FACTORS INFLUENCING WOMEN'S PERCEPTION OF WEBSITE ATTRIBUTES AND PURCHASE INTENTIONS

Vaishali Hemant Pardeshi, Kohinoor Business School, Mumbai, India
Dr. Vandana Khanna, K. J. Somaiya Institute of Management Studies and Research, Mumbai, India

ABSTRACT

The purpose of this study was to examine the purchase intention of women based on their perceptions of web attributes. Survey data from women in Mumbai aged 18-22 with the online clothing shopping experience. Two major apparel website attributes were identified by factor analysis (i.e. 'Product and Customer Care Information' and 'User-friendliness'). Multiple regression results showed a statistically significant relationship between User-friendliness and Online Purchase Intentions of women. The results also reveal that Product and Customer Care information is no longer a novel factor for consumers and hence had a low statistically significance. The above research findings would help provides deep insights e-retailers to formulate and implement effective website design strategies for enhancing the purchase intentions of consumers.

Keywords: Web Attributes, Purchase Intention, Online Shopping, User Friendliness, Product and Customer Care Information.

INTRODUCTION

The growth of online shopping in India is fueled due to an increase in the no digital consumers. There are more than half a billion internets. The fall in the cost and increased availability of digital devices and high-speed connectivity are the factors for the increase in subscriber base (Kaka et al., 2019). Online retail in India will touch $170 billion or 8% of the total retail market of the country by 2030. India's apparel market will be worth $59.3 billion in 2022 according to data from McKinsey's Fashion Scope (Amed et al., 2019). As per the studies the women's apparel market is projected to reach nearly three trillion Indian rupees by 2028 in India (Keelery, 2020). The statistical figures indicate that Women Apparel is one of the most important segments. It is important to focus on this segment to reap maximum benefits.

Online shopping offers the luxury and convenience of shopping from the comfort of home. It offers a virtual buying experience and provides wide payment options. It reduces the time and effort required for shopping, providing 24 hour/7 days a week availability. In addition, it provides a wide range of products of reliable quality at a comparatively lower price (Dawson & Kim, 2010; Kamarulzaman, 2011, Sarkar, 2011). It was found to be user-friendly, offering personalized experience, facilitating the evaluation of product quality, and ease of product return (Kamarulzaman, 2011). The facility to compare similar products on the same, as well as other websites, helped them in making better buying decisions (Johnson et al., 2004).

Consumers found online shopping to be advantageous over traditional off-line shopping as the products are better priced, it was convenient, and secure to shop online. Online shopping

also provided detailed information about the products and the customer's privacy was maintained (Alba et al., 1997). Consumers felt online shopping to be similar to the traditional brick and mortar store in terms of shopping experience and did not find it to be complex. The facility to try the product is a factor that helps the consumer to make the buying decision. Online shopping offers a hassle-free return the product after the trial. Consumers found online shop return the product after the trial. Consumers found online shopping to be thrilling, enjoyable, stimulating, and simple (Passyn et al., 2011).

Women and Online Apparel sale in India

India has more than 630 million internet subscribers. The availability of cheap mobile data rate has led to rise in data consumption. Mumbai tops the number to internet users among the other metros in India. The huge improvement in recent years is due the availability of affordable 4G network. The major drivers for the growth of online apparel shopping are growth of online shopping portals, a flourishing video streaming industry and a wide range of inexpensive devices. In India there are around 100 million women who use smartphone of which 40% shop online. In Tier-1 cities like Mumbai 53% shop online using smartphone and other devices (Harsh, 2018). The major driving factor behind the popularity of online apparel sales is the increase in the number of working women in Teir-1 cities like Mumbai. The increase in financial independence among working women has given them the liberty to spend lavishly on apparel. They shop online as it saves them time, offers wide range of apparels, offers discounts, etc. The status of women in the traditional Indian patriarchal society has undergone a huge change. Women now have a significant say in the household affairs even in rural areas of India (Varun, 2019).

Some of the distinct bargain trends that women look for while shopping for apparel online are availability of free shipping, best bargains, annual/festival sales, coupons/promo codes and promotional offers. The bargain attributes present on apparel website significantly affect women's purchase intentions and their perception towards the website. The major drivers and barriers affecting women's purchase intentions and their perception are listed in Table 1 (Willy, 2017).

Table 1 DRIVERS AND BARRIERS OF ONLINE APPAREL SHOPPING	
Drivers	**Barriers**
Ability to shop 24/7	Inability to touch, feel and try apparel
Ability to compare price	Unsure about the look and fit of the apparel
Availability of online sale / Better price	Long delivery time
Convenience to Shop from anywhere	High shipping cost
Greater variety in terms of colour, size, style, brand, etc	Lack of trust related to security and privacy
Free shipping offers	High shipping cost
Avoid visiting market crowd	Inability to verify the authenticity of the apparel
Detailed product information	Inability to enjoy the experience of physical shopping
Easy Return/Pickup	Complex return process

LITERATURE REVIEW

Previous research on online shopping reveals that web attributes have a significant impact on consumers purchase intentions. Web attributes are significant in attracting customers and keeping them loyal towards their preferred website. Web attributes like financial and personal security, uploading of images, transaction time, product availability, customer service, and aesthetic factors such as the design of the website, have an impact on consumers' purchase intention (Chincholkar & Sonwaney, 2017). As per the study, Website service quality attributes such as reliable/prompt responses, access, ease of use, attentiveness, security, and credibility are essential to satisfy the online shopper (Jun, et al., 2004). The findings of the research done by Sejin, suggest that website content/functionality, atmospheric/experiential quality, privacy/security, and customer service have a significant impact on e-shopping satisfaction, contributing to e-shopping intention (Ha & Stoel, 2012). As per the findings of Kim, perception of risk, and consumer satisfaction is influenced by the presence of information related to product, company, return/exchange, and security/privacy on the online platforms. It was also found that product-related information such as verbal descriptions, visual aids such as photographs, videos, and audios, enhanced consumers experience resulting in reduced risk perception and increased shopping intention (Kim & Lennon, 2010). As per the studies by Jun, three dimensions i.e reliable/prompt responses, attentiveness, and ease of use had significant impacts on customers perception of service quality and satisfaction (Jun et al., 2004). Website attributes like an interactive chat function, a video presentation, and a personalized shopping experience were found to make the internet shopping experience more pleasurable (Kim et al., 2007). Website having customized attributes, interactivity, enticing virtual experience and product information aided consumers purchasing decisions and reduced purchase-related risk (Yang & Young, 2009). As per the studies by Zui, the usefulness of a website is measured by the ease of locating products, its information and the colour scheme, attractiveness, and website layout (Lee & Paul, 2012). According to the studies by Park, out of the three factors i.e variety of selection, price, sensory attributes, variety in terms of colour and design play an important role in web browsing and e-impulse buying for apparel products (Park et al., 2012). As per the studies by Kim, concentrating and improving the appearance of the web pages, navigation capability, and experiences can increase the shopping frequency and loyalty towards e-retailers (Kim & Stoel, 2004). Based on the above literature review, it can be concluded that website attributes have a major impact on customer purchase intentions.

RESEARCH METHODOLOGY

Research Objectives

This research focuses on

1. Finding perceptions of women in Mumbai related to apparel website attributes.
2. Studying women's purchase behavior based on their perception of web attributes.
3. Finding the web attributes that have a significant impact on women's purchase intentions.

Data Collection

An online questionnaire was used to collect the responses from the respondents. The sample consisted of women staying in Mumbai who shopped apparel online using mobile apps

and websites. The respondents considered shopped from general as well as apparel specific websites. The women aged between 18-55 years were considered. A survey included demographic items such as marital status, age, occupation, education, kids, and family income. The questions were derived from the literature review and the items were modified to fit the purpose of this research. The variables were measured using the five-point Likert scale (1=*'strongly disagree'* to 5=*'strongly agree'*). The survey scale consisted of 14 items. Four hundred and fifty valid responses were considered for the study.

Quota Sampling Technique was used to select the sample of respondents. The reliability and validity of the questionnaire were measured using Cronbach's alpha and Factor Analysis. Finally, the Multiple Regression Technique was used to measure the impact of each factor on women's perception of website attributes.

Reliability and Validity Test

The Reliability analysis was carried out on the perceived scale value of 14 items. The Cronbach's Alpha showed the questionnaire reached acceptable reliability $\alpha = 0.93$. Most of the items appeared worthy of retention and thus all were considered. Table 2 shows the reliability statistics based on Cronbach's Alpha.

Table 2 RELIABILITY STATISTICS		
Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**No of Items**
0.930	0.935	14

The KMO is 0.935 (between 0.5 and 1.0) which is considered excellent to perform factor analysis. The Bartlet's Test of Sphericity showed significance (p=0.000), showing that the variables are correlated. This means Factor Analysis can be performed. Table 3 shows the results of KMO and Bartlett's Test.

Table 3 KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**0.935**
Bartlett's Test of Sphericity	Approx. Chi-Square	4602.078
	Df	91
	Sig.	0.000

Exploratory Factor Analysis is used to identify a set of hidden constructs. It is applicable when the researcher does not have a prior hypothesis about the factors or patterns of measured variables thus, it is used in the current study.

Table 4 shows the correlation of the variables with each extracted factor. Based on the principal components analysis and VARIMAX the results also showed that the Eigenvalues for all the constructs were greater than 1.0. In terms of convergent validity, the factor loadings for all items within a construct were more than 0.50. Discriminant validity indicated that all items were allocated according to the different constructs. The items were not overlapping.

To identify the variables in each factor, the variable with the maximum value in each row was selected to be the part of the individual factor. Fourteen Questions on women's perception of website attributes were selected and their purchase intentions in the last one year were analyzed

using varimax principal component rotation. The analysis yielded two factors explaining a total of 66 % of the variance for the entire set of variables. Factor 1 was Labeled *as 'product and customer care information'* due to the high loading of the items that relate to the product and customer care information. The first factor had a variance of 55 %. The second factor was labeled as '*user friendliness'* due to the high loadings of the items related to user-friendly features in a website. The second factor had a variance of 11 %. The summary of the identified website attribute (factors) is shown in Table 4. The factor notations are shown in Table 5.

Table 4 RESULTS OF FACTOR ANALYSIS					
Factor Name	**Variables**	**Factor Loadings**	**Eigen Value**	**Percentage of Variance**	**Cronbachs Alpha**
Product and Customer Care Information	It (Website) should show All available Colours and Sizes of the Apparel	0.790	7.699	55.00%	0.925
	It (Website) should show Detailed Information about the Apparels (clothes) Quality	0.793			0.925
	It (Website) should show Quality Photographs of the Apparel (Clothes)	0.840			0.923
	It (Website) should show Sizing Chart	0.816			0.924
	It (Website) should have the facility of Easy Return and Pick-up	0.814			0.922
	It (Website) should have Quick Money-Back Option for the Returned Apparel (clothes)	0.768			0.922
	It (Website) should have the Option for Recheck and Reconfirm the Order details	0.597			0.924
	It (Website) should Assure Safety of Credit/Debit Card /Net-banking details and other Personal Details	0.790			0.924
	It (Website) should have Customer Care Assistance	0.690			0.923
User Friendliness	It (Website) should notify new Apparel updates	0.828	1.539	10.99%	0.930
	Switching between Web-pages should be Easy and Quick	0.669			0.927
	Website should Load the Apparel Images Quickly	0.610			0.924
	It (Website) should have Video Display of the Apparel	0.775			0.930
	It (Website) should give Style tips for the Apparel	0.683			0.930

Table 5 FACTOR NOTATIONS		
Sr. No	**Factor**	**Factor Label**
1	Product and Customer Care Information	Factor 1
2	User Friendliness	Factor 2

Framing of Hypothesis

Hypothesis are framed based on the identified factors and previous related studies.

Product and Customer Care Information (Factor 1)

The study by Park, reveals that product information on the website leads to an increase in the sale of apparel while sparse information on the website may lead to fewer purchases (Park & Stoel, 2002). The evaluation of service information and perception of security affects the assessments of websites as consumers perceive it to reduce transactional cost and risk. This increases consumer's commitment towards the website and the actual purchases (Park & Kim, 2003). As per the study done by Hwan, visual product presentation, privacy and security statements, information about company and product guarantee were considered as highly relevant for goal-oriented shopping (Kim et al., 2007). The study done by Park revealed that if the quantity of the product information is too much then it is difficult for the shoppers to comprehend it and such information is ignored by them (Park, et al., 2005). The presentation of product information rather than the amount of information matters the most on the apparel website (Jang & Burns, 2004).

H1: There is a statistically significant relationship between product and customer care information and online purchase intentions of women.

User Friendliness

According to the studies by Carlsson, apparel shoppers who had high shopping involvement liked videos as they felt that it gave realistic information on the product. They also liked the zoom feature of the product images as it allowed to have a close look at the fabric details (Carlsson, & Chehimi, 2011). Visual presentations in the form of images and videos gave shoppers an idea of how the apparel looks like, leading to positive perceptions, repetitive purchases, and browsing (Kerfoot et al., 2003). The ability switch from one page to another on a web site led to ease of shopping and increased purchase intention (Ranganathan & Ganapathy, 2002). The studies of Carlsson, revealed that consumers disliked buffering or loading of images. They wanted the images to load quickly (Carlsson, & Chehimi, 2011). Consumers who are interested in saving time and want to make their want to make use of updates and product notifications to buy the product (Kim & Stoel, 2004). Websites designers can create personalize experience for consumers by tracking user behaviour. They can recommend products and give styling tips to the consumer based on consumers buying history and other demographics (Aaron Orendorff, 2019).

H2: There is a statistically significant relationship between user-friendliness and online purchase intentions of women.

RESULTS

Multiple regression is valuable when forecasting human behaviour, as human actions, opinions, and feelings are more likely to be prejudiced while mixing several factors (Gianie Abdu, 2013). By means of Multiple Regression, users can test theories about exactly which set of variables is affecting human behaviour (Dar & Anuradha, 2018). A multiple regression was

carried out to investigate whether factor 1 and factor 2 affected women's purchase intention. The results of the regression indicated that the model explained 4.5% of the variance and that the model was a significant predictor of women's purchase intention, $F(2,473)=11.137$, $p=0.000$. Adjusted R square=0.538. Table 6 shows the model summary and table 7 shows ANOVA results.

Table 6 MODEL SUMMARY				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.212[a]	0.045	0.041	0.953

a. Predictors: (Constant), User-friendliness, Product and Customer Care Information

Table 7 ANOVA[b]					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	20.281	2	10.141	11.172	0.000[b]
Residual	429.321	473	0.908		
Total	449.603	475			

a. Dependent Variable: Over the past One Year, after finding the apparel on the website you shop, How often did you Buy Apparel Online?
b. Predictors: (Constant), User-friendliness, product and customer care

The Regression Coefficients are shown in table 8. The factor 1 (B=0.022, p=0.674) and factor 2 (B=0.201, p=0.000) significantly contributed to the model. The final predictive model was: Purchase Intension = 2.276 + (0.022* product and customer care information) + (0.201* user friendliness).

Table 8 REGRESSION COEFFICIENTS					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	2.276	0.283	-	8.034	0.000
Factor 1	0.003	0.008	0.022	0.421	0.674
Factor 2	0.047	0.012	0.201	3.935	0.000

a. Dependent Variable: Over the past One Year, after finding the apparel on the website How will you Buy Apparel Online?

DISCUSSIONS

The summary of the results of regression analysis is shown in Table 9. The p-value of the factor 1 (p=0.674) is greater than the alpha value of 0.05. Thus, the research concludes that product and customer care information is not positively related to the customer online purchase intention. Hypothesis 1 is not supported. The p-value of the factor 2 (p=0.00) is less than the alpha value of 0.05. Thus, the research concludes that user friendliness is positively related to the customer online purchase intention. Hypothesis 2 is supported.

The research provides some insights to the academic community and the e-tailers. The findings of the research have some limitations. The study focuses on women who shop online for apparel and does not include women who shop offline. Hence, the findings cannot be generalized

for a larger segment. As only women shoppers were considered, the impact of gender on purchase intentions cannot be evaluated. The study considers women who reside in Metros (Mumbai). Hence, the results cannot be applied to Tier -II and rural areas.

Table 9 SUMMARY OF RESULTS OF REGRESSION ANALYSIS			
Hypothesis	**p value**	**Decision**	**Remark**
H1	0.674	Rejected	Does not contribute to model
H2	0.00	Accepted	contribute to model

CONCLUSION

The research finding has several implications for online retail managers, academicians, and stakeholders. Earlier studies on web attributes had found that product and customer care information are the most important attributes affecting purchase intentions. Major website nowadays has detailed product and customer care information. Thus, product and customer care information is not a novel factor for consumers. The findings of this study reveal that user-friendliness is more important than product and customer care information. Thus, the online retail mangers should lay emphasis on designing a website that offers quick switching between web pages, fast loading of apparel images, video display, styling tips and notification of new apparel. This would help the consumer to make a better and quick purchase decisions, thereby increasing loyalty, satisfaction, retention, and future purchase intentions. The above research findings provide deep insights for the e-retailers to formulate and implement effective website design strategies.

Future Scope

Based on the limitations of this research some future work can be proposed. A study can be carried out to know the differences between the purchase intention of online and offline women shoppers. The differences in the assessment of web attributes and purchase intention of women between metro cites and Tier II/rural areas can be studied. The differences between the genders purchase intention can also be studied.

List of Abbreviations

Symbol	Abbreviations
P	Probability Value
B	Unstandardized Beta
T	T Statistic
Sig	Significant Value
F	F Statistic
R	**R** is the square root of **R**-Squared and is the correlation between the observed and predicted values of dependent variable
df	Degree of freedom

Acknowledgements

REFERENCES

Aaron Orendorff. (2019). The State of the Ecommerce Fashion Industry: Statistics, Trends & Strategy. Retrieved on 22nd April 2020 from https://www.shopify.com/enterprise/ecommerce-fashion-industry

Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., & Wood, S. (1997). Interactive home shopping: consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing*, *61*(3), 38-53.

Amed, I., Balchandani, A., Beltrami, M., Berg, A., Hedrich, S. & Rölkens, F. (2019). How India's ascent could change the fashion industry. Retrieved on 25th April 2020 from https://www.mckinsey.com/industries/retail/our-insights/how-indias-ascent-could-change-the-fashion-industry

Carlsson, L.J., & Chehimi, S. (2011). Multimedia and Purchase Intentions: Web Design for Fashion. *Technology*, *18*, 247-266.

Chincholkar, S., & Sonwaney, V. (2017). Website Attributes and its Impact on Online Consumer Buying Behaviour: An Empirical Study of Online Consumers in Mumbai Region. *Indian Journal of Science and Technology*, *10*, 47.

Dar, A., & Anuradha, N. (2018). Use of orthogonal arrays and design of experiment via Taguchi L9 method in probability of default. *Accounting*, *4*(3), 113-122.

Dawson, S., & Kim, M. (2010). Cues on apparel web sites that trigger impulse purchases. *Journal of Fashion Marketing and Management: An International Journal*, *14*(2), 230-246.

Gianie Abdu, P. (2013). Analysis of consumer behaviour affecting consumer willingness to buy in 7-eleven convenience store. *Universal Journal of Management*, *1*(2), 69-75.

Ha, S., & Stoel, L. (2012). Online apparel retailing: roles of e-shopping quality and experiential e-shopping motives. *Journal of Service Management*, *23*(2), 197.

Harsh, S., (2018). Reasons for the Surge in Women Online Shoppers in India. Retrieved on 26th June 2020 from https://www.entrepreneur.com/article/310538

Jang, E., & Burns, L.D. (2004). ACADEMIC PAPER: Components of apparel retailing Web sites. *Journal of Fashion Marketing and Management*, *8*(4), 375.

Johnson, E.J., Moe, W.W., Fader, P.S., Bellman, S., & Lohse, G.L. (2004). On the depth and dynamics of online search behavior. *Management Science*, *50*(3), 299-308.

Jun, M., Yang, Z., & Kim, D. (2004). Customers' perceptions of online retailing service quality and their satisfaction. *The International Journal of Quality & Reliability Management*, *21*(8), 817.

Kaka, N., Madgavkar, A., Kshirsagar, A., Gupta, R., Manyika, J., Bahl, K., & Gupta, S. (2019). Digital India: Technology to transform a connected nation. *McKinsey Global Institute, March*.

Kamarulzaman, Y. (2011). E-consumer behaviour: Exploring the drivers of e-shopping. *European Journal of Social Sciences*, *23*(4), 579-592.

Keelery, S., (2020) Value of women's apparel market in India 2015-2028. Retrieved on 20th April 2020 from https://www.statista.com/statistics/730992/women-s-apparel-market-size-india/

Kerfoot, S., Davies, B., & Ward, P. (2003). Visual merchandising and the creation of discernible retail brands. *International Journal of Retail & Distribution Management*, *31*(2/3), 143.

Kim, J.H., & Lennon, S.J. (2010). Information available on a web site: effects on consumers' shopping outcomes. *Journal of Fashion Marketing and Management*, *14*(2), 247-262.

Kim, J.H., Kim, M., & Lennon, S.J. (2007). Information components of apparel retail web sites: task relevance approach. *Journal of Fashion Marketing and Management*, *11*(4), 494-510.

Kim, S., & Stoel, L. (2004). Apparel retailers: website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, *11*(2), 109-117.

Lee, Z.C.R., & Paul, D. (2012). Customer Perceptions of E-Service Quality in Online Apparel Shopping. *ISSN 1931-0285 CD ISSN 1941-9589 ONLINE*, 629.

Park, C.H., & Kim, Y.G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail & Distribution Management*, *31*(1), 16-29.

Park, E.J., Kim, E.Y., Funches, V.M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research*, *65*(11), 1583-1589.

Park, J.H., & Stoel, L. (2002). Apparel shopping on the Internet, *Journal of Fashion Marketing and Management*, *6*(2), 158-176.

Park, J., Lennon, S.J., & Stoel, L. (2005). On-line product presentation: Effects on mood, perceived risk, and purchase intention. *Psychology & Marketing*, *22*(9), 695-719.

Passyn, K.A., Diriker, M., & Settle, R.B. (2011). Images of online versus store shopping: have the attitudes of men and women, young and old really changed?. *Journal of Business & Economics Research*, *9*(1).

Ranganathan, C., & Ganapathy, S. (2002). Key dimensions of business-to-consumer web sites. *Information & Management*, *39*(6), 457-465.

Sarkar, A. (2011). Impact of utilitarian and hedonic shopping values on individual's perceived benefits and risks in online shopping. *International Management Review*, *7*(1), 58-65.

Varun, B. (2019). 24% of Indians have a smartphone, says Pew study. Retrieved on 26th June 2020 from https://www.thehindu.com/news/national/24-pc-of-indians-have-a-smartphone/article26212864.ece

Willy, K., (2017). The truth about online consumers. Retrieved on 27th June 2020 from https://home.kpmg/xx/en/home/insights/2017/01/the-truth-about-online-consumers.html

Yang, K., & Young, A. P. (2009). The effects of customized site features on internet apparel shopping. *Journal of Fashion Marketing and Management*, *13*(1), 128.