

# Online Store Selection Attributes and Patronage Intentions: An Empirical Analysis of the Indian E-Retailing Industry

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## Abstract

**Objectives:** This research aims to develop a multi-criteria based evaluation and subsequent prioritization of online retail patronage attributes of Indian consumers for improving the performance of the online stores. **Methods/Statistical Analysis:** The relative importance and ranking of online retail patronage intentions of Indian customers were done through a literature review, discussion with experts, and the Analytical Hierarchy Process (AHP) approach. In all, 16 e-retail attributes were identified and further divided into five-factor categories. Then their prioritization was done using AHP approach in the context of the Indian e-retailing industry to overcome the drawbacks of perception based evaluation measures. **Findings:** The empirical results suggest that Indian customers place a very high importance on outcome quality followed by service recovery. The results of the study support the notion that Indian consumers are more utilitarian and are more apprehensive about the risks of online transaction in the context of Indian culture which is predominantly skewed towards uncertainty avoidance. As online retail store managers cannot allocate equal amounts of efforts and resources to each individual online store attributes due to the limitation of resources, the findings of this study will help online retail managers in providing insights into patronizing intentions of Indian customers towards online store attributes. The results of the study also offer Indian retail managers in effective utilization of scarce resources in developing online stores considering the Indian culture and context. **Application/Improvements:** The results will help managers to focus and improve the performance of the online stores based on relative importance and patronage intentions of Indian customers.

**Keywords:** Customer Satisfaction, E-Retailing Industry, Online Retail, Patronage Intention, Store Selection

## 1. Introduction

The exponential growth of Internet in the past decade has influenced the way human's share information and interact within themselves, resulting in transformation and shattering of established business models and creation of new business paradigms. The retail industry has also been impacted by the ever growing commercial influence of the Internet resulting in the emergence of online line shopping or e-retail as one of the fastest growing uses of Internet<sup>1</sup>. Growth in the number of Internet users has

acted as a stimulant in early adoption of the online channel and has created opportunities for its expansion.

With the growth of online shopping and due to low entry barriers, thousands of e-retail sites have emerged offering all kind of goods and services resulting in huge competition between the sites. In order to gain competitive advantage, e-retailers are using various strategies to attract and retain customers. Though e-retailers are making huge investments in web technologies<sup>2</sup> for new customer acquisition and maintenance, the strategic focus of the e-retail strategy had been to gain market

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share by providing incentives to customers through low price, deals, and discounts leading to a significant reduction in their profitability. E-retailers have now realized that it is very difficult to prosper following a low price strategy based solely on the notion of attracting new customers, without putting efforts for retaining the present customers. E-retailers have understood that the key to their success and prosperity is that they are able to sustain the customer's subsequent use of the channel for purchasing a wider variety of products after the customers have initially adopted the channel.

An examination of the literature on the online channel adoption and sustained use shows that numerous models and theories have been proposed for explaining the consumer behaviour towards online shopping<sup>3</sup>. Examined the online channel an innovation and as a potential source of relative advantage for consumer's adoption of the online channel<sup>4</sup>. Applied the Technology Acceptance Model (TAM) and indicated that perceived usefulness and ease of use influence consumer intention to use the channel<sup>5</sup> showed that use of the online channel amplifies the risk associated with a purchase process and identified privacy risk, product risk and financial risk as major barriers to the adoption and subsequent use of the channel<sup>6</sup>. Stated that online shoppers assign different importance to various attributes to patronize an e-retail store<sup>7</sup>. Found that there is the significant correlation between website quality dimensions and loyalty intentions. Further<sup>8</sup> established that product quality has the largest effect followed by low price in influencing the patronage intentions of online shoppers of e-retail stores.

Considering the unique characteristics of e-retail stores, several studies have been undertaken to identify the different attributes online shoppers use to patronize an e-retail store with an objective to find out the core online store attributes. These include: outcome quality, process quality, design, functionality, information, personalization, system availability, fulfilment, brand loyalty, brand awareness, privacy/security, compensation, service recovery, responsiveness and access/ contact<sup>9-12</sup>. As the needs of the customers may be endless and satisfying all those needs may not be always technically and financially viable, therefore capability to grasp the priority of the customer needs would lead to success or failure of the online stores. Further, for optimum resource allocation to individual attributes, it is crucial to determine the priority of the store attributes which would lead to e-retail success and profitability. However, past studies have neglected

this. Hence, there is considerable need for identifying the priority of store attributes for successful understanding of the consumer behaviour towards e-retail store patronage. This will help the e-retail service providers to create the focus on store attributes which meets the consumer needs.

Few studies have identified the influencing role of national culture on consumer behaviour of online user.<sup>13,14</sup> found that culture considerably guides the establishment of priorities accorded to different products resulting in their success and failure. A review of literature shows that there is scant literature on cross-cultural comparison studies in the online context, though the existing literature provide considerable support to the notion that diverse culture may influence consumer perception resulting in different evaluation of e-retail store attributes<sup>15</sup>. However, previous research on e-retail patronage attributes and consumer behaviour mostly rely on theoretical models established in the western contexts. To date there are a limited no of studies relating e-retail patronizing attributes of Indian online shoppers. India is considered an emerging market but in the e-commerce market it is showing great potential. India's e-commerce revenues are projected to increase to US\$ 8.8 billion by 2016 with the CAGR highest among the countries in the Asia Pacific region<sup>16</sup>. The Internet user base in India also growing exponentially and is the third largest in the world behind USA and China and is projected to surpass the user base of USA in 2-3 years<sup>17</sup>. Thus India is poised to emerge as huge online market with online consumption characteristics and patronage behaviour which are quite different from developed countries in the west and emerging economies like China. Thus understanding the Indian consumers' priorities of e-retail attributes would guide Indian managers of e-retail stores to develop their marketing strategies for targeting customers more effectively.

Further, an examination of extant literature in the online context shows that multivariate methods are the most preferred methods among researchers. But these methods are not free from limitations like requirement of large sample size and normal distributions of residuals. Though, statisticians have developed numerous data transformation methods to deal with non-normal distribution but it requires tedious calculations. Also for small samples, multivariate models fail to detect causal relationships with any degree of certainty<sup>18</sup>. On the other hand, due to concerns related to multi co-linearity between

individual attributes, the multiple regression models also often fails to detect the effect of individual attributes on the overall indicator<sup>19</sup>.

The primary objective of the present study is to bridge the gap in literature by using the analytical hierarchy process to determine the relative priority of e-retail attributes of Indian consumers. For achieving this purpose, the objectives of the research are:

- To Examine and Classify the e-Retail Store Patronage Attributes of Indian Consumers.
- To develop priorities of the e-retail store patronage attributes of Indian customers so that e-retail stores can assess the attributes and re-allocate resources to improve their success and profitability.

The remaining part of the paper is organized as follows. A review of literature and discussion is presented in the next section on the identification and classification of e-retail store attributes and national culture, followed by data collection and methodology. Finally, discussion and analysis are presented and followed by limitations of the study and future research directions.

A thorough literature review was conducted to identify the service selection attributes in online retail. The basic focus of the literature review was to identify those attributes of e-retail which affect Indian consumers' e-retail patronage intentions. Based on the review of literature and after active consultation with experts and academicians in the Indian e-retail industry, the present study identified 16 first-order e-retail attributes that can directly or indirectly influence the Indian consumer's decision making process in selecting and patronizing a particular e-store. After a critical review of the 16 first-orders e-retail attributes, they were grouped into five second- order dimensions or criteria: website design, e-retail store attributes, outcome quality, and customer service and e-retail store reputation. Table 1 shows some of the selected literature references used in the study.

## 1.1 Identification of the Five Second-Order Dimensions or Criteria and 16 First-Orders Attributes in Selection of E-Retail Store

### 1.1.1 Website Design

In the online context, the website becomes the interface through which customer interacts with the service

providers for receiving the service. The design of a website thus becomes one of the facets of the online line business, through which the service providers makes an attempt to attract and create an interest in the minds of the customer for further sustainability and retention<sup>20</sup>. The website design impacts the efficiency of the site. Efficiency of a website in the online context refers to the ease with customers can find relevant information and the speed of access of the website. A review of literature on e-service quality dimensions shows that website design has been used by various researchers as a dimension through which e-service quality is measured and evaluated<sup>2,21</sup>. Previous studies have demonstrated that the website design can play a dominant role in influencing consumer behaviour towards online retail stores, customer satisfaction, attitude of customers, on site revisit intentions and store loyalty. There are three service selection dimensions in this factor category.

**Table 1.** E-retail attributes and their selected references as reported in the literature

Author(s)	E-retail attributes
9	Outcome quality, process quality, service recovery
10	Design, functionality, privacy, information, reliability, access/contact, responsiveness
11	Efficiency, reliability, fulfillment, privacy/safety, responsiveness, compensation, contact, brand loyalty, brand awareness
27	Enjoyment, risk, relative advantage, e-tail store essentials, e-tail incentives
45	Efficiency, fulfilment, system availability, responsiveness, compensation, contact
59	Efficiency, system availability, fulfilment, security, responsiveness
10	Efficiency, system availability, fulfilment, privacy, enjoyment
61	Efficiency, delivery, privacy, speed, system availability, reliability
30	Order accuracy, order condition, timeliness, ease of use, privacy, design, information accuracy, functionality, information fairness, procedural fairness, outcome fairness
28	Efficiency, fulfilment, system availability, privacy, responsiveness, contact, personalization, information, graphic style
40	Efficiency, system availability, fulfilment, privacy

First, ease of use dimension contains website design attributes which increase the functional performance of the website like ease of navigation, intuitive navigation, information search, personalization of information, product selection and order processing. It is not only crucial in facilitating the consumer decision making process but also succeeds in increasing the loyalty intention of the customer towards a particular e-retail site<sup>7</sup>. Prior research have also shown that, ease of use plays a very important role in reducing the perceived risk associated in transacting or using an online service<sup>22</sup> apart from generating favourable consumer behaviour, positive attitude and satisfaction towards retailing websites<sup>23,24</sup>.

Second, functionality leads to higher evaluation of the e-retail website and increased customer satisfaction. Functionality dimension refers to the technical capability and ability of the web site and is one of the basic requirement for any website<sup>10,25</sup>. It includes features like (24\*7) availability, free from invalid and broken links, faster browsing and download, robust and reliable under peak traffic, provides reliable product information, robust processing of customer orders and payments<sup>12</sup>. A reliable and robust website is necessary as it provides customers with a sense of empowerment and fulfils the hedonic and utilitarian shopping motives<sup>26</sup>. The functional performance of the website facilitates the consumer decision-making process and thus could be one of the most influencing factors in customers' patronage of the e-retailsite<sup>27</sup>.

Third, information accuracy leads to improved evaluation of e-service quality. Prior studies have demonstrated that availability of information and the accuracy of information are one of the key determinants of e-service-quality<sup>28,29</sup>. Information accuracy in the online context refers to the relevancy and brevity of information about the product and services provided by the website<sup>30</sup>. Websites which stay current with frequently updated news and promotions offers receives more favourable responses from online users<sup>24</sup>.

### 1.1.2 E-retail Store Attributes

E-retail store attributes are the supportive and critical components for development and sustaining the momentum of shoppers to shop online. Moreover, the unique features the e-retail stores provide are traditionally not available via the offline channel.

A review of literature on retail patronage in the physical store concept reveals that that the selection of a store

and frequency of visiting a particular store are influenced by store attributes like product variety, product quality, convenient physical location, ample parking space and store atmosphere<sup>8</sup>. Another stream of research has used the concept of perceived risk to explain the consumer decision making process in adoption and subsequent use of a particular shopping channel. The predominant view of this research stream is that, the consumers perceive a higher degree of risk in using an online channel because the online channel results in magnification of some of the risks and uncertainties already present in the purchase process. So the store attributes which reduces the shoppers perceived risk could lead to increased use and adoption of the online channel<sup>6</sup>. Suggest that in patronizing an e-retail store, online shoppers may attach different importance to store attributes than in a physical context. There are five service selection dimensions under this factor category.

First, discount and offers are incentives offered by the e-retail to motivate and stimulate the consumers towards online stores. The incentives provided by the e-retail stores can help in reducing the perceived risks of the online channel, as consumers are motivated to evaluate the perceived benefits of the incentives with the perceived risks associated with the outcome of the purchase and its consequences<sup>27</sup>. If the perceived benefits of the incentives are more than the perceived risks, consumer beliefs about online shopping can be affected by the e-retailincentives<sup>31</sup>. The incentives offered by e-retail through discounts and offers, can also play a positive role in fulfilling the hedonic motives of the consumers who are basically deal seekers by adding some excitement to their shopping experience<sup>27</sup>. In addition, numerous empirical studies in traditional retail formats have confirmed that retailers often use incentives as a customer retention strategy<sup>32</sup> but there is paucity of empirical studies which have examined the impact of incentives on customer sustained use and loyalty intentions<sup>33</sup>.

Second, return and exchange policy can reduce the elevated risk customers perceive in an online purchase. To reduce the risk, customer soften engage themselves in extensive information search and limit their usage of the online channel towards risk averse activities like searching for information about products, comparing product alternatives, or product choice. A well-defined return and exchange policy can provide assurance to the customers' and reduce their anxiety towards perceived difficulty of product return and the expenses involved in return.

Third, product selection provides consumers with the flexibility and control to access the products they want. The assortment of goods the e-retail sites provides, gives online shoppers with greater access to variety compared to offline stores. In addition, the customers often use the online source to find inventory when local offline stores run out of stock. The e-retail sites provide customers with the convenience, a sense of freedom and the ability to find desired information.

Fourth, price and price comparison are factors related to monetary costs of acquisition and known to affect and bolster consumers' retail patronage significantly<sup>27</sup>.<sup>8</sup> examined and established through a study that the second most important factor effecting customers retail patronage after product quality was low price.

Fifth, privacy/security refer to customer beliefs about the safety and protection of customer information from intrusion, payment security and the e-retail sites not sharing private information with other companies without the consent of the customers<sup>30</sup>. Transaction security, protection of privacy and truthfulness are considered essential to overcome the risk and concerns of online shopping<sup>34,35</sup> and play an important role in supplementing customer anxiety and boost customer confidence<sup>36</sup>. Prior research have shown that without fostering online trust it will be difficult for e-retail site to instil consumers to part with personal information, increase their spending, repurchase and use their credit card for purchase<sup>24,37</sup>. Numerous studies on e-service quality lend support for privacy / security as an important dimension of e-service quality<sup>10</sup>. In addition<sup>38</sup> found that privacy dimension plays a significant role in increasing customer satisfaction.

### 1.1.3 Outcome Quality

Outcome quality includes those factors that capture and reflect the unique dimensions of the service experience and play a very influencing role in the overall formation and evaluation of service quality delivered by the e-retail sites. Failure to deliver the customers desired outcome can significantly effect in the evaluation of electronic service quality and undermine the effect of website design and e-retail attributes<sup>30</sup>. There are three service selection dimensions in this category.

First, order accuracy is an important dimension of service selection. A robust and reliable online order processing system is essential to meet the exact specification of the customer and refers to the accurate processing

of customer orders according to the specified place of receipt, quantity and price<sup>30</sup>.

Second, product completeness is important for service selection and emphasizes conformance to customer requirements by delivering high quality, error-free products within an expected amount of time<sup>30,9</sup>.

Third, delivery accuracy is crucial for increasing user satisfaction and addresses the customer's needs of receiving the product at the right location, in right quantity, right quality and at the right agreed price<sup>9,39</sup>.

### 1.1.4 Service Recovery

Service recovery dimension involves those factors which provides e-retail sites a chance to rectify the mistakes and correct the damage which was inflicted on the relationship due to service failures or mistakes<sup>30,40</sup>. The manner in which the e-retail site handles recovery, take effective recovery measures and the assurance the site provides to the customers, plays an influential role in the overall evaluation of e-service quality. By investigating the service failures of online retailers, researchers have confirmed that a satisfactory level of recovery leads to positive behavioural intentions towards the site<sup>41</sup> and strengthens the intentions of the customer towards revisit for repeat purchase<sup>42</sup>. Moreover, prior research has empirically verified that customer e-satisfaction and e-loyalty are also positively influenced by service recovery<sup>42-44</sup>. There are three service selection dimensions in this category.

First, responsiveness refers to the ability, extemporaneity and commitment of the of the service provider to respond quickly and provide help whenever there is complaint, problem or query from the customer<sup>40</sup>. In addition, responsiveness also refers to well defined and fair policies and procedures for handling of complaints, unbiased return policy, purchaser's right and the time limit for problem resolution. Numerous studies on e-service quality have shown that responsiveness have a high impact on e-service quality evaluation and is an important dimension in e-service measurement scales<sup>28,45</sup>. The responsiveness creates an impression in the minds of the customer about the site, strongly impacts the satisfaction level of the customers<sup>46</sup> and also influences their loyalty intentions<sup>47</sup>.

Second, service guarantee/compensation refers to the compensation the site offers for failures or problems<sup>12</sup>. Compensating the customer for failures or problems assures the customers that their interests will be protected



and leads to improved customer confidence towards the site. Perceived risk is amplified in an online setting as buyers are separated from the merchandise. Service guarantee is often used to mitigate the perceived risk experienced by promising the customer for a level of service and remunerating the customer for the deficiency of service<sup>48</sup>.

Third, access/contact refers to the capability of the online store to provide cooperating and interactive technology support, which allows the customers to communicate live with the customer service representatives online or through a telecommunication medium<sup>30,49</sup>. In addition access/contact also includes clearly display of address, phone numbers, e-mail address, online tutorials and Frequently Asked Questions (FAQs) so that customer can interact with the online store, each and every time they need help for resolving a problem or concern. Access or contact leads to positive evaluation of overall service quality in the online context and can have a profound impact on satisfaction<sup>35</sup>.

### 1.1.5 E-retail Store Reputation

E-retail store reputation is an accumulated pointer of the customers' perception of value provided by the site and the service quality<sup>12</sup>. It emphasizes the belief of the sites stated intentions and is achieved by executing a long term process of excellent and consistent performance and actions. In addition, reputation is an aggregated indicator of firms brand equity. From a consumer's perspective, a strong brand adds value to a product by enhancing the consumers' ability to interpret process, compare and store information and conveys a sense of quality<sup>50</sup>. A strong brand can play a very important role in reducing consumers perceived risk and can reinforce trust because of consumers inability to access or evaluate the offering before making a purchase<sup>51</sup>. From the e-retail perspective, higher brand equity can help in effectively differentiating its offerings from its competitors<sup>52,53</sup>. There are two service selection dimensions in this category.

First, brand image as defined by<sup>50</sup> is the "set of brand associations in some meaningful way". Brand image is usually formed by multiple experiences or exposure to the brand by receiving high quality service. This association builds a level of strength, favourability and uniqueness towards the brand, leading customers to choose a specific brand over other competing brands.

Second, brand awareness as defined by<sup>50</sup> is the "strength of the brand's presence in the consumer mind".

High brand awareness can provide the potential buyer with the capability to identify or evoke a brand in a particular product category. Easy recognition and prior knowledge of a website brand can help the customer in faster product decision because of reduced information search costs.

## 1.2 Culture Effect on Prioritization of E-Retail Attributes

Culture can play a dominating and influencing role in the development of different decision-making styles and shopping orientation in different cultural contexts and countries, resulting in establishment of different prioritization of product and service attribute.<sup>15</sup> In this context, some researchers applied the concept of culture to understand the orientation of customers in e-retailing in different cultural contexts and countries.<sup>20</sup> Found that website design, security features of the website, privacy policy of the website and information content the website provides significantly influence the US consumers' perception towards e-retailing.<sup>54</sup> Found that design characteristics of the website, reliability, customer service of the website, privacy policy of the website was the most important attributes valued by online shoppers from New Zealand.<sup>55</sup> Examined and found that Indian online shoppers considered online shopping convenience, e-retail store environment, recreational aspect of online shopping and website customer service as the most important attributes which influence their decision to shop online.

## 2. Data Collection and Methodology

### 2.1 Data Collection

The survey instrument was divided into two main sections. The first section consisted of five questions related to the demographic profile of the respondents. The second section consisted of questions on AHP-based pair-wise comparisons seeking the judgement of the respondents regarding the importance of e-retail attributes using the standard.

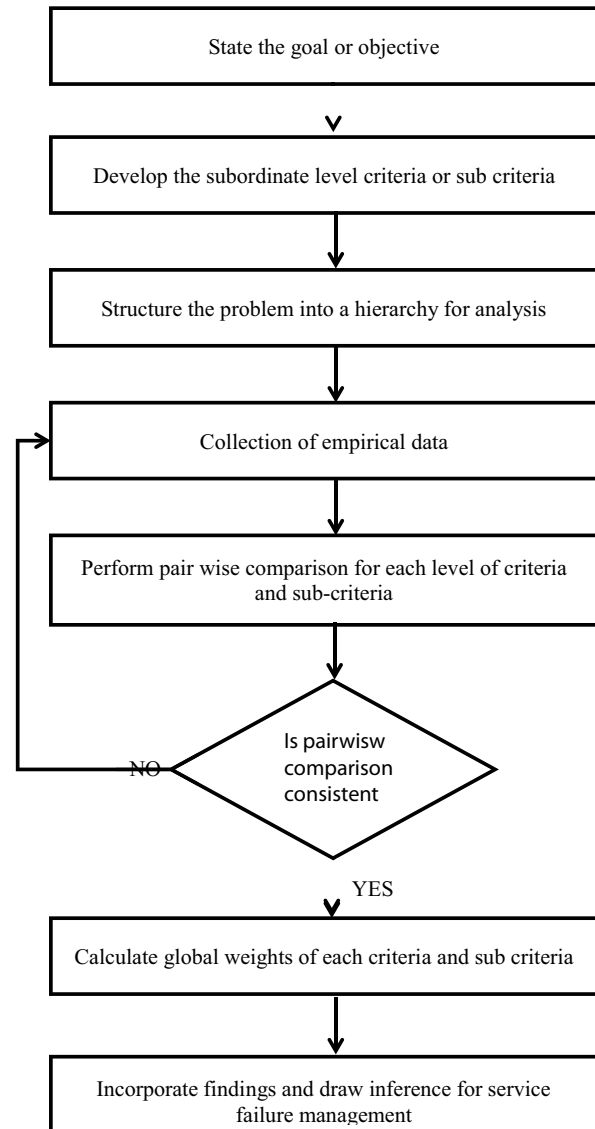
Two hundred eighty self-administered questionnaires were distributed between April and August 2016 aimed at understanding the priorities of e-retail attributes of Indian consumers' which influence their e-retail

patronage intentions. Convenience sampling was used to collect data from four different cities in India, viz. Delhi, Noida, Ghaziabad and Gurgaon resulting in 223 usable responses. In order to get a random mix of sample and comprehensive response, respondents were contacted at offices, colleges, business centers and homes during office hours. The response rate (79.6%) was relatively high because researchers administered the questionnaire to only those who had prior experience of online shopping, responded positively to the survey and adequate time was given to complete the survey. For AHP calculations, the minimum sample size was calculated to ensure that the derived results can be generalized. In general the literature suggests the adequate sample size for AHP calculations should be at least five times the no of indicators i.e. is  $(16 * 5) 80$  observations<sup>56,57</sup>. Thus, the sample size of 223 was considered adequate for reasonable results. The sampling distributions of the respondents are depicted in Table 2. The gender profile of respondents consists of (57.4%) males and (42.6%) females. The percentage of respondents holding graduate degree was (77.2%). Among all respondents, the total percentage of respondents in the age group of 18-24 was (28.2%), 25-30 was (32.7%) and 31-35 was (12.1%).

**Table 2.** Distribution of respondents on the basis of age, gender, education and occupation

Demographics	No of Respondents	Percentage
Age		
18-24	63	28.2%
25-30	73	32.7%
31-35	27	12.1%
36-40	29	13.0%
41-45	15	6.72%
46-50	10	4.5%
Above 50	06	2.6%
Gender		
Male	128	57.4%
Female	95	42.6%
Education		
Graduate Degree	172	77.2%
Post-graduate Degree	51	22.8%
Occupation		

Student	46	20.6%
Company Executive	83	37.2%
Self-employed	34	15.2%
Businessman	12	5.4%
Small Business/ Trader	17	7.6%
Housewife	23	10.3%
Others	08	3.5%



**Figure 1.** AHP process flow chart.

## 2.2 Methodology

AHP methodology was adopted for prioritizing the e-retail attributes of Indian customers of e-retail stores.

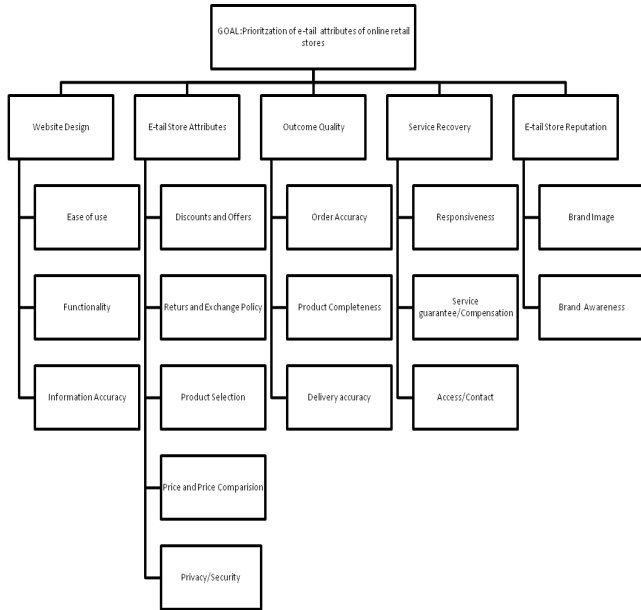
A three step approach was applied for implementation of the AHP approach. First step consisted of decomposing and organizing the critical aspects of the multi-criteria decision making problem into a hierarchical structure of different levels constituting the goal or objective, criteria, sub-criteria and alternatives. The second step consists of developing the priorities within each level of the hierar-

chy among all the criteria and sub-criteria by comparing each criterion in the corresponding level through pair wise comparisons. The third step consists of generating the ranks of the alternatives on the basis of the overall priorities of the decision makers by using the Eigen value method. The process flow chart for implementation of the AHP approach is presented in Figure 1.

**Table 3.** Global weights and Local weights of the e-tail attributes.

Hierarchy level	Factor categories/criteria and e-tail attributes sub-categories/sub-criteria	Local	Weights	Global	Weights
		Weights	Ranking	Weights	Ranking
Level 2	<i>With respect to e-tail attributes</i>				
	Website Design	0.1607	4	0.1607	4
	E-tail store attributes	0.1687	3	0.1687	3
	Outcome Quality	0.2777	1	0.2777	1
	Service Recovery	0.2464	5	0.2464	2
	E-tail store reputation	0.1466	5	0.1466	5
	Sum	1.00		1.00	
	Ease of use	0.0420	1	0.0681	6
	Functionality	0.3839	2	0.0617	8
	Information accuracy	0.1921	3	0.0309	14
	Sum	1.00		1.00	
	<i>With respect to e-tail store attributes</i>				
	Discounts and offers	0.2434	2	0.0411	12
	Return and exchange policy	0.1361	5	0.0230	13
	Product selection	0.2658	1	0.0448	10
	Price and price comparisons	0.1535	4	0.0259	15
	Privacy/security	0.2012	3	0.0339	13
	Sum	1.00		1.00	
	<i>With respect to outcome quality</i>				
	Order accuracy	0.1827	3	0.0507	9
	Product completeness	0.4151	1	0.1152	1
	Delivery accuracy	0.4022	2	0.1117	2
	Sum	1.00		1.00	
	<i>With respect to Service Recovery</i>				
	Responsiveness	0.2760	3	0.0680	7
	Service guarantee/compensation	0.4403	1	0.1085	3
	Access/contact	0.2838	2	0.0699	5
	<i>With respect to e-tail store reputation</i>				
	Brand image	0.7063	1	0.1035	4
	Brand awareness	0.2937	2	0.0430	11
	Sum	1.00		1.00	





**Figure 2:** Modelling the hierarchy structure of e-tail store selection attributes.

The steps of the AHP methodology are detailed as follows:

- Step 1: State the objective
- Step 2: Develop the subordinate level criteria or sub-criteria
- Step 3: Structure the problem into a hierarchy for analysis
- Step 4: Collect empirical data for pair-wise comparison
- Step 5: Perform pair-wise comparison between each level of criteria and sub-criteria
- Step 6: Checking for consistency in the pair wise comparison
- Step 7: Compute the global weights of each criteria and sub-criteria
- Step 8: Repeat steps 5 and 6 for all given criteria.

The levels of the hierarchy constituting the goal, criteria and sub –criteria were developed based on the framework suggested by<sup>58</sup> and presented in Figure 2. Figure 2 depicts the three-level decision hierarchy consisting of the goal, criteria and sub-criteria developed for facilitating this study. The top level of the hierarchy consists of the goal of the study i.e. prioritize the e-retail attributes for e-retail store patronage of Indian customers. The five main criteria of e-retail stores which influence

the customer e-retail store patronage intentions namely are depicted at level 2 of the hierarchy. The store attributes relevant to level 3 sub-criteria are listed below the relevant criteria of store attributes at level 2.

With the use of Table 4, the pair-wise comparison matrix for the five factor categories (criteria is calculated). Table 5-12 depicts the steps 5-8 of the calculations performed following the AHP approach.

**Table 4.** Scale for performing pair-wise comparison.

Rating Scale	Preference of verbal judgments
$a^j_i = 1$	The two parameters are equally important
3	Parameter i is weakly more important than parameter j
5	Parameter i is strongly more important than parameter j
7	Parameter i is very strongly more important than parameter j
9	Parameter i is absolutely more important than parameter j
2,4,6,8	Intermediate value between the two adjacent judgments

Source: Saaty (1988)

**Table 5.** Priority weights of the e-tail service selection criteria.

Factor categories/ Criteria	Priority Weights
Website Design	0.1607
E-tail store attributes	0.1687
Outcome Quality	0.2777
Service Recovery	0.2464
E-tail Store Reputation	0.1466
Sum	1.00

**Table 6.** Consistency Ratio (CR).

Factor categories/ Criteria	$\delta$	Eigenvector ( $\lambda$ )
Website Design	0.8275	5.1497
E-tail store attributes	0.8578	5.0854
Outcome Quality	1.4276	5.1417
Service Recovery	1.2500	5.1011
E-tail Store Reputation	0.7475	5.1005
		$\lambda_{max} = 5.1497$

**Table 7.** RI values for different matrix orders.

Order of the matrix	1	2	3	4	5	6	7
Random Index (RI)	0	0	0.58	0.90	1.12	1.24	1.32

Source: Saaty (1980)

**Table 8.** Pair-wise comparison of the three e-tail store selection sub-criteria with respect to website design.

e-tail store selection sub-criteria	Ease of use	Functionality	Information accuracy	CR=0.0902, CI=0.0523 priority weight
Ease of use	0.4406	0.5196	0.3119	0.4240
Functionality	0.2977	0.3511	0.5028	0.3839
Information accuracy	0.2617	0.1294	0.1853	0.1921

Maximum eigenvalue  $\lambda_{max} = 3.1046$

### 3. Discussions and Analysis

This research is an attempt to understand the Indian consumer’s decision making process in e-retail selection and the priorities they place on different attributes in patronizing e-retail stores. Because the key service selection dimensions may not be universal leading to variations across countries and cultures, the results of the study could be used by e-retail store managers for developing India focused strategies by taking into consideration the unique attributes of Indian customers.

The present study considered five factors namely website design, e-retail store attributes, outcome quality, service recovery and e-retail reputation which could play an influencing role developing priorities for Indian customers e-retail patronage intentions. The weights of the factors are developed using AHP and the results are presented in Table 3.

**Table 9.** Pair-wise comparison of the five e-tail store selection sub-criteria with respect to e-tail store attributes

e-tail store selection sub-criteria	Discounts and offers	Return and exchange policy	Product selection	Price and price comparisons	Privacy/ security	CR=0.0367, CI=0.0411 priority weight
Discounts and offers	0.2214	0.2204	0.2302	0.2820	0.2629	0.2434
Return and exchange policy	0.1433	0.1427	0.1316	0.1435	0.1195	0.1361
Product selection	0.3353	0.2568	0.2631	0.1567	0.3171	0.2658
Price and price comparisons	0.1230	0.1558	0.2193	0.1567	0.1127	0.1535
Privacy/ security	0.1771	0.2242	0.1558	0.2611	0.1878	0.2012

Maximum eigenvalue  $\lambda_{max} = 5.1643$

**Table 10.** Pair-wise comparison of the three e-tail store selection sub-criteria with respect to outcome quality

e-tail store selection sub-criteria	Order Accuracy	Product completeness	Delivery accuracy	CR=0.0618, CI=0.358 priority weight
Order accuracy	0.1770	0.2380	0.1330	0.1800
Product completeness	0.3220	0.4320	0.4910	0.4200
Delivery accuracy	0.5000	0.3300	0.3760	0.4000

Maximum eigenvalue  $\lambda_{max} = 3.0717$

**Table 11.** Pair-wise comparison of the three e-tail store selection sub-criteria with respect to service recovery

e-tail store selection sub-criteria	Responsiveness	Service guarantee/compensation	Access/contact	CR=0.0795, CI=0.0413 priority weight
Responsiveness	0.2797	0.3469	0.2013	0.2760
Service guarantee/compensation	0.3515	0.4360	0.5333	0.4403
Access/contact	0.3688	0.2170	0.2654	0.2838

Maximum eigenvalue  $\lambda_{\max} = 3.0827$

The results of the main factors indicate that 'outcome quality' is the most important factor considered by Indian customers in selection of online stores and their e-retail patronage. The results clearly indicate that Indian customers are more goal-oriented in their shopping orientation and try to derive 'utilitarian' value through the e-retail transaction compared to their cost implications. Delivery of high quality products and services will lead to increased satisfaction and lead to patronage intentions of Indian customers. The results of the study support prior findings that outcome quality is the most influencing factor resulting in customer satisfaction<sup>30</sup>. Among the three e-retail attributes related to 'outcome quality', 'product completeness' is the most important attribute, followed by 'delivery accuracy' and 'order accuracy'. Also the empirical findings suggest that e-retailers have to design robust service delivery systems for increasing customer's loyalty because of Indian culture of uncertainty avoidance.

**Table 12.** Pair-wise comparison of the two sub-criteria with respect to e-tail store reputation

Service failure sub-criteria	Brand image	Brand awareness	CR=0.0000, CI=0.0000 priority weight
Brand image	0.7063	.7063	0.71
Brand awareness	0.2937	0.2937	0.29

Maximum eigenvalue  $\lambda_{\max} = 2.0000$

The results indicate that the second most important factor is 'service recovery' followed by 'e-retail store attributes', 'website design', while 'e-retail store reputation' as

the least important criteria. The Indian customers prioritizing 'service recovery' as the second most important factor is indicative of the fact that online line transaction make Indian customers apprehensive and they perceive a higher level of risk in online transactions. Indian people are considered more conservative and risk averse than their western counterparts and the Indian culture is characterized by high uncertainty avoidance culture resulting in higher perception of risk. So those e-retail stores, who promise high level of assurance and are capable of fulfilling those assurances, will be detrimental in decreasing the perceived risk of online shopping of Indian customers. Pre-emptive service recovery after failure, service guarantee, sincere and robust communication and understanding customer's recovery need can play an influencing role in building Indian customer confidence after service failure. Among the three e-retail attributes related to 'service recovery', 'service guarantee/compensation' is the most important concern followed by 'access/contact' and 'responsiveness'.

The Indian customers considered 'e-retail store attributes' as the third most important factor in their e-retail patronage intentions compared to 'website design' which was the fourth important factor. Among the five e-retail attributes related to 'e-retail store attributes', 'product selection' is the prime consideration followed by 'discount and offers'. The results clearly shows that Indian consumers are value seekers and the online channel provide them with significant advantage for continuous use compared to other shopping channels. Indian customers are strongly motivated by the relative advantage the online shopping medium provides them in terms of wide assortment of products and convenience. The Indian customers are deal seekers and the online channel provides them with incentives through various discounts, offers, promotions which also help them fulfil the 'hedonic' shopping motives.

The Indian customers considered 'e-retail store reputation' as the least important influencing factor in their e-retail patronage intentions. The finding suggests Indian customers are not much convinced by the e-retail store reputation in their e-retail patronage intentions and are most likely to choose an e-retail store who delivers high quality service compared to a store which has high reputation. In other words, e-retail stores should channelize their efforts in improving and delivering better service experience instead of investing their efforts in high pitch promotional campaigns.

The global weights for the 16 sub-criteria or e-retail store selection attributes, gave some mixed results. This is apparent because of aggregation of local weights of e-retail store service selection sub-criteria with the global weights of the store selection dimensions (criteria). Based on global weights, the consumers ranked 'product completeness' with the highest weight. This implies that continuous efforts have to be made to develop conformance to customer requirements by delivering high quality and error-free products. The second most important store selection attribute namely 'delivery accuracy' is also attributable to the 'outcome quality' dimension.

Considering the e-retail store service selection sub-criteria, Indian customers accorded the third most important e-retail attribute as 'service guarantee/compensation' in their e-retail patronage, suggests that Indian customers are still apprehensive with the risks of online shopping. Compensating customers for failures and problems assures them, that their interests will be protected leading to e-retail patronage.

Indian customers accord 'brand awareness' as the fourth important e-retail attribute suggesting that Indian online shoppers are more utilitarian in nature and a strong brand allows them to lower their search efforts for products. As Indians belong to a high uncertainty avoidance culture, a strong brand will reinforce Indian consumers' confidence towards online shopping and reduced their perceived risk.

## 4. Limitations and Future Research

The study has various limitations. First, the present focus of the present study was to develop conceptual dimensions of e-retail store attributes Indian customers use in their e-retail patronage intentions. As e-retail store attributes of various traditional and modern online retail industries may be distinct and different, care should be taken in generalizing the results and their application in various industries. Future research may extend the current study to various online retail industries to identify the attributes specific to those industries for optimum allocation of resources. Second, the study used convenient sampling procedure in selecting the sample so the results of the study cannot be generalized and applied in practice without comprehensive validation through a large sample study. Third, the difference of culture in vari-

ous countries may become a deterrent in generalizing the results in other countries. Future research should attempt to include more countries in their frame of reference to make the results more generalizable in- different cultural settings.

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