if it is easy to use. Purchase intent among consumers has a positive relationship with perceived usability (Chin, & Goh, 2017). Users' attitudes towards using technology will be impacted by perceived ease of use (convenience of the system), which will then have an impact on their behaviour. It is thought that a user's intentions and goals affect how they use technology. Davis subsequently asserted that perceived usefulness, as opposed to perceived ease of use, has more impact on a user's decision to use a system.

**H3: There is a positive relationship between perceived ease of use and purchase intention toward online shopping.**

## **Methods**

### **Population**

Users between the ages of 18 and 45 who shop online for various brands of clothing and accessories and live in Tamil Nadu's urban areas made up the study's population.

### **Sample**

In our study, we employed a non-probability practical sampling technique. Probability sampling could not be done because there were no consumer data bases and not enough resources. Kline (2015) suggests that a minimum sample size of 200 should be used when using the structural equation modelling (SEM) method.

### Measurement instrument

The survey tools were modified from earlier studies. A 5-point Likert scale (anchored from strongly disagree to strongly agree) was used to measure the measurement items. Rodrigo et al. (2020) provided three items for the AI shopping experience, and Rout et al. provided three items for the PU shopping experience. (2022). Davis's three perceived ease of use (PEOU) items were modified. (1989). Three things from Ramayah and Ignatius have been modified (2005).

### Procedures for data analysis

SPSS and AMOS version 23.0 were employed for the data analysis.

Structural equation modelling (SEM) was used to examine the connections between the put forth hypotheses.

### Results and Discussion

Data screening is always necessary prior to data analysis in order to review the potential number of errors that could be found. To do this, we ran a few preliminary data screening tests. As data was gathered online, there were no missing or anomalous values among the 380 final cases.

**Table 1: Demographic profile**

Age Group	18-30 years	Gender	Male	62	48.4%
			Female	66	51.6%
	31-40 years	Gender	Male	41	43.6%
			Female	53	56.4%
	41-50	Gender	Male	54	61.4%
			Female	34	38.6%
Above 50	Gender	Male	39	55.7%	
		Female	31	44.3%	

The sample of 335 individuals comprised of 196 males and 184 females (51.6 %, 48.4% respectively). 128 (33.7%) of the consumers were between the age of 18 and 30 years, 94(24.7%) were between 31 and 40 years, 88 (23.2%) were between 41-50, and (70) 18.4% were of ages (Above 50). When inquired about the income; 111 (29.2%) of the e-consumers had income less than 25,000, 131 (34.5%) of the sample consumers had income between 25,001 and 50,000, 56 (17%) had income between 50,001 and 75,000, 82 (21.6%) of the respondents had income above 75,000.

### Assessment of the Measurement Model

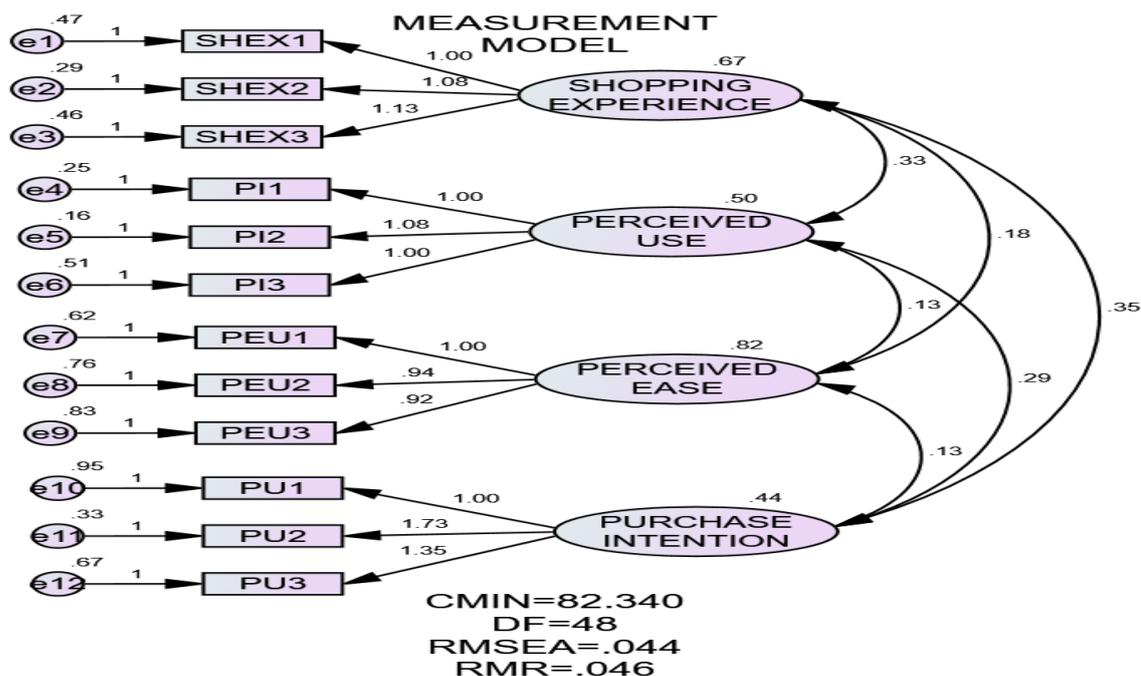
Validity in terms of convergence and discrimination gauges the reliability of the inquiries made of respondents. This evaluation assisted in determining whether the responses would be helpful in achieving the study's goals. The instrument's dependability was measured by indicator reliability and internal consistency. These measurements assisted in determining the degree to which the study could be repeated while still producing comparable results.

**Table 2: Factor Analysis**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.833</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	<b>1941.233</b>
	df	<b>66</b>
	Sig.	.000
<b>Total Variance Explained</b>		<b>73.65</b>

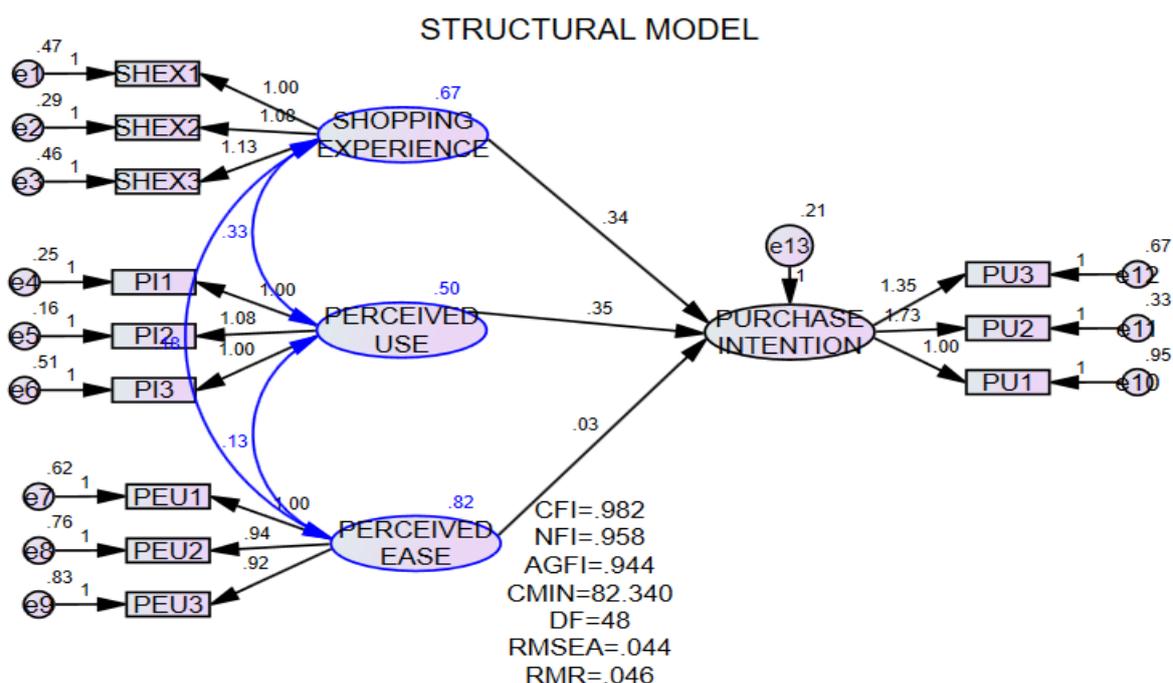
**Table 3 :Rotated Component Matrix**

<b>Rotated Component Matrixa</b>				
	Component			
	1	2	3	4
Shopping Experience 1	<b>.814</b>			
Shopping Experience 2	<b>.830</b>			
Shopping Experience 3	<b>.835</b>			
Perceived use 1				.885
Perceived use 2				.687
Perceived use 3				.717
Perceived ease of use 1			<b>.835</b>	
Perceived ease of use 2			<b>.804</b>	
Perceived ease of use 3			<b>.799</b>	
Purchase Intention 1		.850		
Purchase Intention 2		.848		
Purchase Intention 3		.791		
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

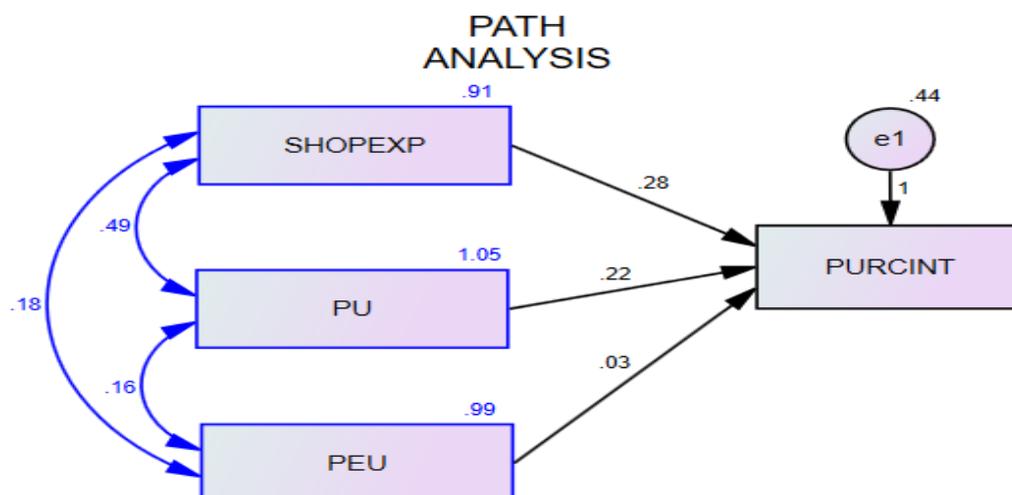


AMOS was used to compute Confirmatory Factor Analysis (CFA) in order to test the measurement models. Factor loadings for every item were evaluated as part of the confirmatory factor analysis. The model's overall goodness of fit was evaluated using the model-fit measures (CMIN/df, GFI, CFI, TLI, SRMR, and RMSEA), and all values were within their corresponding common acceptance levels. (Ullman, 2001; Hu and Bentler, 1998, Bentler, 1990).

### STRUCTURAL MODEL



## HYPOTHESIS TESTING



**Regression Weights: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
PURCINT <--- SHOPEXP	.283	.042	6.769	***	
PURCINT <--- PU	.221	.039	5.723	***	
PURCINT <--- PEU	.034	.035	.977	.329	

The study assessed the impact of shopping experience, perceived use and perceived ease of use on Purchase intention of users of online shopping platforms. The impact of AI shopping experience and Perceived use was positive and significant. For AI shopping experience ( $b=.283, t=.042, p<0.01$ ), for, Perceived use ( $b=.221, t=.039, p<0.01$ ). However, Perceived ease of use was not significant. Model fit indices and hypotheses results are presented in Table.

## RESULTS AND DISCUSSION

Results showed the validity of the S-O-R model in predicting online purchase intentions and the predominance of cognitive website evaluations over affective website reviews. The current study found that utilitarian attributes (product information, financial savings, convenience, and perceived ease of use) are strong predictors of consumers' attitudes, which will in change contribute to their purchase intentions towards online shopping. These findings are supported by empirical research of online buyers of apparel products. The study found that the AI Shopping experience is a highly effective marketing tool that can assist businesses in putting their goods and services on the minds of potential customers. The work of also came to the same conclusion. It shows that businesses that incorporate machine learning into their marketing strategies have a better chance of generating increased consumer interest in their products.

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