

## **The Impact of Community E-Commerce on Customer Purchase Intentions: An Analysis Based On S-O-R Model**

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### **Abstract:**

This study examines the impact of community based digital platform on customer buying decisions through the Stimulus Organism Response (S-O-R) model. The S-O-R model provides a comprehensive frame work of examining whether external stimuli (S) affecting the internal mental state (O), which ultimately affects purchase intentions (R) in various ways. Including surveys and in-depth interviews. Our study research into the ecommerce community shows that positive social interactions and high-quality content significantly increase trust and perceived value. Thus, study found the factors increasing customers purchasing intentions.

**Keywords:** Community commerce, Stimulus, Online consumer behavior, S-O-R Model

### **Introduction**

The digital revolution has transformed every trade, expanding them to rise with social e-commerce. Rapidly growing technology and modified business patterns have restructured the business practices and consumer buying behavior (Li, 2019). Traditional communication has evolved into a new form of virtual social interaction, with customers sharing information on digital platforms, giving rise to social commerce (Hameed et al., 2023). This community-driven commerce influences customers by providing information related to products what they looking for. Customer's insights about products on virtual spaces are a important tool in this fury competitive business to build competitive advantage (Raza et al., 2023). Many researchers (Dwivedi et al., 2017; Kamboj et al., 2018; Manika et al., 2017; Nadeem et al., 2017; Pacauskas et al., 2018; Shareef et al., 2019; Alalwan et al., 2017), social media

and its impact on current business scenario. We aimed to assess Community Commerce's (CC) effect on customer purchase intention. Buxbaum (2016) explained through offline shopping we can develop impulse buying behavior with customer, while online commerce is information dependent. This stands in line with the S-O-R framework, which starts from information flow from online media to purchase intention. Previous studies with S-O-R model studied the impact of online commerce on visual appeal, usability, website trust, and purchase intention (Bilgihan et al., 2014; Flavián et al., 2006). Our study introduces CC as a mediator between visual appeal, usability, website trust, and purchase intention. We have created a new S-O-R model with web content and perceived usability as stimuli, CC as the organism, and purchase intention as the response.

**Conceptual S-O-R Model:** We developed two models to examine the direct impact of variables without a mediator as shown in Figure .1 and impact of variables with a mediator as shown in fig 2 to analyse the mediating effects of CC.

### Review of literature

Digital businesses are examined by factors such as personalization, customer community, and purchase intention (PI), showed positive impact of brand awareness on PI. A study by Costa et al. (2021) indicated the importance of environmental consciousness related to customer PI. User-generated content (UGC) on mobile devices like reviews helps the customer to identify the quality of product without using it. UGC feedback and reviews largely influence purchase decisions (Grewal & Stephen, 2019). Social media reviews and questions also build brand's reputation. Whang et al. (2012) fostered that CC significantly impacts purchase intentions when observed factors matches reviews. Perceived information affects both cognitive and affective states (Mehrabian & Russell, 1974), and those states are influenced by environmental cues from commerce platform (Harris & Goode, 2010; Hopkins et al., 2009). Visual appeal, perceived usability, and website trust are major decision factors of purchase intention (Cai & Xu, 2011; Casaló et al., 2010; Cyr et al., 2006; Flavián et al., 2006). Whang et al. (2012) also declares that CC influences purchase intentions alongside these factors. In our study, visual appeal, usability, and website trust serve as stimuli, with CC as the mediator predicting purchase intentions.

### Research methodology

The study used a descriptive research design method and focused on individuals aged 19-32 having internet access via personal devices. Purposive non-probability sampling was employed due to lack of sampling frame. Primary data collected through online questionnaire via Google Forms, sent to 330 people, 269 received as responses. 59.8% of the sample was female, and 42.4% were aged 30-35.

### Measures

Participants selected their option from a 5-point Likert scale with 1 as strongly disagree and 5 as strongly agree. The Website Trust Scale was adapted from Flavián et al. (2006), and Gao and Bai's (2014) five-item scale measured purchase intention. Pagani and Mirabello's (2011) seven-item scale on social commerce was used, with three constructs selected: Ratings and Reviews, Recommendations and Referrals, and Value Creation. Harris and Goode's (2010) scale with eight items was used to measure usability and visual Appeal

## Results & Discussion

The Cronbach's  $\alpha$  values greater than 0.88 for the constructs used, indicating a accepted level of reliability. Table 1 represents the positive level of correlation among the variables under study

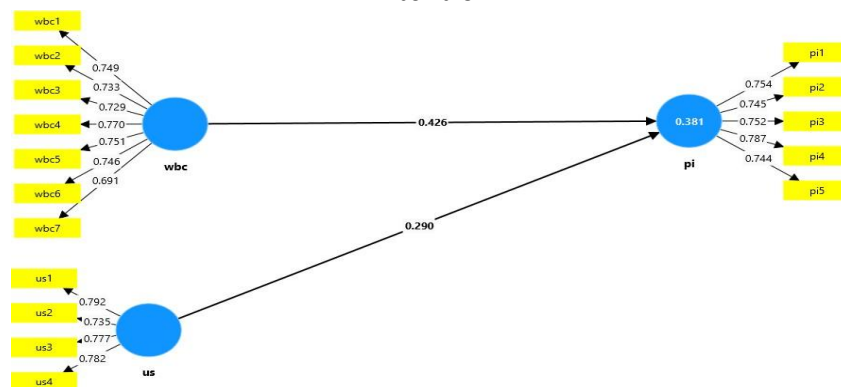
**Table 1** Descriptive statistics, Cronbach, and correlation matrix

	Mean	SD	CC	WBC	US	
CC	3.0142	0.75776	(0.815)			
WBC	3.4041	0.57482	.555**	(0.861)		
US	3.2825	0.76062	.699**	.561**	(0.774)	
PI	3.2402	0.75454	.610**	.365**	.495**	(0.815)

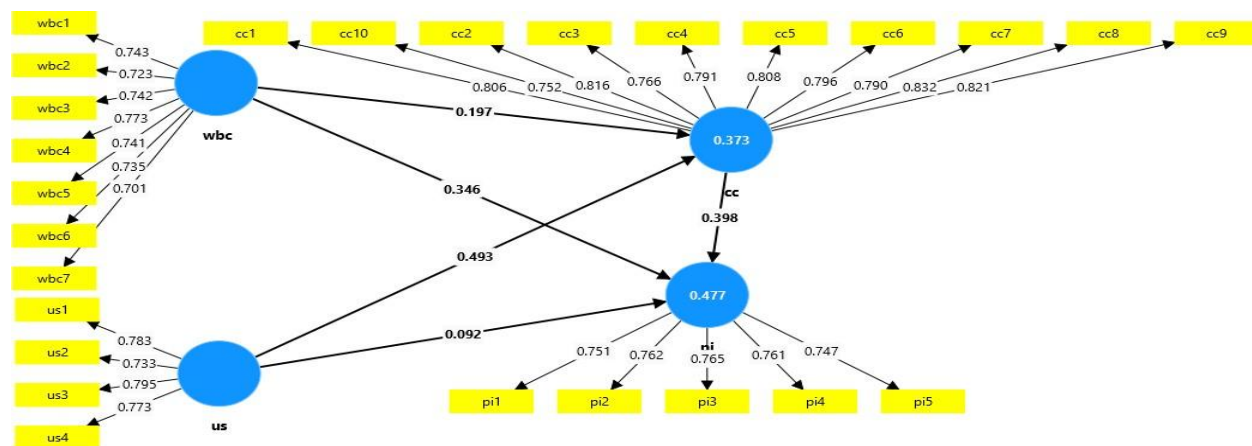
### Structural equation modeling

Multivariate analytical technique tool SEM was performed via the Smart PLS to examine the relationships among the study variables.

**Figure 1. Model one: The direct impact of web content and perceived usability on purchase intention**



**Figure 2** Model two: The mediating effect of Community commerce with Web content, perceived usability and purchase intention.



### Interpretation of the first & second model

The values of the NNF index model 1 and model 2 (0.98); and CFI (0.97) & (0.98) values greater than 0.95 indicate the models drawn has a good fit. Additionally, the SRMR value of 0.057 and 0.059 is acceptable.

### Mediation analyses

To perform mediation analysis will have to check the Significance of both the model, and then have to calculate VAF. The level of significance obtained for both the models are given below.

**Table 2. Direct effects (DE)& indirect effects (IE)**

Direct effects (DE)				
S.no	Items	$\beta$ coefficients	T	Significance
1	Web content to Purchase intention	0.426	4.76	Obtained
2	Usability to Purchase intention	0.29	3.48	Obtained

Indirect effects (IE)					
S.no	Items	DE	Items	IE	Significance
1	Web content to Purchase intention	0.346	Web content-CC-PI	0.197	Obtained
2	Usability to Purchase intention	0.092	Usability-CC-PI	0.493	Obtained

**Table 4 Total effect and VAF calculation**

VAF= (IE/Total effect) \*100, (Total effect (TE)= DE+IE)

Total effect and VAF calculation						
S.no	Items	DE (a)	Variable	IE (b)	TE (a+b)	VAF
1	Web content to Purchase intention	0.346	Web content-CC-PI	0.197	.543	36.27
2	Usability to Purchase intention	0.092	Usability-CC-PI	0.493	.585	84.27

The table 4 VAF calculated values more than 20 indicates partial mediation and the values more than 80 represents strong mediation

### Conclusion

The mediation analysis proved that the usability of web content, mediated by community commerce, significantly impacts purchase decisions. This reveals that information shared on social media influences purchase behavior. The partial mediation found between web content, community commerce, and PI indicates impact of web content on purchase behavior is lesser than the impact of perceived usability. Our study proves the S-O-R framework's validity in understanding community

commerce factors influencing digital purchase decisions. The web space and information provided on web portals enhanced right information flow to customers. Our findings align with Bart et al. (2005) and Lu et al. (2016), by establishing perceived usability's role in predicting behavior decisions, and support the S-O-R model as a mediator in online consumer decision-making process (Ha et al., 2016; Hsu et al., 2017; Lwin et al., 2016; Pelet et al., 2017). In conclusion, our study validates the S-O-R framework as a key predictor of online purchase intentions in emerging markets.

### Limitations and Directions for Future Research

Our study explored relationship between variables online business and individual purchasing behavior, demonstrates that future research could use different constructs for the S-O-R components. The digital platform has improved information flow and trust, but the reliability of digital platform information varies based on ratings, referrals, and recommendations. Future studies can incorporate other variables as mediators to assess their impact on purchase intentions. This is co relational study; conducting longitudinal research provides better understanding about CC influence in developing PI. Replicating same study with different populations may give more insights.

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