



Research Article

The Examining the Consequence of Apparent Significance on User Consumption Intent in Live-Streaming Shopping

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ABSTRACT

This study investigates the influence of functional value, social value, perceived usefulness, and perceived ease of use on Purchase Intention (PI) within the E-Commerce industry in Karachi, Pakistan. Structural equation modelling was employed to analyse the data, and a purposive sampling technique was used to collect a sample of 385 participants, following the estimation method. The findings of this research indicate that functional value, social value, perceived usefulness, and perceived ease of use all substantially impact Purchase Intentions within the E-Commerce sector in Karachi, Pakistan. These results offer valuable insights for both online streamers and brands aiming to enhance their appeal to consumers. By emphasizing the unique qualities of their products, they can attract a wider consumer base and stimulate purchasing behaviours. Establishing a strong emotional bond between brands and consumers is a crucial strategy in this context. Furthermore, based on the results and findings, this study also presents practical and managerial implications, along with suggestions for future research directions.

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INTRODUCTION

The live streaming genre known as 'live stream shopping' mixes social networking with online purchasing. With only a few touches on their cell phones, viewers can make highlighted items their own. Based on research conducted by Hilvert-Bruce et al., (2018), live streaming is an emerging media format that promotes sustained viewer engagement. Live-streaming shopping platforms, which integrate e-commerce functionality, are focused on achieving concrete outcomes, such as generating increased sales from live viewers. Live streaming shopping offers

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customers a unique opportunity to connect with hosts who showcase products through real-time videos, granting them a more precise understanding of product quality as discussed by (Bazi et al., 2020). In contrast to conventional social commerce platforms, where information is conveyed to customers through text and images, real-time video interactions and more comprehensive product details are enabled by live streaming, as highlighted by (Sun & Zhang, 2006).

In this regard, the study focuses on understanding how Pakistani buyers behave when buying products through live streaming, using the Perceived Value Theory as a foundation. In particular, the study aims to uncover the factors that play a role in shaping Purchase Intention (PI) and Customer Engagement (CE) in the realm of Live Streaming Shopping (LSS). In Pakistan, there is a noticeable surge in online high-end product purchases through live shopping services. The current body of literature largely overlooks this emerging trend. Drawing from the Perceived Value Theory, this study aims to construct a comprehensive theoretical framework. The research delves into Pakistani consumers' intentions to make purchases during live streaming shopping, employing the Perceived Value Theory as its foundation. Furthermore, it delves into how CE might serve as a mediator between perceived values and PIs. Live shopping in Pakistan has undergone remarkable growth, establishing itself as a substantial sector within the realm of e-commerce. This study investigates how the perceived value influences consumer PI within the context of LSS in Karachi, Pakistan. Given that the perception of the live streaming environment has the potential to affect CE, it becomes crucial for streamers to establish an emotional bond between customers and the showcased products. This research is specifically concentrated on assessing the influence of perceived value and perceived usefulness on consumer behaviour during live-streaming shopping scenarios. Therefore, the study has the following research question for analysis and findings.

- What is the impact of perceived value on consumer PI in live-streaming shopping in Karachi, Pakistan?

LITERATURE REVIEW

Perceived Value and Purchase Intention

According to Li and Seaton (2015), the inclination of Chinese consumers towards acquiring goods is substantially and positively influenced by their perceptions of values. In the study, Sun et al., (2024) revised the measurement of perceived brand perception. Meanwhile, Kim and Park (2017) identified three distinct dimensions of perceived value including perceived social/emotional worth, utilitarian value, and perceived economic value. Despite the conceptual overlaps between these dimensions and concepts such as emotional value, social value, functional value, and financial value, this article proposes that perceived financial value, functional value, individual value, and social value of products can also influence consumers' Purchase Intentions (PIs). While the link between PV and PIs has been explored sporadically in prior literature, this research seeks to delve deeper into how these various facets of perceived value can impact consumers' intentions to make purchases.

Park and Lin (2020) emphasize the influence of streamers-product fit and product-content fit on streamers' trustworthiness and attractiveness the trustworthiness, hedonistic perspective, and self-product fit of streamers have been found to enhance the propensity to purchase. Through the lens of perceived value theory, it is feasible to discern the perceived value of streamers and consumers' intentions. Therefore, this essay posits that customers' perceived values within the context of live shopping significantly impact their PIs. Streamers play a pivotal role by demonstrating real-time effects of wearing items, employing professional techniques to validate authenticity, displaying quality identification certificates, and highlighting subtle distinctions between similar products. Furthermore, they showcase how items influence personal identity and adorn themselves with various dazzling goods, reinforcing the argument that consumers' perceptions of goods' value via live streaming influence their purchase decisions, encompassing functional, and social aspects (Sun & Zhang, 2006).

Functional Value and Customer Engagement

In the realm of live shopping, the intrinsic worth of a product is built upon three fundamental pillars: its functional value, quality, and originality, as underscored by Wiedmann et al., (2009). Consumers place great importance on functional value, quality, and originality when investing in premium products. Live shopping broadcasts in Pakistan highlight the seamless integration of these products into daily

life, emphasizing practicality, quality, and uniqueness. This aligns with the insights of Wiedmann et al., (2009), who stress the essential role of high quality in premium goods, exceeding customer expectations. Presenters employ specialized equipment to authenticate product authenticity and assure hassle-free returns for quality issues, providing jewellery quality certifications.

The market highly values the perceived rarity and exclusivity of premium products, with uniqueness being a key factor. Functional value in this context relates to the perceived utility of premium items, catering to both utilitarian and hedonistic needs. Usability is a pivotal factor influencing purchase decisions in Pakistan. High quality is a critical attribute in Pakistan's premium product landscape, reinforcing the belief that handcrafted premium brands offer superior quality compared to mainstream alternatives. These associations with reputable brands further enhance the perceived value of purchases among consumers. In summary, the significance of functional value, quality, and originality in high-end goods consumption. Consumers seek practicality, exceptional quality, and distinctiveness in their purchases, with usability playing a decisive role, in line with the research of Weidmann et al., (2007).

H₁: There is a positive and significant impact of functional value on customer engagement.

Social Values and Customer Engagement

Social value in consumer behaviour is exemplified by factors like conspicuousness and prestige (Wiedmann et al., 2007). Goods consumed publicly tend to be more conspicuous, influencing consumer preferences. Purchasing products in public showcases one's social standing and garners attention. Live streaming luxury shopping creates virtual public spaces where consumers sharing the same brand engage. This setting allows customers to perceive the conspicuousness value provided by others' attention. Precious items can emphasize a consumer's personality and social status. Streamers discussing design, principles, and culture during live streaming shopping offer insight into the prestige value. Social value orientation stems from cooperation and competition research, revealing nuanced motivations in social interactions (Belk, 2020). Consumer choices are influenced by what products symbolize to them and their social networks (Wiedmann et al., 2009). Societal pressures and reference groups shape their actions (Shukla, 2012). Class stratification has played a pivotal role in luxury consumption. The pursuit of status and social prestige via consumption significantly influences consumer behaviour (Shukla, 2012). Various cultures, both individualistic and collectivistic, share these social value-driven motives (Shukla, 2012).

H₂: There is a positive and significant impact of social values on customer engagement.

Perceived Usefulness and Customer Engagement

Perceived usefulness, as defined by Ho et al., (2020) and Wilson (2019), refers to an individual's assessment of whether adopting a particular technology will be advantageous for them. In this context, perceived usefulness signifies users' confidence that embracing certain technologies will elevate the quality of their work or activities. Perceived usefulness encapsulates the tangible benefits and long-term advantages of online shopping. It can be influenced by factors such as finding great deals and the cost-effectiveness of online searching. The convenience of online shopping compared to traditional brick-and-mortar stores also plays a role in shaping this perception. Additionally, the ease of comparing virtual stores contributes to its perceived usefulness. E-commerce websites provide valuable services and application software aiding consumer decision-making. However, the practicality may vary, especially for products requiring sensory experiences like tasting or smelling. Perceived usefulness is a quantifiable metric, assessing the effectiveness of technology for individuals. Like evaluating product quality, consumers gauge whether the technology can fulfil their needs (Steenkamp, 2021). Mobile shopping channels exemplify how consumers perceive the value of mobile purchasing, making it an essential aspect of new technology adoption. These perceptions significantly influence perceived value and adoption intentions. In essence, perceived usefulness aligns with the Technology Acceptance Model (TAM) theory's concept of perceived advantages, driven by users' intrinsic desires to fulfil their needs.

H₃: There is a positive and significant impact of perceived usefulness on customer engagement

Perceived Ease of Use and Customer Engagement

The TAM places Perceived Ease of Use (PEOU) at the forefront when it comes to influencing users'

adoption of technology (Davis, 1986). PEOU revolves around users' expectations regarding the physical and mental effort required to embrace a technology, essentially gauging its user-friendliness (Davis, 1989). Selamat and Windasari (2021) emphasize that technology's user-friendliness is a critical factor in its acceptance, while complex systems tend to encounter slower adoption rates. Notably, Islam and Daud (2011) shed light on how the perceived ease of use positively influences consumers' attitudes toward online shopping. Furthermore, Childers et al., (2019) argue that online retailers offering effortless shopping experiences cultivate favourable attitudes among consumers. These studies collectively underscore the pivotal role of perceived ease of use in driving technology adoption and engagement. They stress the importance for technology developers and retailers to prioritize user-friendliness in their product design and promotion efforts, recognizing that a seamless user experience is key to engaging customers effectively.

H₄: There is a positive and significant impact of perceived ease of use on customer engagement.

Customer Engagement and Purchase Intention

In the realm of social commerce, CE takes centre stage, as evident from the research study conducted by Kim and Park (2017). Extensive studies have firmly established a strong link between CE and purchase intent within this domain. Notably, Prentice et al., (2019) underline that customer interactions wield a positive influence on sales in the realm of social commerce, thereby shaping customers' intentions to make purchases. The role of CE in shaping purchase intent is pivotal; engaged customers tend to develop more favourable perceptions of brands and their product offerings. This enhanced perception significantly boosts the likelihood of a purchase, rooted in the trust and connection that engaged customers establish with a brand. Furthermore, Tu et al., (2012) draw attention to the fact that engaged customers are more inclined to provide valuable feedback, thereby assisting brands in improving their products and overall customer experiences. Recognizing the substantial impact of CE on purchase intent, brands are now proactively investing in nurturing strong customer relationships and fostering positive interactions to bolster loyalty and drive sales. Moreover, within the context of the burgeoning trend of live streaming, recent research by Sun and Zhang (2006) explores the intricate relationship between CE and purchase intent, particularly focusing on the aspect of perceived value. Sun and Zhang (2006) conducted surveys on platforms such as Taobao, Mogujie, and Sina Microblog, revealing the significant influence of CE on PIs, especially in the dynamic landscape of live streaming shopping.

H₅: There is a positive and significant impact of customer engagement on purchase intention.

Functional Value on Purchase Intention through Customer Engagement

Western consumers' propensity to acquire goods is notably influenced by their perceptions of value goods, as highlighted by Li and Seaton (2015). These perceptions have evolved in response to the changing landscape of perceived brand perception. Kim and Park (2017) introduced three key categories of perceived luxury values: perceived emotional worth, utilitarian value, and economic value. Given the overlapping definitions of economic, utilitarian, emotional, and social values, it's plausible that consumers also consider the functional, individual, and social value of goods when shaping their PIs. Despite this, the link between perceived value and PIs has received limited attention in literature. Drawing from the perceived value theory, consumers' perceptions of value in live streaming contexts are likely to shape their PIs, with functional value being a key determinant of perceived value in live streaming content. Recent literature suggests that consumers evaluate values not only through live streaming platforms but also by gauging the intrinsic values of these platforms. Sun and Zhang (2006) demonstrate how consumers assess product value during live-streamed shopping by examining factors like price and quality. Streamers play a crucial role by illustrating the real-time impact of luxury items, verifying authenticity, displaying quality certifications, and emphasizing subtle distinctions between similar products. This comprehensive approach aids consumers in recognizing the practical value of items. Consumers' perceptions of the value of goods via live streaming significantly influence their purchasing decisions. This extends to their assessment of functional, individual, and social values, ultimately shaping their PIs.

H₆: Customer engagement mediates the impact between functional value and purchase intention.

Social Values on Purchase Intention through Customer Engagement

According to Kim and Park (2017), comprehensive framework, perceived social values social values

within consumers' perceptions encompasses the full spectrum of financial, functional, individual, and social value associated with goods, collectively steering PIs. While the literature has occasionally veered away from exploring the nexus between perceived value and PIs, a contemporary perspective offered by Park and Lin (2020) throw light on the intricate interplay between streamer-product alignment, streamers' trustworthiness, and their magnetic appeal to consumers. This multifaceted approach transcends hedonic and utilitarian dimensions, amplifying the impact on PIs. Recent scholarship underscores that consumers gauge values not solely within live streaming platforms but also by assessing the underlying social ethos of these platforms. During live-streamed shopping experiences, consumers astutely appraise the financial value of - items, propelled by Sun et al., (2024). Streamers, serving as shrewd guides, facilitate this evaluation by offering real-time demonstrations of items, employing professional techniques for authentication, and providing quality certifications. Additionally, they deftly highlight nuanced distinctions between seemingly identical - goods, facilitating consumers' recognition of practical and social value. Streamers go the extra mile by showcasing the transformative impact of - items on self-identity, elevating visual aesthetics with sophisticated lighting and backgrounds, and consistently adorning a diverse array of opulent items (Li & Seaton, 2015). This influence spans across the domains of financial, functional, individual, and social value, collectively sculpting and stimulating PIs.

H₇: Customer engagement mediates the impact between social values and purchase intention.

Perceived Usefulness on Purchase Intention through Customer Engagement

Davis (1986) introduced a pivotal cognitive element within the TAM called Perceived Usefulness (PU). This core concept suggests that the adoption of Information Technology (IT) hinges on individuals believing that it can enhance their performance (Agag & El-Masry, 2016). The sphere of e-commerce, particularly from the consumer's viewpoint, has become a focal point for PU exploration, focusing on how consumers evaluate the efficacy, productivity, and value provided by online retailers. Recent research by Guritno and Siringoringo (2013) underscores the pivotal role of Perceived Usefulness in shaping consumers' choices to participate in online shopping, profoundly influencing their overall shopping experiences. Nguyen (2020) further underscores the positive impact of Perceived Usefulness on attitudes and intentions toward online purchases. According to Oentario et al., (2017), the significant influence of PU on people's attitudes toward online shopping and the decision-making processes surrounding online purchases. Essentially, when online retailers enhance the perceived usefulness of their platforms, it fosters a more favourable view of e-commerce among customers, leading to a heightened inclination for online purchases. These contemporary findings underscore the ongoing relevance of the interplay between Perceived Usefulness and PIs within the ever-evolving landscape of online commerce.

H₈: Customer engagement mediates the impact between perceived usefulness and purchase intention.

Perceived Ease of Use on Purchase Intention through Customer Engagement

Davis (1989) defines "ease of use" as an individual's perception of a program's smooth operation, with user-friendly applications having higher acceptance rates. Perceived ease of use reflects one's belief in minimal effort required when using a system. The TAM, as outlined by Ahmed et al., (2019), focuses on perceived ease of use and usefulness as core variables affecting user technology acceptance. Perceived ease of use minimally influences online customers' intention to use a system, while perceived usefulness (PU) significantly impacts PI, supported by Porter and Donthu (2006). Zhu et al., (2009) also used TAM, confirming that both PU and Perceived Ease of Use (PEOU) strongly affect online PI. Perceived ease of use is a psychological factor shaping user confidence in system interaction, facilitating decision-making. This is vital for businesses and software developers aiming to create widely accepted, user-friendly applications.

H₉: Customer engagement mediates the impact between perceived ease of use and purchase intention.

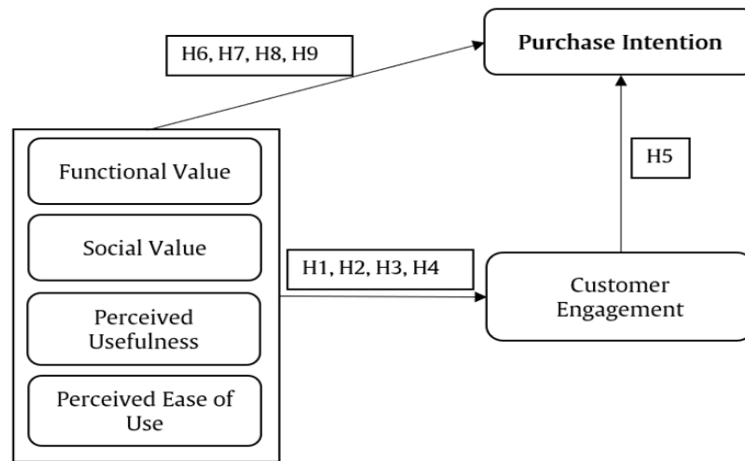


Fig. 1. Conceptual Framework

METHODOLOGY

This research adopts a primary quantitative approach to explore how the perceived value and factors from the TAM impact PI, with CE serving as a mediating factor within the e-commerce sector. The study gathers primary data through a structured questionnaire employing a 5-point Likert scale. Participants are selected from active e-commerce users in Karachi, utilizing a purposive sampling method. The sample size comprises 385 respondents. The chosen statistical method for analysis is Partial Least Squares Structural Equation Modelling (PLS-SEM). PLS-SEM is a robust approach for examining the intricate relationships among variables within the research framework, as recommended by Hair et al., (2011). The questions were derived from previously validated self-administered questionnaires with some modifications concerning the study's context of live-stream shopping in Karachi. The research methodology encompasses various analytical components, including the assessment of reliability using Cronbach's alpha and the execution of principal component analysis. The threshold value set for Cronbach's Alpha is 0.7. Additionally, the study employs Confirmatory Factor Analysis (CFA) to assess construct validity, convergent validity, and discriminant validity, following the criteria outlined by Fornell and Larcker (1981).

This involved assessing the convergent validity by ensuring that Average Variance Extracted (AVE) was greater than 0.5 and for discriminant validity the square of the inter-construct correlation must be less than the AVE of the construct. The analysis of data was, thus, done along a specific method. Firstly, descriptive analysis presented demographic and baseline data of the respondent as the first step of the study. Consistency of constructs was established by performing reliability testing through Cronbach alpha. CFA was used to establish the validity and reliability of the constructs measured in the research model. To examine how these variables are related, the hypothesized relationships among variables were tested using PLS-SEM which is sensitive in modelling complex structures and applicable where sample size is small, according to Hair et al., (2011). Path analysis is also employed to rigorously test hypotheses at a significance level of 5 percent. In the context of the e-commerce industry in Karachi, Pakistan, this study aims to illuminate the dynamic interconnections among perceived value, TAM factors, CE, and PI. The primary objective is to provide valuable insights into consumer behaviour specific to Karachi's e-commerce landscape.

RESULTS & FINDINGS

Pilot Study

Before commencing with the primary data collection for our research, it is imperative to underscore the pivotal role of a pilot study. A pilot study not only forms the cornerstone of rigorous research but also acts as a valuable tool to enhance the overall quality of the main study. It does so by refining the feasibility of gathering a more substantial sample size. In accordance with this best practice, we conducted a meticulous pilot study, incorporating Cronbach's alpha reliability analysis. The results stemming from the pilot study are indeed noteworthy. They reveal that the internal consistency of the variables under examination in our study ranged from 60 percent for CE to an impressive 85 percent for PI. This achievement solidifies a robust foundation upon which the subsequent analysis for the main study will be conducted. In the dynamic research landscape of Pakistan, where research practices must harmonize

with the unique local context, this pilot study assumes paramount importance. It serves as a critical step in ensuring the validity and reliability of our forthcoming main study, aligning our research endeavours with the specific nuances of our research environment.

Data Screening

Before embarking on the data analysis phase, it is crucial to conduct a thorough examination of the main study's data to identify and address any potential anomalies. These anomalies could encompass missing values, as well as univariate and multivariate outliers. It is noteworthy that our current study amassed a dataset comprising a total of 384 records from the accessible population, and notably, no missing values were detected during the meticulous data screening process. In the context of Pakistan, where the quality of data holds paramount importance in ensuring the reliability of research findings, these rigorous data screening procedures align with international best practices.

Demographic Profile of the Respondent

Descriptive analysis was conducted using IBM SPSS Statistics 24, and the summarized results are presented in the table provided. The data collection for this study comprised a total of 385 responses. Among these, 211 respondents (54.8%) were male, while 174 (45.2%) were female. Regarding age distribution, 130 respondents (33.8%) fell in the 15-24 age bracket, 212 (55.1%) were in the 25-34 age range, 35 (9.1%) were aged 35-44, and 8 (2.1%) were 45 years and above. In terms of educational backgrounds, the participants included 121 (31.4%) with a BBA degree, 183 (47.5%) with an MBA, 43 (11.2%) with an MPhil, 23 (6.0%) with a PhD, and 15 (3.9%) falling into the "other" category. Employment status revealed that 49 respondents (12.7%) were unemployed, 158 (41.0%) were government employees, 28 (7.3%) worked in the private sector, and 150 (39.0%) were business owners. Income levels varied among respondents, with 15 (3.9%) reporting household incomes between 25,000 and 50,000, 23 (6.0%) between 50,000 and 100,000, 162 (42.1%) between 100,000 and 150,000, and 31 (8.1%) having incomes exceeding 200,000 and above. These comprehensive demographic details provide a holistic view of the study's participant characteristics.

Measurement model

Table 1

Reliability and Validity of the Constructs

Construct	Items	Factor Loadings	Alpha	CR	AVE
PI	PI1	0.885	0.918	0.939	0.751
	PI2	0.905			
	PI3	0.897			
	PI4	0.896			
	PI5	0.739			
CE	CE1	0.860	0.895	0.898	0.706
	CE2	0.860			
	CE3	0.888			
	CE4	0.840			
	CE5	0.744			
PFV	PFV1	0.785	0.880	0.883	0.676
	PFV2	0.835			
	PFV3	0.807			
	PFV4	0.825			
	PFV5	0.857			
PSV	PSV1	0.852	0.906	0.907	0.728
	PSV2	0.869			
	PSV3	0.851			
	PSV4	0.869			
	PSV5	0.823			
PEOU	PEOU1	0.795	0.805	0.809	0.629
	PEOU3	0.796			
	PEOU4	0.782			
	PEOU5	0.800			
PU	PU1	0.836	0.895	0.899	0.704
	PU2	0.835			
	PU3	0.831			
	PU4	0.844			
	PU5	0.848			

PFV=Perceived Functional Value
 PSV=Perceived Social Value
 PEOU=Perceived Ease of Use
 PU=Perceived Usefulness
 CE=Customer Engagement
 PI=Purchase Intention
 CR= Composite Reliability
 AVE= Average Variance Extracted

The presented table demonstrates that all indicator loadings surpass the recommended threshold of 0.70 with a significance level below 5 percent. Consequently, the study has successfully established construct validity. Furthermore, when assessing construct reliability using both Cronbach’s alpha and composite reliability (CR), both metrics exceeded the suggested benchmarks of 0.70 and 0.80, respectively. Cronbach’s alpha, a key parameter for evaluating internal consistency among variable items, reflects the interconnectedness among items within a variable. This underscores the robust internal consistency observed among the constructs within the structural model. Lastly, the latent constructs exhibit Average Variance Extracted (AVE) coefficients exceeding 0.50, indicating substantial convergence between these constructs and their respective indicators, as supported by contemporary research by Hair et al., (2011). This underscores the attainment of convergent validity in the study, affirming the reliability and coherence of the constructs.

Discriminant validity

Table 2
Fornell-Larcker Criterion Analysis

	CE	PEOU	PFV	PI	PSV	PU
CE	0.840					
PEOU	0.292	0.793				
PFV	0.523	0.713	0.822			
PI	0.574	0.188	0.319	0.867		
PSV	0.629	0.389	0.412	0.322	0.853	
PU	0.524	0.334	0.613	0.316	0.277	0.839

The table above highlights that the values in bold along the diagonal are notably higher than their corresponding correlations with other constructs. This pattern indicates that the constructs exhibit a significant degree of distinction from one another. Consequently, the study has successfully established discriminant validity through the employment of the Fornell-Larcker criterion (FLC) method.

HTMT Discriminant Validity

Table 3
HTMT ratio

	CE	PEOU	PFV	PI	PSV	PU
CE						
PEOU	0.339					
PFV	0.584	0.513				
PI	0.602	0.200	0.324			
PSV	0.697	0.453	0.459	0.330		
PU	0.581	0.389	0.687	0.312	0.301	

The table presented above illustrates that all the Heterotrait-Monotrait (HTMT) ratios between the latent constructs are consistently below the widely accepted threshold of 0.90. This finding signifies a substantial degree of differentiation among the constructs. Consequently, the study has effectively established discriminant validity through the utilization of the HTMT ratio approach.

Structural Model

Hypothesis-Testing using PLS Path Analysis

The table below presents the outcomes of hypothesis testing through path analysis, employing the PLS bootstrapping technique with 5000 subsamples and a two-tailed estimation approach.

Table 4
Path Analysis Direct and Indirect Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P values	Results
PFV-> CE	0.153	0.15	0.072	2.112	0.035	Supported
PSV -> CE	0.509	0.508	0.055	9.171	0.00	Supported
PU -> CE	0.315	0.317	0.072	4.356	0.00	Supported
PEOU-> CE	0.077	0.074	0.072	1.991	0.47	Supported
CE-> PI	0.574	0.575	0.04	14.229	0.00	Supported
PFV -> CE -> PI	0.088	0.087	0.043	2.066	0.939	Supported
PSV -> CE -> PI	0.292	0.292	0.036	8.132	0.00	Supported
PU -> CE -> PI	0.181	0.183	0.045	4.016	0.00	Supported
PEOU -> CE -> PI	0.044	0.042	0.023	1.957	0.032	Supported

The statistics mentioned in the above table show that PFV and PI has positive and significant impact ($\beta = (0.088)$ t-value=2.066 $p < 0.05$) so, H1 is accepted. Additionally, PSV and PI have positive and significant impact ($\beta = (0.292)$ t-value=8.132 $p < 0.05$) so, H2 is accepted. PU and PI has positive and significant impact ($\beta = (0.181)$ t-value=4.016 $p < 0.05$) so, H3 is accepted. PEOU and PI have positive and significant impact ($\beta = (0.044)$ t-value=1.957 $p < 0.05$) so, H4 is accepted. CE Impacts PI and the relationship between them ($\beta = (0.574)$ t-value=14.229 $p < 0.05$), H5 is Accepted. On the other hand, PFV positively and significantly impacted the relationship between the PFV and the CE of customers in live streaming shopping ($\beta = (0.153)$ t-value =2.112 $p < 0.05$) so H6 is accepted. Moreover, PSV positively and significantly impacted the relationship between the PSV and CE of customer in live streaming shopping ($\beta = (0.509)$ t-value =9.171 $p < 0.05$) so H7 is accepted. While PU significantly and positively affects the relationship between PU and CE is ($\beta = (0.315)$ t-value =4.356 $p < 0.05$) so hypothesis H8 is also accepted. While Perceived Ease of Use (PEOU-> CE) positively and significantly impacted the relationship between the (PEOU-> CE) of customers in live streaming shopping ($\beta = (0.077)$ t-value = 1.991 $p < 0.05$) so H9 is accepted hence the intention of the customers for live streaming shopping is positive that is seen through the results of the analysis.

Collinearity Statistics (VIF)

Table 5
Variance Inflation Factor-VIF Inner Model

	VIF
CE->PI	1.000
PEOU-> CE	1.327
PFV -> CE	1.877
PSV -> CE	1.289
PU -> CE	1.617

To ensure the accuracy of our results, it is imperative to examine the independence of our independent variables. We conduct this assessment by calculating the Variance Inflation Factor (VIF), as recommended by Hair et al., (2011). According to their guidelines, a VIF equal to or greater than 5 indicates the presence of severe collinearity, while a VIF ranging between 3 and 5 suggests a moderate likelihood of collinearity. Therefore, to mitigate collinearity concerns, the VIF should ideally be less than 3.

Predictive Relevance

Table 6
Predictive Relevance

	R-Square	R-Square Adjusted	Q-Square	Results R ² and Q ²
CE	0.542	0.538	0.522	Substantial and Large
PI	0.330	0.324	0.152	Substantial and Small

CE= Customer Engagement
PI=Purchase Intention

Assessing the predictability of latent constructs within the structural model, it's been suggested that R² values exceeding 25 percent, 50 percent, and 75 percent correspond to weak, moderate, and strong predictability, respectively. In our case, the R Square value of 0.175 indicates that the three independent variables (PFV, PSV, PU and PEOU) collectively account for 17% of the variance in the dependent variable, PI. Another crucial parameter for evaluating the predictive accuracy of the path model, as implemented in Smart PLS, is Q Square. To compute Q-Square, a blindfolding process is employed. In this context, a Q-Square value greater than 0 signifies meaningful predictive outcomes, with thresholds of 0.50, 0.25, and 0 representing large, medium, and small predictive accuracy of the model. In our research, the Q-Square value obtained is 0.522 for CE and 0.152 for PI which means the PLS Path model has a large and small level of predictive correctness.

Hypotheses Testing

Table 7
Hypothesis Testing Summary

No.	Hypotheses	Result
H ₁	There is a positive and significant impact of perceived functional value on customer engagement.	Supported
H ₂	There is a positive and significant impact of perceived social value on customer engagement.	Supported
H ₃	There is a positive and significant impact of perceived usefulness on customer engagement.	Supported
H ₄	There is a positive and significant impact of perceived ease of use on customer engagement.	Supported
H ₅	There is a positive and significant impact of customer engagement on purchase intention.	Supported
H ₆	Customer engagement mediates impact between functional value and purchase intention.	Supported
H ₇	Customer engagement mediates impact between social value and purchase intention.	Supported
H ₈	Customer engagement mediates impact between perceived usefulness and purchase intention.	Supported
H ₉	Customer engagement mediates impact between perceived ease of use and purchase intention.	Supported

Discussion

Perceived value holds a central position in the realms of consumer behaviour and marketing research. It encapsulates consumers' evaluations of the benefits they derive from a product or service in relation to the costs or sacrifices involved in acquiring it (Zeithaml, 1988). In the unique context of live streaming shopping, perceived value emerges as a pivotal factor, as it directly influences consumers' decision-making processes during these dynamic and real-time shopping experiences. The phenomenon of live streaming shopping has witnessed a remarkable surge in popularity, particularly within e-commerce markets like China. In this format, consumers actively engage with hosts or influencers who showcase products in real-time, fostering an immediate and interactive shopping environment (Zhang et al., 2017). This distinctive context provides an intriguing backdrop for exploring how perceived value shapes PIs, given its inherent dynamism and interactivity. When investigating the impact of perceived value in live streaming shopping, it is imperative to consider its multifaceted dimensions. These encompass utilitarian

value (pertaining to the functional benefits of the product), hedonic or emotional value (linked to the pleasure and enjoyment derived from the experience), and economic value (associated with cost and financial considerations) (Zeithaml, 1988). Recognizing the potential variations in the influence of these dimensions on PIs within the live streaming shopping domain adds depth to our understanding.

Consumer PI serves as a critical precursor to actual buying behaviour. Unravelling the factors that underpin consumers' intent to make purchases within the context of live streaming shopping holds valuable insights, benefiting both marketers and platform operators. By deciphering what motivates consumers to express their intention to buy during live streaming sessions, strategies can be fine-tuned to enhance overall shopping experiences. Existing research has consistently demonstrated the substantial role of perceived value in shaping PI across diverse contexts. For instance, the study by Li and Seaton (2015) underscored the positive relationship between perceived value and consumers' PI in the realm of livestreaming commerce. Consequently, it becomes imperative to explore how perceived value functions within the unique ecosystem of live streaming shopping. This inquiry can offer nuanced insights into the driving forces behind PIs in this dynamic setting. The implications drawn from this study extend beyond theoretical constructs and find practical resonance for marketers and live streaming shopping platforms. Gaining a deep understanding of which facets of perceived value wield the most significant influence empowers marketers to tailor their promotional strategies and product presentations effectively. By aligning with consumers' value perceptions in live streaming shopping, marketers can enhance the attractiveness of their offerings, thereby maximizing PIs and driving actual conversions. This study delves into the intricate relationship between perceived value and consumer PI within the captivating realm of live streaming shopping. Recognizing the nuances of perceived value in this context contributes not only to academic discourse but also equips marketers and platforms with actionable insights to optimize their strategies and engagement with consumers in the dynamic world of live streaming commerce.

CONCLUSION

Live streaming shopping has emerged as a formidable force, and its significance in the Pakistani market is indisputable. This study has meticulously explored the intricate interplay among perceived value, the TAM, and consumer PI within the realm of live shopping in Pakistan. The results show that perceived values and the factors of TAM have significantly positive impact on CE and PI. These findings theoretically contribute to the literature on perceived values and factors of TAM that are being included in the study, LSS and CE. Meanwhile, the results can help streamers and brands to better highlight the uniqueness of goods to attract more consumers and stimulate consumers' purchasing behaviours by establishing a stable emotional connection between brands and consumers. Additionally, this study underscores the critical importance of localizing strategies and content to resonate harmoniously with the distinctive cultural preferences and sensibilities of Pakistani consumers. Tailoring live streaming content, promotional activities, and product assortments to harmonize with local tastes can significantly bolster PI. The establishment of trust through transparent data security practices and educational campaigns becomes paramount, particularly given the nascent nature of live streaming shopping in Pakistan. Moreover, nurturing CE emerges as a linchpin of success in this dynamic domain. Pakistani consumers hold a deep appreciation for interactive elements, live question-and-answer sessions, and real-time customer support. Therefore, businesses should allocate resources to strategies that foster a sense of community among viewers, ultimately amplifying PI. Lastly, the triumph of live shopping in Pakistan hinges upon a profound comprehension of the specific desires and inclinations of Pakistani consumers. By enhancing perceived value, adhering to the tenets of the TAM framework, tailoring strategies to local dynamics, and nurturing CE, businesses and retailers can flourish in this dynamic and promising market. As the momentum behind live streaming shopping continues to surge, those who adapt and innovate are poised to reap the rewards of a retail landscape in Pakistan that is undergoing rapid evolution.

Managerial Implications

Live Streaming Shopping is a rapidly growing global retail channel, and its relevance in Pakistan is significant. This study explores how perceived value influences consumer PI in the context of live streaming shopping. The implications for businesses in Pakistan are substantial. Businesses must prioritize improving the perceived value of their live streaming platforms. This involves offering high-

quality products, competitive prices, interactive features, and a seamless shopping experience to attract and retain customers. CE is key in live streaming shopping. Retailers should invest in strategies like live Q&A sessions, interactive demonstrations, and real-time customer support to foster a sense of community among viewers and boost PI. Understanding Pakistani cultural nuances is crucial. Customizing content, promotions, and products to align with local preferences can significantly impact PI and make the shopping experience more appealing. From a platform view all throughout localization is crucial.

It is crucial for the businesses to create forms of live-streaming that are suitable to Pakistani culture, norms and consumer inclinations. Integration of culturally related topics or partners can bring an added feel to the items which can help to make them more acceptable in the market. In addition, inclusion of regional languages or dialects in the live sessions can even add more to the engagement with different kinds of consumers existing in Pakistan. Continuous investment in the latest streaming technology and mobile platforms is essential. Ensuring a user-friendly experience, especially on mobile devices, can positively influence PI. Building trust is vital in Pakistan. The study involves the enhancement of the technological funds and infrastructure as well. There is significant value in using big data services to gain insights about consumers that include situations where recommendations can be targeted. Presence of artificial intelligence tools for the monitoring the buying behaviour of the consumers during the live streams can prove useful for the identification of potential loopholes in the prevailing marketing techniques.

A province must guarantee stable streaming standard where stream quality is important to avoid negative shopping experience, especially in areas with poor internet connectivity. Retailers should prioritize data security and privacy, with transparent policies and secure payment options to enhance PI. LSS is relatively new in Pakistan. Educating consumers about its benefits through awareness campaigns and clear information can boost adoption. Encouraging customer reviews and showcasing positive feedback can build trust and influence PI, using testimonials and ratings as social proof. Efficient and reliable delivery and fulfilment services are crucial. Streamlining logistics to meet customer expectations regarding delivery times and quality is key. Lastly, this research reinforces the need for establishing long-haul client associations. This means that after the sale is made, processes like follow-ups, customized promotions, and others, make customers become regular consumers. It is suggested that these tangible steps and results of this study should be put into practice to fulfil the untapped prospects of live-stream buying across businesses and streamers for a better foundation in the versus future e-commerce market of Pakistan. This study highlights the importance of perceived value and CE in driving PI in live streaming shopping in Pakistan. Businesses that align their strategies with these findings and cater to the unique needs of Pakistani consumers are likely to thrive in this evolving market.

Limitations of the Study

The preceding section has provided valuable insights while shedding light on certain limitations of the study. This research delves into the impact of Perceived Value on PI, incorporating CE as a mediating factor. However, it's important to acknowledge several limitations. This study was conducted in Pakistan, a developing country. Future research could expand its scope to include developed countries to capture a more diverse perspective. The study employs a cross-sectional, quantitative approach. Future investigations might benefit from adopting a mixed-methods approach, combining quantitative data with qualitative insights to offer a more comprehensive understanding of the phenomenon. The study was conducted in Karachi with a sample size of 385 respondents. Expanding the research to encompass a larger and more geographically diverse sample could enhance the study's generalizability. The theoretical framework lacks the inclusion of a moderator variable. Future research could explore the influence of potential moderators to uncover nuanced relationships. The researcher relied on a closed-ended five-point Likert scale questionnaire administered through personal interaction and an online survey. Future studies might consider employing additional data collection methods to ensure a more precise and comprehensive examination of the relationships between variables.

Competing Interests

The authors declared no competing interests.

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