



Vol 3 Issue 1 (July-Sep 2025)

ISSN (Online): 3006-4740

ISSN (Print): 3006-4732

Unraveling the Drivers and Consequences of Flow Experience in E-Commerce: A Consumer-Centric Perspective

Dr. Ashi Zeeshan

Assistant professor, Department of Business Education, University of Punjab, Lahore

Email: ashi.ier@pu.edu.pk

Dr. Bushra Rehman

Lecturer, Lahore Leads University, Lahore

Email: bushra_rehman65@yahoo.com

Corresponding Author

* Dr. Bushra Rehman

Lecturer, Lahore Leads University, Lahore

Email: bushra_rehman65@yahoo.com

Ruba Asif

PhD (scholar) University of Engineering & Technology, Lahore

Email: rubaasifdsk@gmail.com

Dr. Muhammad Khurram Shezad

PhD, Lahore Business School, The University of Lahore, Lahore

Email: khurram_gi@yahoo.com

Abstract

A website is one of the most effective ways to communicate with consumers in the e-commerce setting. E-commerce is expanding at an explosive rate, and its related websites, known as the e-servicescape, are now heavily involved in fostering customer loyalty and drawing in new clients. However, due to the lack of empirical data that has been gathered and examined, the characteristics of the e-servicescape remain poorly understood. Thus, the goal of this work is to use flow theory to explore a conceptual model of the e-servicescape, flow experience, as well as purchasing intentions. A survey administered to 291 participants in Pakistan successfully operationalized a comprehensive, multi-item (28 items in total), multi-scale (five scales), and multi-dimensional measures of e-servicescape, layout/ functionality aesthetic appeal, financial security, and free shipping. The study demonstrates that the flow is significantly impacted by how customers interpret the e-servicescape aspects. Consequently, we found that the flow is positively influenced by the e-servicescape, which in turn affects customers behavioural intentions. The purpose of this study is to identify the fundamental issue in the interaction between the e-servicescape and customer behaviour, and to provide a new catalyst for defining the concept of the e-servicescape in Pakistani e-commerce sites. Lastly, the findings provide



valuable insights into aspects that practitioners and theorists can focus on to refine their methods.

Keywords: E-servicescape, e-commerce, flow theory, customer behavior

Introduction

During interactions with service providers, customers respond to environments holistically by evaluating the effects of all distinct stimuli presented by the physical environment. According to an earlier study, managers can give customers satisfying shopping experiences by creating a great servicescape, which will encourage their purchase-related intentions and actions (Migdadi & Abdel-Rahman, 2020). These surrounding characteristics were referred to as the "servicescape." As a result, research on service quality management views servicescape as an essential component (Yun & Kim, 2022). Numerous studies have examined the servicescape in online shopping environments, given the rapid rise of e-commerce (Boukabiya & Outtaj, 2021; Tankovic & Benazic, 2018a). Since online and physical stores have different buying habits, e-servicescape has been found to have a significant impact on online consumer behaviors in the literature on e-service quality (Asghar et al., 2023).

According to empirical evidence, e-servicescape—which combines the definitions provided by Bitner, (1992) and Harris et al., (2010) as "The way the online environment is designed and the characteristics of the service staff that define the context cause clients to respond internally, resulting in the exhibition of approach or avoidance behaviors."—is positively associated with purchase intention (Han et al., 2020; H.-C. Wu et al., 2018). Additionally, e-servicescape is vital in providing positive stimuli for electronic retailing (Harris et al., 2010; Huang et al., 2017; Virka et al., 2015). While almost all past studies on the e-servicescape have regarded it as a first-order construct, some have begun to suggest that this description is inadequate and have explored additional potential dimensions or sub-dimensions (Harris et al., 2010; Hopkins et al., 2009).

However, very little research has examined e-servicescapes in this way and explored their potential effects on purchase intention, even though it is widely acknowledged in the literature that a second-order construct can provide a more comprehensive explanation (Bruhn et al., 2008). A few studies have employed a second-order construct to analyse "website attractiveness," a term comparable to the e-servicescape, and have described how it affects purchase intention; however, they have not addressed the e-servicescape as a whole (Wu et al., 2017). Given that this is a relatively new concept in the literature on internet retailing management, this knowledge gap is understandable (Harris et al., 2010). For a better understanding, how consumers react to the commerce site, we developed the following research questions:

RQ1: How do the dimensions of an e-servicescape affect the flow experience of Pakistani consumers?

RQ2: How might the flow be an essential part of figuring out why people buy things online?

Based on the gaps mentioned above, and to address these research questions, we developed a conceptual framework of e-servicescapes, encompassing its dimensions (aesthetic appeal, facility layout, financial security, and free shipping), flow experience, and online purchase intentions. Then we explain the research design, methodology, results, discussion, implications, and future recommendations of the study.

Literature Review

The flow theory

The flow theory was introduced in the 1970s, derived from studies investigating the mental state of those engaged in activities for enjoyment rather than monetary or fame-related benefits (Csikszentmihalyi et al., 1989). Flow experience is demonstrated as the holistic sensation in which people sense while they act with total involvement. The flow theory defines a flow state as one in which "people are so involved in an activity that nothing more seems to matter; the experience is so enjoyable that people will continue to do it even at great cost, for the sheer sake of doing it" (Trevino & Webster, 1992).

Research in numerous disciplines, including management, psychology, human-computer interaction, the arts, and marketing, has employed the flow theory to examine how people become engrossed and inspired by their work (Lee & Wu, 2017; Mustafi et al., 2020; Zhang et al., 2020). Various studies on flow experience have examined the user experience of using the internet in a computer-mediated environment (Koufaris, 2002; Trevino & Webster, 1992). These studies have examined the determinants of flow, including consistency in perceived skills and challenges, interactions, and concentration, as well as the consequences of flow experience, which encompass enhanced learning, perceived behavioural control, positive subjective experiences, and repeat visits (Atombo et al., 2017). Studies in the literature have examined how the flow affects the context of online purchasing (Esteban-Millat et al., 2014; Hoffman et al., 2009). Although the term is widely used, debates on how flow should be structured have been ongoing for some time, and there remains some ambiguity surrounding the subject. It has been noted that this uncertainty poses a significant issue in research examining the impact of flow on online purchasing behaviour. As a result, flow theory delivers a practical conceptual framework for examining how customers become engrossed in online purchasing through websites, considering factors such as i) aesthetic appeal, ii) layout, functionality, iii) financial security, and iv) free shipping.

Purchase Intention and e-servicescapes

Purchase intention is a type of decision that examines the reasons behind a consumer's decision to purchase a specific brand (Asif et al., 2024). According to some authors, consumers rely on their expertise and external sources to obtain information before evaluating their options and making a purchase (Liao et al., 2020; Asif et al., 2024; Moon et al., 2018). Additionally, Asif et al. (2024) define an online buy intention as a circumstance in which a customer is willing and plans to make a purchase online. Hence, it is essential to realize how online shoppers are driven

to buy, seek relevant knowledge based on their own experiences and external circumstances, as well as to evaluate and compare multiple possible items before making a purchase online.

Servicescape is "the built environment (i.e., the man made, physical surroundings as opposed to the natural or social environment)," according to Asghar, Asif, & Akhtar (2023), who argue that it significantly affects both employees and customers. Signs and symbols, space and function, and ambient conditions are all crucial factors. Although there are similarities between the demands for online and physical establishments, notable distinctions also exist because the features of the internet present new challenges at many steps of the transaction.

The elements of the online environment present throughout service (facility) delivery and capable of impacting customer satisfaction are referred to as the e-servicescape or electronic servicescape (Harris et al., 2010). E-service, in its broadest definition, refers to the delivery of services through electronic networks, i.e., the Internet. This concept of e-service encompasses not only the services offered by a standard service organization along with those offered by manufacturers whose profitability is mainly dependent on the level of quality of their offerings. Since the rise of e-commerce websites, prior research has emphasized the significance of the e-servicescape (Huang et al., 2017; Kim et al., 2011; Tankovic & Benazic, 2018b). The Internet enables businesses and clients to communicate in ways that capture the fundamental qualities of services, such as their intangibility and inseparability. Additionally, an e-servicescape can influence consumer behavior by triggering customers' feelings and thoughts about a website. Additionally, customers are more probably experience a state of flow if the e-servicescape successfully fulfills their needs.

Aesthetic appeal

Aesthetic appeal is the first e-servicescape. Lee et al. (2021) stated that "design is more than an artistic interface." Other studies confirmed this, saying that aesthetics "deals with the sensory experience evoked by an artifact, and the extent to which this experience reflects individual goals and attitudes" (Reppa et al., 2021, 2022). Well-designed visuals are not only visually appealing but also easy to use and read (Thömmes et al., 2022). Aesthetic appeal consisted of items, such as visual appeal, design originality, moreover the entertainment value (Harris et al., 2010). In today's internet consumption style, which moved from utilitarian to a blend of utilitarian and hedonistic aims, with entertainment and pleasure becoming increasingly important (Reppa et al., 2021). Therefore, we hypothesize that:

H1: Aesthetic appeal significantly creates flow experience.

Layout and functionality

It refers to the components of a web store's design as well as their placement (Lee et al., 2014). Because they influence online customer selection, usage, and purchasing behaviour, layout and functionality are crucial elements. Layout and functionality encompass items such as interactivity, customisation, usability, and information relevance (Harris et al., 2010). In e-commerce, the website is frequently the only way that customers interact with a business; therefore, to obtain a competitive edge, companies must integrate client demands, desires, and

preferences into layout and design, functionality, as well as the design of the website (Hopkins et al., 2009; Tankovic & Benazic, 2018c). Users may consequently experience an intrinsically pleasurable state of flow, characterized by a distorted perception of time. Therefore, we hypothesized that:

H2: Layout and functionality significantly create flow experience.

Financial security

The third e-servicescape is financial security. Internet security is the primary problem and challenge for effective e-commerce adoption, according to several researchers (Ariff et al., 2013; Kamalul Ariffin et al., 2018; Keating et al., 2009). Researchers, however, largely agree that security is a multifaceted issue that requires consideration of administrative, organisational, and human aspects to be more successful (Tran, 2020). Therefore, considering the factors that motivate consumers' acceptance and use of payment systems is crucial. (Tran & Nguyen, 2022) stated that the most significant determinants of customer willingness to embrace and use are perceived risks and rewards, as well as available payment features. Revenue directly rises as a result of financial security-enhancing activities (Kamalul Ariffin et al., 2018). Financial security can therefore affect the willingness of customers to accept and utilize online payment options. Thus, we hypothesized that:

H3: Financial security significantly creates flow experience.

Free shipping

It has been demonstrated that offering free shipping increases consumers' intentions to make purchases on e-commerce sites. Crossen et al. (2022) suggest that providing free shipping increases the likelihood of customers purchasing a product. The study also found that free shipping deals increase the likelihood of customers making a purchase. A study by Labanauskaitė et al. (2020) also revealed that customers react favourably to free shipping offers as they believe the transaction adds value. Another useful tactic to induce customers to make impulsive purchases is free delivery (Butcher et al., 2017). Thus, we hypothesized that:

H4: Free shipping significantly creates a flow experience.

Flow and online purchase intention

The concept of flow has gained significant importance in recent years. However, there was disagreement among authors in the literature on this idea. On the plus side, the majority of researchers concur on the definition of the flow conceptually, which is defined as an experience that most people have had in various contexts. However, the idea of the flow is intuitively understood by researchers. It has been difficult to translate this intuitive understanding into a logical operational definition. They introduced the concept of flow for online study and provided an example of an online flow that adhered to the original framework. According to online marketers, customers. According to online marketers, customers are more probably to make further buying moreover visit the website again for a similar purchasing experience in the future if they feel like they are in a state of flow. Thus, we hypothesized that:

H5: Flow is significantly creating purchase intention.

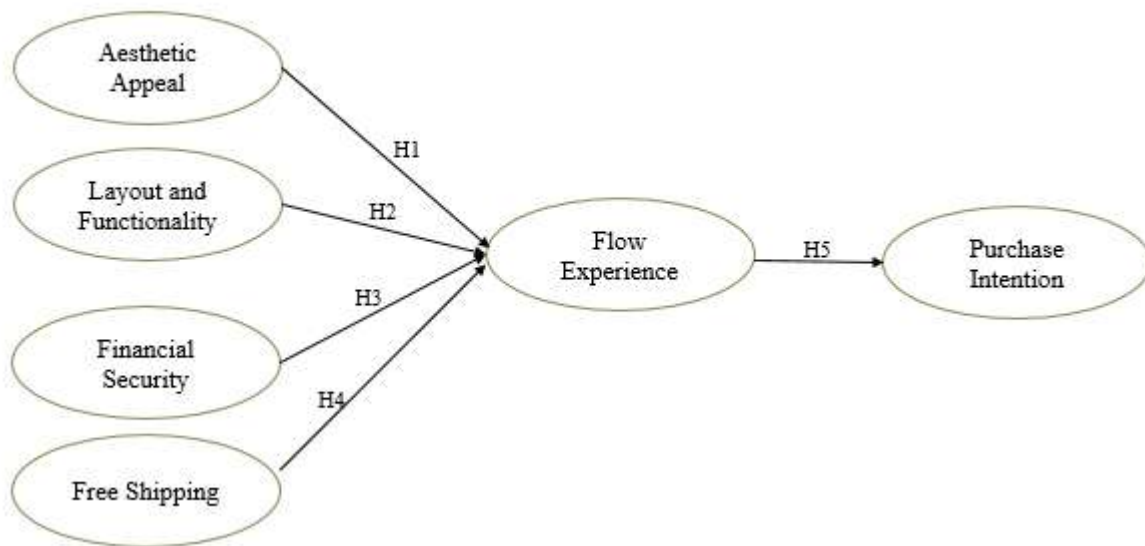


Figure 1: Conceptual Framework

Methodology

Survey design

Based on previous research, we developed a questionnaire and modified its items to suit our context of online purchase intention. There are the following three sections of the questionnaire: (1) description of research, (2) demographics of the respondents, and (3) items of the study. Demographics include: gender, age, income, education, and marital status. All items measured on 5-point likert scale, in which 1 indicates "strongly disagree" and 5 indicates "strongly agree." The 6 items of aesthetic appeal, 9 items of layout and functionality, moreover 4 items of financial security are adapted from the study of Boukabiya & Outtaj (2021) with modifications. The 4-item scale of free shipping is adapted from the study of Crossen et al. (2022). The 3-item scale of flow and the 3-item scale of purchase intention are adapted from the study of (Yin et al., 2023). The structure and sentence of each item are adjusted by the authors of the study to fit in the given context.

Firstly, the questionnaire was written in English and then translated into Urdu. We then conduct a pilot study with 42 respondents. The values of Cronbach's alpha are satisfactory and meet the threshold of 0.70. Thus, the following are the scores for reliability: aesthetic appeal ($\alpha = 0.807$), layout and functionality ($\alpha = 0.856$), financial security ($\alpha = 0.793$), free shipping ($\alpha = 0.762$), flow ($\alpha = 0.744$), and purchase intention ($\alpha = 0.802$).

Sampling and data collection

Data collected for this study from the customers who purchased online through websites using a one-time approach. Data was collected in May 2025 from the major city of Pakistan, Lahore. Before the survey began, respondents were provided with a brief explanation of the research

description, demographics, and confidentiality statement. A total of 299 responses remained after 18 responses were eliminated throughout the screening process. After reviewing responses for errors, incompleteness, and mismatched status, 18 more were eliminated. Ultimately, a sample size of 281 respondents was obtained, which is considered adequate, according to the findings of Hair et al. (2011).

Analysis and results

Demographic information

Table 1: Demographic Profile of Respondents

Characteristics	Total Sample	Percentage
Gender		
Male	203	72.2
Female	78	27.8
Total	281	100.0
Age		
Below 16	3	1.1
16-18	17	6.0
19-21	145	51.6
22-24	91	32.4
Above 24	25	8.9
Total	281	100.0
Income		
Below 25000	132	47.0
25000-50000	85	30.2
50001-75000	26	9.3
75001-100000	10	3.6
Above 100000	8	2.8
Total	7	2.5
	13	4.6
	281	100.0
Marital Status		
Single	253	90.0
Married	23	8.2
others	5	1.8
Total	281	100.0

A total of 281 valid responses were collected considering the aggregate of the sample. 3 respondents were below 16 years old, 17 respondents were between 16-18 years old, 145 were 19-21 years old, 91 participants were 22-24 years old, and 25 respondents were 24 years old or

above. Analysing gender, 78 respondents were female, whereas 203 were male. Table 1 represents the summary of overall sample characteristics separately by each group.

Measurement model assessment

Table 2: Internal Consistency, Reliability and Convergent Validity

Variables	Indicators	Loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite Reliability	AVE
Originality Design	OD1	0.781	0.807	0.810	0.866	0.563
	OD2	0.725				
	OD4	0.735				
	OD5	0.767				
	OD6	0.743				
Layout and Functionality	LF3	0.703	0.856	0.868	0.892	0.581
	LF4	0.779				
	LF5	0.778				
	LF6	0.824				
	LF7	0.724				
Financial Security	LF8	0.759	0.793	0.797	0.865	0.616
	FS1	0.769				
	FS2	0.805				
	FS3	0.773				
	FS4	0.793				
Free Shipping	FSP1	0.715	0.762	0.774	0.848	0.583
	FSP2	0.754				
	FSP3	0.774				
	FSP4	0.808				
Flow Experience	FE1	0.828	0.744	0.760	0.852	0.658
	FE2	0.778				
	FE3	0.826				
Purchase Intentions	PI1	0.836	0.802	0.809	0.883	0.715
	PI2	0.861				
	PI3	0.839				

The systematic evaluation of the reflective measurement model includes assessing the reliability, internal consistency, discriminant validity, and convergent validity of the indicators (Hair et al., 2014).

On the other hand, the methods for evaluating the reliability of any construct include composite reliability (CR), Cronbach's Alpha (α), as well as the average variance extracted (AVE). The values of composite reliability (0.848-0.892) and Cronbach's Alpha (0.744-0.856) are beyond the permissible range of 0.70, as explained by all the factors (Sarstedt et al., 2014). In contrast to the conventional Cronbach's alpha, a new and more useful measure (ρ_A) was also employed to assess internal consistency reliability (Henseler et al., 2014). To ensure convergent validity and reliability, the values of variance extracted (AVE) and ρ_A should be greater than 0.5 and 0.7 respectively (Hair Jr et al., 2022). We find support for all AVE and ρ_A values falling under the suggested threshold level. Regarding indicator loadings, all are within the advised ranges.

Common Method Bias

The results of the current study might be affected by common method bias as it was a cross-sectional study, and data were collected by questionnaire (Podsakoff et al., 2003). In the current study, we must employ several common method bias techniques, such as single-factor confirmatory factor analysis, Harman's one-factor analysis, and common latent factor analysis. Results of Harman's factor show 40.95% for a single factor, and in principal component analysis, it produces 60.087%; these results are according to the given criteria, as 40.95% is less than 50 and 60.087 is above 50, so in this data, there is no issue of common method bias.

Discriminant Validity

Table 3: Cross Loadings

	FE	FS	FSP	LF	OD	PI
FE1	0.814	0.552	0.630	0.538	0.499	0.618
FE2	0.788	0.323	0.421	0.449	0.276	0.522
FE3	0.834	0.389	0.447	0.452	0.315	0.604
FS1	0.396	0.769	0.575	0.656	0.512	0.405
FS2	0.444	0.804	0.595	0.633	0.493	0.448
FS3	0.366	0.773	0.516	0.644	0.490	0.462
FS4	0.450	0.794	0.566	0.598	0.516	0.561
FSP1	0.437	0.609	0.714	0.623	0.484	0.448
FSP2	0.438	0.526	0.754	0.574	0.457	0.494
FSP3	0.433	0.528	0.774	0.496	0.391	0.451
FSP4	0.576	0.541	0.808	0.571	0.416	0.582
LF3	0.343	0.635	0.569	0.702	0.416	0.461
LF4	0.416	0.666	0.573	0.779	0.526	0.465
LF5	0.511	0.561	0.555	0.779	0.568	0.572
LF6	0.544	0.623	0.595	0.824	0.517	0.579

LF7	0.374	0.591	0.517	0.724	0.426	0.367
LF8	0.478	0.628	0.581	0.759	0.473	0.450
OD1	0.323	0.478	0.405	0.508	0.781	0.365
OD2	0.359	0.476	0.417	0.467	0.725	0.382
OD4	0.273	0.564	0.507	0.534	0.734	0.418
OD5	0.353	0.470	0.425	0.488	0.768	0.369
OD6	0.391	0.438	0.399	0.441	0.744	0.404
PI1	0.690	0.466	0.497	0.486	0.397	0.837
PI2	0.553	0.515	0.581	0.545	0.445	0.860
PI3	0.562	0.550	0.591	0.606	0.474	0.838

According to Hair et al. (2014), firstly, we examine the discriminant validity of the indicators to assess cross-loadings of the indicators. In particular, outer loadings of an indicator should be larger than its overall loadings on the other variables in the model (i.e., cross-loadings). The discriminant validity issue arises if a construct's indicators exhibit cross-loadings that are higher than their primary loadings. Hair, Ringle, and Sarstedt (2011) contend that the cross-loading criteria are relatively lenient for determining discriminant validity. Cross-loadings of the construct indicators are shown in Table 3.

Fornell-Larcker Criterion

Table 4: Values of Fornell-Larcker Criterion

	FE	FS	FSP	LF	OD	PI
FE	0.812					
FS	0.530	0.785				
FSP	0.625	0.718	0.763			
LF	0.595	0.711	0.740	0.762		
OD	0.459	0.640	0.569	0.645	0.750	
PI	0.720	0.600	0.653	0.641	0.516	0.845

The Fornell-Larcker criteria (also known as the F-L criterion). This approach compares the correlations of latent variables with the values of AVE. Hair et al. (2014) state that "the square root of each construct's AVE should be greater than its highest correlation with any other construct." This approach is justified by the idea that a construct should vary more from its indicators than from those of other constructs. The F-L criteria values are shown in Table 4.

Structural Model Assessment

Table 5: Significance of Path Coefficients

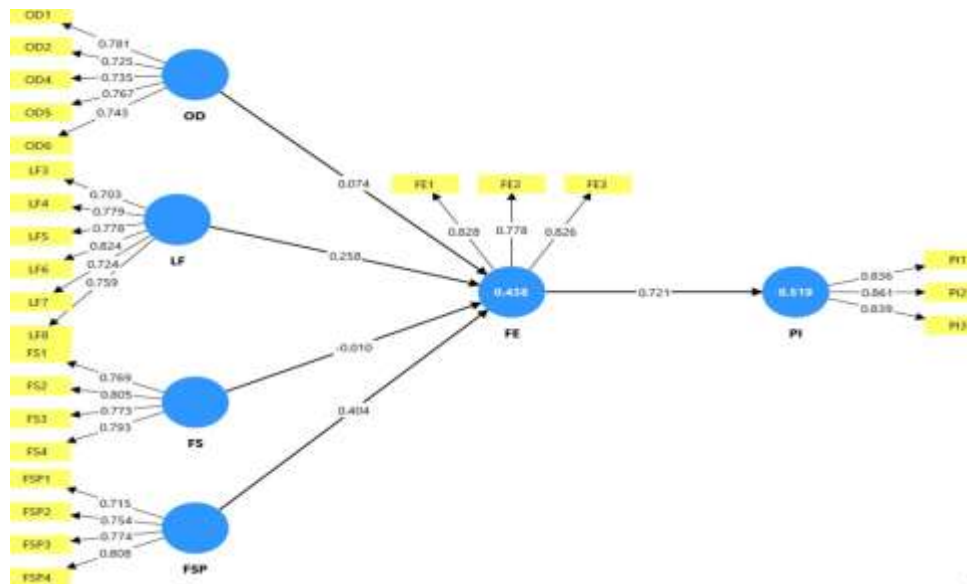
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	VIF	T statistics (O/STDEV)	P values
OD	- 0.074	0.078	0.076	1.651	0.970	0.332

>FE							
LF	->	0.258	0.257	0.097	2.774	2.662	0.008
FE							
FS	->	-0.010	-0.008	0.094	4.000	0.105	0.916
FE							
FSP-		0.404	0.406	0.105	3.399	3.862	0.000
>FE							
FE	->	0.721	0.722	0.035	1.875	20.410	0.000
PI							
		R-square		R-square adjusted			
FE		0.438		0.430			
PI		0.519		0.518			

Note: a=Significant at $p \leq .01$, b=Significant at $p \leq .05$

This research comprises 5000 subsamples and follows the bootstrapping technique suggested by Hair et al. (2014). Given that the values of variance inflation factor are less than 3 (Hair Jr et al., 2022), the model does not have an issue with multicollinearity. This study focuses on evaluating the hypotheses relating to the originality design, layout, functionality, financial security, free shipping flow experience, and purchase intention. To do this, we put the conceptual model created in this research to test the relationship between them (see Figure 1). Fig. 2 and Table 6 provide illustrations of the findings. We examined the values of the coefficient of determination (R^2) and adjusted R^2 (Henseler et al., 2009; Hair et al., 2018). The path coefficients ranged from -0.010 to 0.721. Additionally, including the four independent variables resulted in an adj R^2 of 0.430, .518, and R^2 values of 0.438, .519. The significance level of the path coefficients is examined in this study using both p-values and t-values. The significance levels of the path coefficients are displayed in Table 5.

In the first hypothesis, the findings indicate that the originality design has a non-significant positive impact on flow experience ($\beta = .074$, $t = 0.970$, $p = 0.332$). H1 is rejected as the data do not support it. According to the findings of the second hypothesis, layout and functionality have a significantly positive effect on flow experience ($\beta = .258$, $t = 2.662$, $p = 0.008$). The result supports H2; therefore, H2 is accepted. Furthermore, according to the third hypothesis, there is a noteworthy positive correlation between financial security and flow experience ($\beta = 0.010$, $t = 0.105$, $p = 0.916$); since the data did not support the hypothesis, it is rejected. The findings support the fourth hypothesis, which states that free shipping significantly increases flow experience ($\beta = 0.404$, $t = 3.862$, $p < 0.05$); Since the data fully supported H4, it is accepted. The findings support the fifth hypothesis, which states that flow experience significantly increases the likelihood of purchase intention ($\beta = 0.721$, $t = 20.410$, $p < 0.05$). Since the data fully supported H5, it is accepted.



5. Discussion and implications

This study investigated how flow is developed by e-servicescapes (aesthetic layout and functionality, financial security, and free shipping) and examined the effect of consumer behavior in the context of Pakistan. To achieve these objectives, we conducted a survey based on existing literature on online purchase intention. Our study found that the flow is shaped by different e-servicescapes, resulting in a single behaviour (online purchase intention). We discovered that people of Pakistan are concerned about the e-servicescapes of the websites. Additionally, we found that people are more inclined towards the positive behaviour of purchase intention if websites provide strong and well-maintained e-servicescapes. All the results have both theoretical and practical implications, contributing to the understanding of flow and online purchase intention developed through e-servicescapes.

Theoretical Implications

The association between flow (H1) and the first e-servicescape component, aesthetic appeal, is supported by the conceptual model (ESFI). This indicates that customers' perception of changing focus and full participation on web pages can be influenced by aesthetic appeal when the webpage appeals to them. For instance, if consumers find an e-commerce site's layout and graphics appealing and engaging, these factors may positively influence their perception of the intangible aspects of the site's offerings. Aesthetic components enhance emotional and cognitive responses, which elevate engagement levels, particularly during online shopping experiences. Our findings for the aesthetic appeal are aligned with the study (Lee et al., 2021)

In a similar vein, the flow experience in all three e-servicescape dimensions is most strongly associated with the finding of a substantial association (H2) between the flow and the second dimension of e-servicescape, which is related to layout and functionality. It is reasonable to say that the layout & functionality are the most important aspects of the e-servicescape, although these distinctions should be interpreted with care. The findings align with the study by Boukabiya & Outtaj (2021). This implies that user-friendly interfaces, logical navigation, quick

load times, and accessible content contribute significantly to users achieving a state of flow. Consistent with numerous empirical and theoretical research in marketing and environmental psychology, this paper highlights how an individual's affective perceptions are strongly correlated with how they perceive a website's layout and functionality, particularly when they are engaging in hedonic consumption and spend more time on it (Boukabiya & Outtaj, 2021; de Nisco & Warnaby, 2013; Teng et al., 2018).

The model's (H3) main focus is on the hypothetical relationship between website flow and online financial security evaluations. In this context, it is inferred that analyzing online service metrics with customers' interpretations and perceptions of websites and payment security systems is crucial. Structural equation modeling supports and validates the proposed relationship (H3) between evaluations of online financial security and flow in a Pakistani e-commerce site. This means users are more likely to enter a flow state when they feel confident that their financial information (e.g., credit card details, personal data) is secure. This result supports the argument made by several researchers that customers are more worried about security problems in online service environments as compared to offline ones (Tankovic & Benazic, 2018a; Tran, 2020).

Offering free shipping significantly contributes to a positive flow experience. Users perceive free shipping as a value-added benefit, reducing their financial burden, which enhances their overall satisfaction and emotional engagement. It eliminates last-minute surprises during checkout, which could otherwise disrupt the flow state. Incentives like free shipping serve as motivators, encouraging users to stay engaged and continue through the purchase journey. Our findings are aligned with (Crossen et al., 2022).

An essential factor to take into account when purchasing online is flow. We verify that the flow has a direct impact on purchase intention. This result confirms other studies on the online experience, which found that customers are more likely to make a purchase when they are fully engaged. Our findings are aligned with (Atombo et al., 2017). Consequently, this study develops a new perception that highlights the significance of flow experience on customer behavior, grounded in flow theory.

Practical Implications

Managers, marketers, and developers can learn from this study that all aspects of the e-servicescape should be significantly highlighted, as it demonstrates how both functional and experiential features influence consumer behaviour. Put differently, this study urges sellers to focus on the e-servicescape components and components that affect successful websites. Such an influence, in the seller's opinion, results in insensitive marketing choices, either to recover their profits or to keep their customers by cutting their pricing or profit margin to the point of lowering their investments in technology.

Limitations and Future Directions

However, if a smart marketing plan were created to draw potential customers to shopping websites by offering a more comprehensive buying experience on the bases of e-servicescape

elements that attract online buyers, this effect might be reduced. The limited scope of the research's service factors limits the study's findings and contributions. Examining additional variables that are part of the same network as flows, including perceived value and satisfaction, whose relevance to behavioural intention is often disputed in marketing studies, is another line of inquiry. We can also suggest adding more factors to the model that are unrelated to the virtual world, such as the product's quality, cost, and the location of the service provider.

Conclusion

Our study examines the impact of key online shopping factors on consumer flow and subsequent purchase intentions. E-servicescapes (layout and functionality, aesthetic appeal, free shipping and financial security) play an essential role in boosting the user's flow experience. Flow, a state of deep engagement and immersion, significantly boosts consumers' likelihood of completing purchases. The model confirms that a seamless and visually attractive interface is crucial for retaining consumer attention. Security in financial transactions builds trust, fostering uninterrupted engagement and reduced cognitive anxiety. Free shipping acts as a strong motivator, enhancing users' satisfaction and emotional commitment. The model encourages a consumer-centric design approach that integrates emotional and functional website elements. Moreover, enhancing flow through targeted design elements directly contributes to increased online purchase intentions.

Reference

- Ariff, M., Yan, N., Zakuan, N., ... A. B.-I. C. S., & 2013, U. (2013). Web-based factors affecting online purchasing behaviour. *Iopscience.Iop.Org*. <https://doi.org/10.1088/1757-899X/46/1/012038/META>
- Asghar, A., Asif, R., & Akhtar, N. (2023). Servicescapes and social servicescapes: impact on perceived usefulness, choice satisfaction and behavior at fast-food restaurants. *Journal of Hospitality and Tourism Insights*. <https://doi.org/10.1108/JHTI-03-2023-0125>
- Asghar, A., Asif, R., Akhtar, N., & Islam, T. (2023). Do green servicescape and perceived quality determine consumerism and its consequences? *Journal of Hospitality and Tourism Insights*. <https://doi.org/10.1108/JHTI-07-2023-0490>
- Asif, R., Asghar, A., Akhtar, N., Sharma, A., & Islam, T. (2024). Extending factors of brand attachment in developing consumers' purchase intentions: a multi-wave consumer perspective. *SpringerR Asif, A Asghar, N Akhtar, A Sharma, T IslamCurrent Psychology, 2024•Springer, 43(30), 24941–24959*. <https://doi.org/10.1007/S12144-024-06196-X>
- Atombo, C., Wu, C., Zhang, H., & Wemegah, T. D. (2017). Perceived enjoyment, concentration, intention, and speed violation behavior: Using flow theory and theory of planned behavior. *Taylor & FrancisC Atombo, C Wu, H Zhang, TD WemegahTraffic Injury Prevention, 2017•Taylor & Francis, 18(7), 694–702*. <https://doi.org/10.1080/15389588.2017.1307969>
- Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. In *Source: Journal of Marketing* (Vol. 56, Issue 2).
- Boukabiya, A., & Outtaj, B. (2021). The Impact of E-Servicescape on the Flow and Purchase Intention of Online Consumers: A Quantitative Analysis of B2C E-Commerce Stores in Morocco. *Morocco. International Journal of Accounting, 2(4), 200–219*. <https://doi.org/10.5281/zenodo.5115131>
- Bruhn, M., Georgi, D., Research, K. H.-J. of B., & 2008, U. (2008). Customer equity management as formative second-order construct. *ElsevierM Bruhn, D Georgi, K HadwichJournal of Business Research, 2008•Elsevier, 61(12), 1291–1301*. <https://www.sciencedirect.com/science/article/pii/S0148296308000180>
- Butcher, L., Phau, I., Planning, A. S.-M. I. &, & 2017, undefined. (2017). Uniqueness and status consumption in Generation Y consumers: Does moderation exist? *Emerald.ComL Butcher, I Phau, AS ShimulMarketing Intelligence & Planning, 2017•emerald.Com, 35(5), 673–687*. <https://doi.org/10.1108/MIP-12-2016-0216++>
- Crossen, S., Hira, M., Fonua, S., & Forterie, X. (2022). Impact of Consumer Trust, Campaign Effectiveness, and Free Shipping on Consumer Purchase Decision. *Journal of Positive School Psychology, 6(4), 12–23*.
- Csikszentmihalyi, M., social, J. L.-J. of personality and, & 1989, undefined. (1989). Optimal experience in work and leisure. *Psycnet.Apa.OrgM Csikszentmihalyi, J LeFevreJournal of Personality and Social Psychology, 1989•psycnet.Apa.Org, 56(5), 815–822*. <https://psycnet.apa.org/journals/psp/56/5/815.html?uid=1989-27920-001>
- de Nisco, A., & Warnaby, G. (2013). Shopping in downtown: The effect of urban environment on service quality perception and behavioural intentions. *International Journal of Retail & Distribution Management, 41(9), 654–670*.

<https://doi.org/10.1108/IJRDM-05-2013-0106>

Esteban-Millat, I., Martínez-López, F., ... D. L.-H. of strategic e, & 2014, undefined. (2014). The concept of flow in online consumer behavior. *SpringerI Esteban-Millat, FJ Martínez-López, D Luna, I Rodríguez-ArduraHandbook of Strategic e-Business Management, 2014•Springer*, 371–402. https://doi.org/10.1007/978-3-642-39747-9_17

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>

Han, H., Moon, H., & Hyun, S. S. (2020). Uncovering the determinants of pro-environmental consumption for green hotels and green restaurants: A mixed-method approach. *International Journal of Contemporary Hospitality Management*, 32(4), 1581–1603. <https://doi.org/10.1108/IJCHM-04-2019-0354>

Harris, L., marketing, M. G.-J. of services, & 2010, undefined. (2010). Online servicescapes, trust, and purchase intentions. *Emerald.ComLC Harris, MMH GoodeJournal of Services Marketing, 2010•emerald.Com*, 24(3), 230–243. <https://doi.org/10.1108/08876041011040631+>

Hoffman, D., marketing, T. N.-J. of interactive, & 2009, undefined. (2009). Flow online: lessons learned and future prospects. *Journals.Sagepub.ComDL Hoffman, TP NovakJournal of Interactive Marketing, 2009•journals.Sagepub.Com*, 23(1), 23–34. <https://doi.org/10.1016/J.INTMAR.2008.10.003>

Hopkins, C. D., Grove, S. J., Raymond, M. A., & Laforge, M. C. (2009). Designing the e-servicescape: Implications for online retailers. *Taylor & Francis*, 8(1–2), 23–43. <https://doi.org/10.1080/15332860903182487>

Huang, D., Li, Z., Mou, J., Tourism, X. L.-I. T. &, & 2017, undefined. (2017). Effects of flow on young Chinese consumers' purchase intention: a study of e-servicescape in hotel booking context. *SpringerD Huang, Z Li, J Mou, X LiuInformation Technology & Tourism, 2017•Springer*, 17(2), 203–228. <https://doi.org/10.1007/S40558-016-0073-0+>

Kamalul Ariffin, S., Mohan, T., & Goh, Y. N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Emerald.Com*, 12(3), 309–327. <https://doi.org/10.1108/JRIM-11-2017-0100/FULL/HTML>

Keating, B. W., Quazi, A. M., & Kriz, A. (2009). Financial risk and its impact on new purchasing behavior in the online retail setting. *Springer*, 19(4), 237–250. <https://doi.org/10.1007/S12525-009-0021-3>

Kim, J., Kim, M., Service, J. K.-I. J. of, & 2011, undefined. (2011). The impact of e-retail environment characteristics on e-satisfaction and purchase intent. *Igi-Global.ComJH Kim, M Kim, J KandampullyInternational Journal of Service Science, Management, Engineering, and, 2011•igi-Global.Com*, 2(3), 1–19. [https://doi.org/10.4018/JSSMET.2011070101++AND++TECHNOLOGY,++2\(3\),++1](https://doi.org/10.4018/JSSMET.2011070101++AND++TECHNOLOGY,++2(3),++1)

Labanauskaitė, D., Fiore, M., Perspectives, R. S.-T. M., & 2020, undefined. (2020). Use of E-marketing tools as communication management in the tourism industry. *Elsevier*, 34, 100652. <https://doi.org/10.1016/J.TMP.2020.100652++>

Lee, A., Kranjec, A., Bies, A. J., Isik, A. I., & Vessel, E. A. (2021). From visual perception to aesthetic appeal: Brain responses to aesthetically appealing natural landscape movies. *Frontiersin.Org*, 15. <https://doi.org/10.3389/FNHUM.2021.676032/FULL>

Lee, C. H., & Wu, J. J. (2017). Consumer online flow experience The relationship between utilitarian and hedonic value, satisfaction and unplanned purchase. *Industrial Management and Data Systems*, 117(10), 2452–2467. <https://doi.org/10.1108/IMDS-11-2016-0500>

Lee, S., building, J. K.-J. of A. architecture and, & 2014, undefined. (2014). Effects of servicescape on perceived service quality, satisfaction and behavioral outcomes in public service facilities. *Taylor & Francis*, 13(1), 125–131. <https://doi.org/10.3130/JAABE.13.125>

Liao, X., Shen, S. V., & Shi, X. (2020). The effects of behavioral intention on the choice to purchase energy-saving appliances in China: the role of environmental attitude, concern, and perceived psychological benefits in shaping intention. *Energy Efficiency*, 13(1), 33–49. <https://doi.org/10.1007/s12053-019-09828-5>

M Koufaris. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Pubsonline.Informs.OrgM KoufarisInformation Systems Research, 2002•pubsonline.Informs.Org*, 13(2), 205–223. <https://doi.org/10.1287/ISRE.13.2.205.83>

Migdadi, Y. K. A. A., & Abdel-Rahman, E. H. A. (2020). The impact of grocery retail superstores location on the customer's perceived quality of servicescape in Jordan. *Quality Management Journal*, 27(2), 120–132. <https://doi.org/10.1080/10686967.2020.1722045>

Moon, M. A., Javaid, B., Kiran, M., Awan, H. M., & Farooq, A. (2018). Consumer perceptions of counterfeit clothing and apparel products attributes. *Marketing Intelligence and Planning*, 36(7), 794–808. <https://doi.org/10.1108/MIP-11-2017-0272>

Mustafi, M., Marketing, M. H.-J. of C., & 2020, undefined. (2020). The role of online advertising in influencing purchase intention for smartphones: Mediating effects of flow experience and advertising value. *Emerald.Com*, 3(3), 385–410. <https://doi.org/10.1108/JCMARS-05-2020-0024/FULL/HTML>

Podsakoff, Philip M.,MacKenzie, Scott B.,Lee, Jeong-Yeon,Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.

Reppa, I., Attention, S. M.-, Perception, undefined, Psychophysics, &, & 2022, undefined. (2022). Aesthetic appeal influences visual search performance. *Springer*, 84(8), 2483–2506. <https://doi.org/10.3758/S13414-022-02567-3>

Reppa, I., McDougall, S., Sonderegger, A., & Schmidt, W. C. (2021). Mood moderates the effect of aesthetic appeal on performance. *Taylor & Francis*, 35(1), 15–29. <https://doi.org/10.1080/02699931.2020.1800446>

Tankovic, A. C., & Benazic, D. (2018a). The perception of e-servicescape and its influence on perceived e-shopping value and customer loyalty. *Emerald.Com*, 42(7), 1124–1145. <https://doi.org/10.1108/OIR-12-2016-0354/FULL/HTML>

- Tankovic, A. C., & Benazic, D. (2018b). The perception of e-servicescape and its influence on perceived e-shopping value and customer loyalty. *Online Information Review*, 42(7), 1124–1145. <https://doi.org/10.1108/OIR-12-2016-0354>
- Tankovic, A. C., & Benazic, D. (2018c). The perception of e-servicescape and its influence on perceived e-shopping value and customer loyalty. *Online Information Review*, 42(7), 1124–1145. <https://doi.org/10.1108/OIR-12-2016-0354/FULL/HTML>
- Teng, H. J., Ni, J. J., & Chen, H. H. (2018). The Relationship between e-Servicescape and Purchase Intention among Heavy and Light Internet Users. *Emerald.Com*, 28(2), 333–350. <https://doi.org/10.1108/INTR-10-2016-0303/FULL/HTML>
- Thömmes, K., Aesthetics, R. H., Creativity, U., Arts, and the, & 2022, U. (2022). Why people press “like”: A new measure for aesthetic appeal derived from Instagram data. *Psychology of Aesthetics, Creativity, and the Arts*, 16(3), 437–454. <https://psycnet.apa.org/journals/aca/16/3/437/>
- Tran, V. D. (2020). The relationship among product risk, perceived satisfaction and purchase intentions for online shopping. *The Journal of Asian Finance, Economics and Business*, 7(6), 221–231. <https://doi.org/10.13106/jafeb.2020.vol7.no6.221>
- Tran, V. D., & Nguyen, T. D. (2022). The impact of security, individuality, reputation, and consumer attitudes on purchase intention of online shopping: The evidence in Vietnam. *Taylor & Francis*, 9(1). <https://doi.org/10.1080/23311908.2022.2035530>
- Trevino, L. K., & Webster, J. (1992). Flow in computer-mediated communication: Electronic mail and voice mail evaluation and impacts. *Journals.Sagepub.ComLK Trevino, J WebsterCommunication Research, 1992•journals.Sagepub.Com*, 19(5), 539–573. <https://doi.org/10.1177/009365092019005001>
- Virka, G., Jansz, A., Mylona, A., Mavrogianni, A., Jenny, S., & Michael, D. (2015). Microclimatic effects of green and cool roofs in London and their impacts on energy use for a typical office building. *Energy and Buildings*, 88, 214–228.
- Wu, H.-C., Cheng, C.-C., Chen, Y.-C., & Hong, W. (2018). Towards green experiential loyalty : driving from experiential quality , green relationship quality , environmental friendliness , green support. *International Journal of Contemporary Hospitality Management*, 30(3), 1374–1397.
- Wu, H. C., Cheng, C. C., & Hong, W. (2017). An empirical analysis of green convention attendees’ switching intentions. *Journal of Convention & Event Tourism*, 18(3), 159–190. <https://doi.org/10.1080/15470148.2017.1296393>
- Yin, J., Huang, Y., & Ma, Z. (2023). Explore the Feeling of Presence and Purchase Intention in Livestream Shopping: A Flow-Based Model. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(1), 237–256. <https://doi.org/10.3390/jtaer18010013>
- Yun, S., & Kim, T. (2022). *Can Nature-Based Solutions (NBSs) for Stress Recovery in Green Hotels Affect Re-Patronage Intention ?* 1–15.
- Zhang, M., Qin, F., Wang, G. A., & Luo, C. (2020). The impact of live video streaming on online purchase intention. *Taylor & Francis*, 40(9–10), 656–681. <https://doi.org/10.1080/02642069.2019.1576642>