



# Dimensions Of Website Design Quality And Its Influence On Consumer Value In Apparel E-Retailing Contexts

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## ARTICLE INFO

## ABSTRACT

**Purpose** – For the e-retailing businesses to expand, consumer-focused techniques must be implemented beside traditional retail tactics. Creating a reliable measurement scale to evaluate the consumer value of internet-based apparel purchasing is the main goal of this research.

**Design/ Methodology** - The methodology for assessing consumer value was later followed by the gathering of data via an internet-based survey. The well-organized survey included a sample of 325 purchasers of apparel e-retailing websites. Employing the technique of structural equation modelling (SEM) in the Smart-PLS initiative to examine the assumptions of the study.

**Findings** - The results of the analysis indicate the impact of these website design aspects on the effectiveness of e-retailing apparel enterprises. The examination of the Smart-PLS reveals a significant positive influence of Website aesthetics (WAFW), Website personalisation (WPFW), and Price Offerings (POFW) on Consumer Value (CVW).

**Practical Implications** – E- retailing business who demonstrate exceptional proficiency in providing enhanced experiences in terms of price, aesthetics, and personalisation have the potential to outperform their competitors and develop more robust consumer connections.

**Originality/Value** - An empirical framework that demonstrates the factors that influence consumer value. As far as the authors are aware, previous studies have not developed a consumer value framework that takes into account a specific combination of exogenous variables such as aesthetics, personalization and price offerings, particularly in the context of e-retailing apparel purchasing platforms.

**Keywords** – Consumer value, Dimensions of Website design quality, Apparel shopping platforms, E-retailing

## INTRODUCTION

According to the estimations made by **Grand View Research (2020)**, the worldwide retail e-commerce market is expected to expand at a rate of 9.4% year between the years 2020 and 2027, reaching a significant value of \$4.25 trillion in 2019. Consumers' growing usage of mobile devices such as smartphones and tablets has not only made it possible for consumers to quickly and easily share information about purchases and for businesses to gain feedback from consumer about these products, but it has also brought significant changes in the markets for e-commerce shopping around the world. However, the fundamental values of consumers continue to vary from different countries. This is due to the fact that social and cultural values, as well as demographics, have various opinions, expectations regarding e-commerce shopping channels. Technological advancement, particularly in software infrastructure, has recently risen to the top of the Internet world's popularity. This results in novel ideas across the e-commerce websites for businesses to attract a larger consumer base **Hasan and Abuelrub (2011)**. Specifically, e-commerce shopping websites is a rapidly expanding industry that has become integral to our daily life. From startups to household businesses and nonprofits of every kind use their websites to introduce their products/services to reach consumer goals and

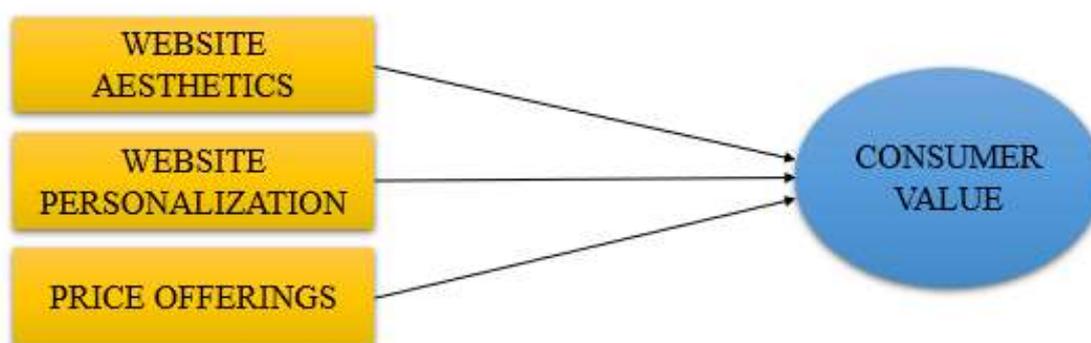
desires, values. Among the ever-changing e-commerce landscape, apparel websites are pivotal since they facilitate the purchase of apparel products and have a major influence on customer behavior and decision-making in terms of value **Yeo, S. F et al (2022)**.

A well-structured website design quality dimensions has a positive effect on consumers to use the shopping websites **Fan and Tsai (2010)**. Businesses in India will be prompted to try new things when it comes to creating value for consumers, creating products, providing services, and distributing them by the younger generation that will be entering the workforce by 2020 **Deloitte, (2014)**. The importance of consumer value in purchasing and shopping models in marketing strategy has grown throughout the years.

The "means-end" approach, which is widely used in consumer value, aims to shed light on the ways in which a person's choice of a product or service might influence the likelihood that they will be successful in accomplishing their objectives. On the other hand, it highlights the significance of the connection between the quality aspects of website design and the values that consumers hold in order to guide their purchasing decisions. With regard to attributes and values, the means end chain theory is concerned. According to **Borgardt (2018) and (2020)**, consumers consider the specific characteristics of an apparel website's layout and the benefits that can be gained from these characteristics when making a purchasing decision.

The Rokeach Value Survey and the Means End Chain both have theoretical gaps. Particularly, this research fills a theoretical gap by examining the means-end chain in conjunction with consumer value. **Aydin et al. (2023)** shows very little is known about the attributes of apparel purchasing business that cater to consumers' wants and priorities based on the criteria that are most important to them. **North et al., (2003)** Consequently, this research's implications suggest that, in order to better understand why consumer, buy apparel online, designers of apparel websites should focus on the consumers' needs and wants. To create more effective marketing strategies, it will also be useful for technologists building e-commerce websites.

### CONCEPTUAL FRAMEWORK



**Figure 1** Conceptual Model

### LITERATURE REVIEW

#### WEBSITE AESTHETICS AND CONSUMER VALUE

Website aesthetics and consumer value are now more important than ever for businesses in the digital era that want to attract and keep consumers online **Hassenzahl & Tractinsky, (2006)**. Theoretical frameworks surrounding website aesthetics delve into its multifaceted nature, encompassing visual design elements, multimedia content and navigation **Rita et al (2019)**. Concurrently, the conceptualization of consumer value, spanning utilitarian, hedonic, and social dimensions, provides insight into the factors driving consumer behavior online **Woodruff & Gardial, (1996)**. Methodologically, studies employ diverse approaches, including surveys, to explore this relationship, though challenges persist in accurately measuring website aesthetics and consumer value **Sun & Zhang, (2006); Cyr et al., (2007)**. Empirical evidence highlights the varied effects of website aesthetics across industries and contexts, emphasizing the need for tailored strategies in website design and optimization **Chen et al., (2009)**. Looking ahead, future research should address emerging trends and technologies, advancing our understanding of how website aesthetics can maximize consumer value in an ever-evolving digital landscape **Huang & Benyoucef, (2013)**.

#### **Hypothesis 1 – Website Aesthetics have a positive influence on Consumer value**

#### WEBSITE PERSONALIZATION AND CONSUMER VALUE

Website personalization has emerged as a pivotal strategy for enhancing consumer value in the digital realm **Verhoef et al., (2010)**. Theoretical frameworks on website personalization delve into its role in tailoring online experiences to individual preferences and characteristics, encompassing aspects such as product recommendations, content customization, and targeted marketing **Li et al., (2019); Xu & Walton, (2005)**.

Website personalization involves tailoring content, recommendations, and user experiences based on demographic data, browsing history, and behavioral patterns, thereby enhancing perceived value and satisfaction **Chen & Huang, (2019); Verhagen et al., (2015)**. Research highlights the positive impact of personalized experiences on consumer engagement, trust, and loyalty, emphasizing the role of relevance and context in driving consumer value **Kumar & George, (2007); Li & Karahanna, (2015)**. Methodologically, studies employ a range of techniques, including data analytics, machine learning, and A/B testing, to assess the effectiveness of personalized strategies in optimizing consumer experiences **Acar & van den Ende, (2016); Li et al., (2020)**. Empirical findings demonstrate the nuanced effects of website personalization across different industries and cultural contexts, necessitating flexible and adaptive approaches to implementation **Nasir et al., (2020); Wang et al., (2018)**. Looking forward, future research should explore emerging trends such as AI-driven personalization and ethical considerations in data privacy, advancing our understanding of how personalized websites can maximize consumer value in an increasingly interconnected digital landscape **Choi & Kim, (2019); Shen et al., (2020)**.

### **Hypothesis 2 – Website Personalization have a positive influence on Consumer value**

#### **PRICE OFFERINGS AND CONSUMER VALUE**

Price offerings play a critical role in shaping consumer perceptions and behaviors, serving as a key determinant of perceived value and purchase decisions. Theoretical frameworks from consumer behavior and marketing literature underscore the multifaceted nature of price perceptions, incorporating concepts such as reference pricing, price fairness, and price-quality inference **Zeithaml, (1988)**. Empirical research highlights the dynamic relationship between price offerings and consumer value, demonstrating that perceived value is influenced not only by the absolute price level but also by factors such as price promotions, price presentation, and perceived value-for-money **Dodds et al., (1991); Lichtenstein et al., (1993)**. Methodologically, studies utilize experimental designs, surveys, and field observations to examine the impact of various pricing strategies on consumer perceptions and behaviours, including price bundling, discounts, and dynamic pricing **Briesch et al., (1997)**. The literature emphasizes the importance of aligning price offerings with consumer preferences and expectations, as well as the need for transparency and consistency in pricing practices to build trust and enhance perceived value **Nagle & Müller, (2017); Suri et al., (2016)**. Looking forward, future research should explore emerging trends such as personalized pricing and subscription-based models, advancing our understanding of how price offerings can be leveraged to maximize consumer value in an increasingly competitive marketplace **Zhang et al., (2010)**.

### **Hypothesis 3 – Price offerings have a positive influence on Consumer value**

#### **RESEARCH METHODOLOGY AND DATA ANALYSIS**

The research methodology employed in this study targets apparel website shoppers who hold e-commerce accounts. With a sample size of 325, the study adopts a purposive sampling technique, a type of non-probability sampling method commonly used when researchers seek to select specific individuals or groups who possess particular characteristics relevant to the research objectives. This approach allows for the selection of participants who are likely to provide valuable insights into the research topic, namely, consumer behavior and perceptions within the context of e-commerce apparel shopping.

The chosen research design is descriptive in nature, aiming to systematically describe and analyze the characteristics, behaviors, and perceptions of the target population regarding their experiences with apparel websites. Descriptive research designs are well-suited for exploring and understanding phenomena, providing insights into the current state of affairs without manipulating variables or establishing causality. In this case, the research seeks to uncover patterns, preferences, and trends among apparel website shoppers with e-commerce accounts, shedding light on their shopping habits, satisfaction levels, and perceptions of value.

Participants in the study are selected based on specific criteria, including their status as apparel website shoppers and holders of e-commerce accounts. Purposive sampling allows researchers to target individuals who are actively engaged in online apparel shopping, ensuring the relevance and validity of the data collected. By focusing on this specific segment of the population, the research aims to generate insights that are directly applicable to e-commerce businesses operating in the apparel industry.

The data collection process for this study was conducted in Karnataka, India, utilizing a structured questionnaire distributed through Google Forms. The questionnaire was designed to gather relevant information from participants regarding their e-commerce shopping behavior, preferences, and experiences specifically within the apparel sector.

The analysis conducted for this study utilized the SmartPLS software, which is a powerful tool for structural equation modeling (SEM) and path analysis. SmartPLS allows researchers to assess complex relationships between latent variables such as consumer value and observed indicators, such as website aesthetics, website personalization and price offerings making it particularly suitable for analyzing data with multiple constructs and paths, such as in the case of the present study in e-commerce apparel shopping behavior.

## RESULTS AND DISCUSSIONS

The Cronbach's alpha, composite reliability, and average variance extracted (AVE) values for three constructs: Price Offerings (\_POFW), Website Aesthetics (\_WAFW), and Website Personalization (\_WPFW). These values are commonly used in the context of assessing the reliability and validity of measurement scales in research, particularly in fields like psychology, marketing, and management.

Each of these metrics represents as suggested by Hair et al., (2014); Fornell & Larcker, (1981)

✓ Price Offerings (\_POFW) has high reliability, with Cronbach's alpha of 0.931 and composite reliability of 0.937. Its AVE is also acceptable at 0.831.

✓ Website Aesthetics (\_WAFW) also shows high reliability, with Cronbach's alpha of 0.922 and composite reliability of 0.925. However, its AVE is slightly lower at 0.764, but still reasonable.

✓ Website Personalization (\_WPFW) demonstrates similar reliability to the other constructs, with Cronbach's alpha of 0.933 and composite reliability of 0.937. Its AVE is 0.795, indicating good convergent validity.

Overall, Table 1 based on these metrics, it seems that all three constructs have good internal consistency reliability and convergent validity

**Table 1** Reliability and Validity Test

Constructs	Cronbach's alpha	Composite reliability	(AVE)
Price Offerings _POFW	0.931	0.937	0.831
Website Aesthetics _WAFW	0.922	0.925	0.764
Website Personalization _WPFW	0.933	0.937	0.795

Table 2 explains the Heterotrait-Monotrait Ratio (HTMT). It helps determine whether the constructs in a model are distinct from each other by comparing the correlations between different constructs (heterotrait correlations) to correlations within the same construct (monotrait correlations).

Here's a breakdown of the HTMT values you provided, along with an interpretation for each comparison

Price Offerings (\_POFW) <-> Consumer Value (\_CVW): HTMT = 0.756, This value indicates the correlation between Price Offerings and Consumer Value. It suggests that the constructs are moderately related but still sufficiently distinct from each other, indicating acceptable discriminant validity.

Website Aesthetics (\_WAFW) <-> Consumer Value (\_CVW): HTMT = 0.702, Similarly, this value suggests a moderate correlation between Website Aesthetics and Consumer Value. Again, while they are related, they appear to represent distinct constructs, supporting discriminant validity.

Website Aesthetics (\_WAFW) <-> Price Offerings (\_POFW): HTMT = 0.298, This value indicates a lower correlation between Website Aesthetics and Price Offerings compared to the correlations involving Consumer Value. It suggests that Website Aesthetics and Price Offerings are more distinct from each other than either is from Consumer Value, further supporting discriminant validity.

Website Personalization (\_WPFW) <-> Consumer Value (\_CVW): HTMT = 0.711, Similar to the other comparisons involving Consumer Value, this value indicates a moderate correlation.

Website Personalization and Consumer Value are related but distinct constructs. Website Personalization (\_WPFW) <-> Price Offerings (\_POFW): HTMT = 0.262, This value suggests a relatively low correlation between Website Personalization and Price Offerings, further supporting their discriminant validity.

Website Personalization (\_WPFW) <-> Website Aesthetics (\_WAFW): HTMT = 0.201, Finally, this value indicates a low correlation between Website Personalization and Website Aesthetics, again supporting their distinctiveness as constructs.

The findings drawn is that each construct represents a unique aspect of the phenomena under study. This means that Price Offerings, Website Aesthetics, Website Personalization, and Consumer Value are likely tapping into different dimensions or facets of the overall phenomenon being investigated, such as customer perceptions, preferences, or satisfaction with a product or service.

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**Table 2** Discriminant Validity

	Heterotrait-monotrait ratio (HTMT)
Price Offerings _POFW <-> Consumer Value _CVW	0.756
Website Aesthetics _WAFW <-> Consumer Value _CVW	0.702
Website Aesthetics _WAFW <-> Price Offerings _POFW	0.298
Website Personalization _WPFW <-> Consumer Value _CVW	0.711
Website Personalization _WPFW <-> Price Offerings _POFW	0.262
Website Personalization _WPFW <-> Website Aesthetics _WAFW	0.201

**Table 3** Quality Criteria – R square

Construct	R-square	R-square adjusted
Consumer Value _CVW	0.991	0.991

The above table 3 explains the regression using smart-pls. The R-squared and adjusted R-squared values of 0.991 indicate that the regression model, which likely includes factors such as price offerings, website aesthetics, and website personalization, does an excellent job of explaining the variability in consumer value. These high values suggest that the model is highly predictive and that the included independent variables are highly relevant to understanding and predicting consumer perceptions of value.

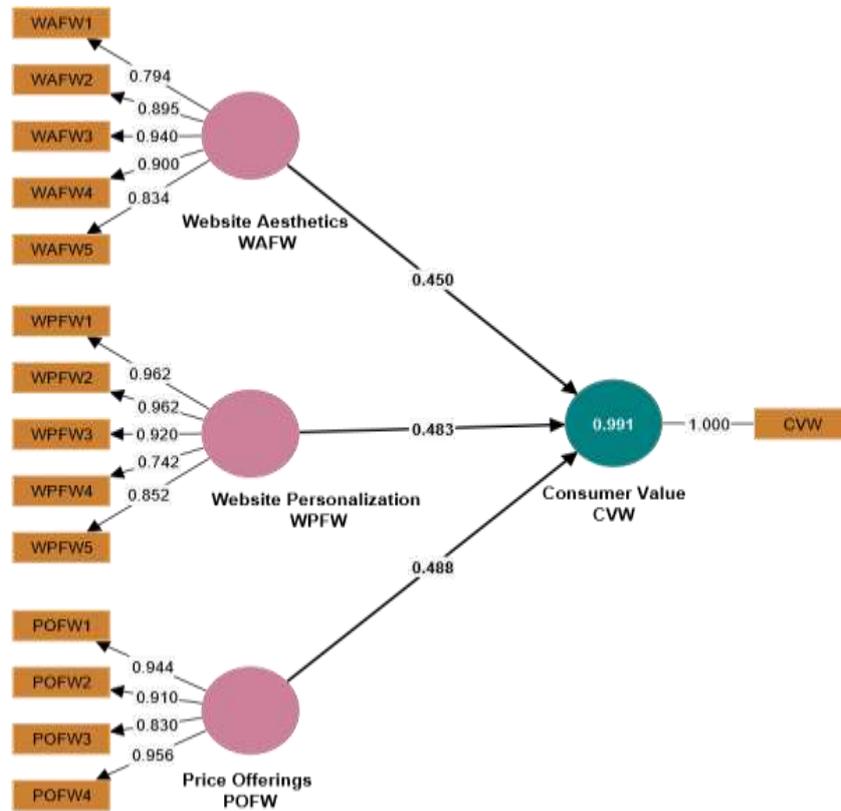


Figure 2 Structural Model – Path Coefficients

Table 4 Summary of the Conceptual Model

Hypothesis Development	Path Coeff.	(STDEV)	T statistics	P values
Website Aesthetics _WAFW -> Consumer Value _CVW (H1)	0.451	0.024	18.555	0.000
Website Personalization _WPFW -> Consumer Value _CVW (H2)	0.482	0.022	22.243	0.000
Price Offerings _POFW -> Consumer Value _CVW (H3)	0.489	0.024	20.462	0.000

The above table 4 explains the summary of the conceptual model results shows

**Hypothesis 1** - Path Coefficient: 0.451 this coefficient represents the standardized effect size of the change in consumer value for a one-standard-deviation increase in perceived website aesthetics. Example: Consider an e-commerce website with visually appealing design, intuitive navigation, and high-quality images. A high path coefficient of 0.451 suggests that if consumers perceive the website aesthetics positively (e.g., attractive layout, easy to use), their perception of consumer value is expected to increase. For instance, if a website redesign leads to improved aesthetics resulting in more positive user experiences, this coefficient suggests that consumer value would likely increase accordingly.

**Hypothesis 2:** Path Coefficient: 0.482, this coefficient represents the standardized effect size of the change in consumer value for a one-standard-deviation increase in perceived website personalization. Example: Imagine an online platform that personalizes content, recommendations, and user experience based on individual preferences and past interactions. A high path coefficient of 0.482 suggests that if consumers perceive the website as personalized and catering to their specific needs, their perception of consumer value is expected to increase. For instance, if an e-commerce platform implements advanced personalization algorithms resulting in more relevant product recommendations and customized experiences, this coefficient suggests that consumer value would likely increase accordingly.

**Hypothesis 3:** Path Coefficient: 0.489, This coefficient indicates the direction of the relationship between perceived price offerings and consumer value. It represents the standardized effect size of the change in consumer value for a one-standard-deviation increase in perceived price offerings. Example: Suppose a company offers a range of products at different price points. A high path coefficient of 0.489 suggests that if consumers perceive the price offerings as more attractive (e.g., reasonable prices, discounts, value for money), their perception of consumer value is expected to increase. For instance, if a company introduces a new pricing

strategy resulting in more favorable price perceptions among consumers, this coefficient suggests that consumer value would likely increase accordingly.

In summary, each path coefficient quantifies the extent to which perceived price offerings, website aesthetics, and website personalization influence consumer value. These coefficients provide valuable insights for businesses aiming to enhance consumer perceptions and drive value through various aspects of their offerings and online presence.

## CONCLUSION

The study investigated the relationships between website aesthetics, website personalization, price offerings, and consumer value perception. The analysis revealed significant path coefficients for all three hypotheses, indicating strong positive relationships between each independent variable and consumer value.

H1 concludes the path coefficient of 0.451 suggests that improvements in website aesthetics positively influence consumer value perception. A visually appealing and user-friendly website design is associated with higher perceived value among consumers. H2 concludes with a path coefficient of 0.482, the results indicate that personalized website experiences contribute significantly to enhancing consumer value perception. Tailoring content and recommendations to individual preferences and behaviors can lead to increased perceived value. H3 concludes The path coefficient of 0.489 highlights the importance of price offerings in shaping consumer value perception. Favorable pricing strategies, such as competitive pricing or value-based pricing, positively impact consumer perceptions of value. Also, the exceptionally high R-squared value of 0.991 indicates that the regression model, incorporating variables such as price offerings, website aesthetics, and website personalization, effectively explains 99.1% of the variance in consumer value perception. Additionally, the significant path coefficients demonstrate strong relationships between these factors and consumer value. Overall, the findings suggest that strategic investments in website aesthetics, personalization efforts, and pricing strategies can effectively influence consumer value perceptions. Businesses that prioritize these factors are likely to enhance customer satisfaction, loyalty, and ultimately, profitability.

These results underscore the significance of considering multiple dimensions of value creation in marketing strategies and highlight avenues for businesses to differentiate themselves in competitive markets. By aligning their offerings with consumer preferences and expectations, companies can position themselves for sustained success and growth.

## IMPLICATIONS

- Businesses can make informed decisions regarding pricing strategies, website design, and personalization efforts based on their significant impact on consumer value perception. Optimizing these factors can enhance customer satisfaction and loyalty.
- Prioritizing user-centric design principles and personalized experiences on e-commerce platforms can lead to improved consumer perceptions of value, ultimately driving conversion rates and revenue.
- Companies that excel in delivering value-added experiences across pricing, aesthetics, and personalization dimensions can gain a competitive edge in the marketplace and foster stronger customer relationships.

## LIMITATIONS AND FUTURE RESEARCH

The findings may be context-specific and may not generalize to all industries or markets. Different consumer segments and cultural contexts may exhibit varying responses to pricing, aesthetics, and personalization strategies. The accuracy and reliability of the measurement scales used to assess consumer value perception and its determinants could impact the validity of the findings. Ensuring robust measurement techniques is crucial for drawing accurate conclusions. Also, While the R square identifies associations between variables, it cannot establish causality. Further research using experimental designs or longitudinal studies is necessary to elucidate causal relationships. Also, Investigating the implications of emerging technologies, such as artificial intelligence and virtual reality, on consumer value creation and delivery could uncover new opportunities for innovation and competitive advantage.

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