MEASURING PERCEIVED RISK FOR MARKET: SEGMENTATION FOR E-RETAIL FORMAT IN INDIA

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Abstract

The paper addresses to measure the perceived risk for people shopping in the e-retail arena. The measurement of perceived risk enables to segment the customers not in terms of demographics or any other criteria, but solely on basis of perceived risk. Perceived risk here means the feeling of uncertainness about the consequence/repercussions of a purchase. We observed the shopping criteria for a limited number of product categories shopped online by majority of the consumers. We conducted the research in two parts – Exploratory Research (secondary research, depth interviews, and projective tests) and Descriptive Research (survey). The results indicate the segmentation on the basis of perceived risk for apparel and electronic categories for Tier 1, 2 and 3 cities. The findings can be used as a starting point for targeting people whose perceived risk is low irrespective of their demographics, the marketing strategies can be formulated on the same lines as well.

Introduction

The online retail is just 17% of the e-commerce industry. After much penetration in the Tier-1 cities, many e-commerce companies are looking to penetrate the Tier-2 cities. Thought the buying behavior for both the type of customers is different. Still, the online retailers have been targeting customers according to the difference in the characteristics of the customers arising from their geographic location and demographics. But it has been noted not all customers targeted at the tier – 1 city are purchasing products online. Similarly, not all customers at tier-3 city are not purchasing online. This is because of personal differences among the customers and how they perceive the online shopping process. When this is studied, topic of perceived risk uncovers, which means that some people find different types of risks when they shop online. There are different types of perceived risk as defined in next section.

Types of Perceived Risks

A perceived risk may be different for different consumers. There are in total 11 types of perceived risks identified as described below.

Time Risk

When the customer feels that, there would be loss of time that is not worth, its Time risk. In online shopping it may be, loss of time in browsing and searching through different products, brands, offers. Similarly, for brick and mortar shopping, travelling time may pose a risk.

Price Risk

When the customer feels that, he/she would get a particular product at price which is not worth, its Price risk. In online shopping, the prices may be lower for brands whose prices may be higher elsewhere thus leading to low price risk.

Quality/Performance Risk

When the customer feels that a certain product (that he/she is about to buy) may not perform as designed or may not be of certain quality desired, its quality/performance risk. This type of risk may increase in online shopping as there is no touch and feel factor involved. Even brick and mortar poses such risks related to specific product categories such as electronics.

Social Risk/Psychological Risk

When the customer feels that there would loss in his/her social status and other people in his/her social group may not accept them if they buy a certain product/service, its social risk. For example, one does not disclose the brand/source of the product knowing that his/her peers have different opinions about and may not appreciate him/her.

Credibility Risk/Source Risk

When the customer is uncertain about the retailer from whom he/she is buying i.e. trust and reliability are questionable, it gives rise to credibility risk. For example, one who buys products from a shop from where the entire family buys for ages then there the credibility risk is least or absent.

Delivery Risk

When the customer is skeptical about the delivery of the product bought i.e. he may fear that the product delivered may be damaged or the incorrect order has been delivered, its delivery risk. This is supposed to be more specific in online retail shopping.

Information Risk

When the customer feels that the information provided about the product by the retailer is fraud or incomplete, it leads to information risk as he/she is risking buying the product when the information was not apt or as much as required. This may happen in cases of small format retail stores or online retail.

Financial Risk

When the customer feels that by buying a certain product there is a possibility of monetary loss then it is a financial risk. It may arise due to online payment system, as there is no physical transfer of cash.

Process Risk

When the customer feels that the process of shopping (online/brick and mortar) is complex or not worth when buying a certain product, it leads to process risk. This happens usually when in search of a single product, one browses or roams about to find it. The process gets tiresome, but this is the risk customer takes and is called the process risk

Physical Risk

When the customer risks his/her health for searching/buying a product, that risk is called health risk. It may happen in case of online shopping where customers strains his/her eye while sitting in front of the computer. It may also happen otherwise when any customer who may suffer from illness (say asthma) may risk his/her health in order to find a suitable product.

Post Service Risk

When the customer feels that the after sales service would not be worth or would not be delivered as promised, it gives rise to post service risk. This usually happens in case where customers buy electronic items.

The first nine risks mentioned above have been analyzed in the paper through a survey and extensive exploratory research with sample set from TIER 1/TIER 2/TIER3 cities in India. The risks have been mapped with the product categories sold online to find out a match for risks and product category.

Product Categories

There are numerous product categories which are bought online. The following Exhibit-1 explains the product categories which are studied and kept in consideration.

Product Category	Definition
Apparels	It includes clothing wear of all ages (men, women and kids) for all occasions
Electronic Items	It includes mobile phones, camera, laptops, home appliances etc.
Books	It may include both fiction and non-fiction books by various authors
Grocery	It includes fruits, vegetables, organic food etc.
Accessories	It includes sports (racquets, bats and accessories), music (guitar), travel (backpack) and other accessories products.
Beauty and Health	It includes cosmetic products of various brands and other health products
Home décor and Furnishing	It includes products like curtains, wall decors and other furniture products

Exhibit 1: Product Categories studied bought online

Methodology

The methodology to understand the perceived risk in the online shoppers is divided into 2 parts – Exploratory Research and Descriptive Research. The following section describes the various methods adopted.

Exploratory Research Design

The intention to adopt this method is to analyze the situation from the view of achieving both first hand and second hand information. The following sections explain three types of researches done.

Secondary Data Analysis

A number of research papers were studied to understand the amount of work done for perceived risk and what else could be done after. The secondary literature review helped us redefine perceived risk and differentiate it with how it is used in other sciences except the marketing research.[i] Perceived risk in consumer research is measured through abstraction measures, intermediate measures and low level measures.[ii] The consumer follows a risk handling activity which he does through information gathering and searches until the overall risk which maybe specific product risk or product class risk is lower than the acceptable risk. [iii]

The correlation between risk and brand personality were studied using anxiety measures, self-esteem, rigidity and risk taking. [iv]

Depth Interviews

Depth interviews helps to extract details and perception of the respondent. The intention here was to understand the reasoning and perception about online shopping. The interviewers were from TIER2 and TIER 3 cities and the insights gained helped us frame the hypothesis and validate it.

Projective Tests

Projective techniques is a method to discover the beliefs, feelings and attitudes of a customer which may not be possible to uncover otherwise i.e. through survey or any other technique. This was required as everyone has an opinion about online shopping but fails to reason it when asked. There could be some hidden apprehensions which may be exposed through such tests. The test revealed that electronics and apparel categories were the prominent ones and hence these two categories were tested.

Descriptive Research Design

A survey was floated to understand the demographics of the customer, to get the priority of the product category bought by them online and what type of risks do they identify. The structure of the survey is indicated alongside. As it is clear from the flowchart, the survey had two parts separated by the question of having shopped online or not.
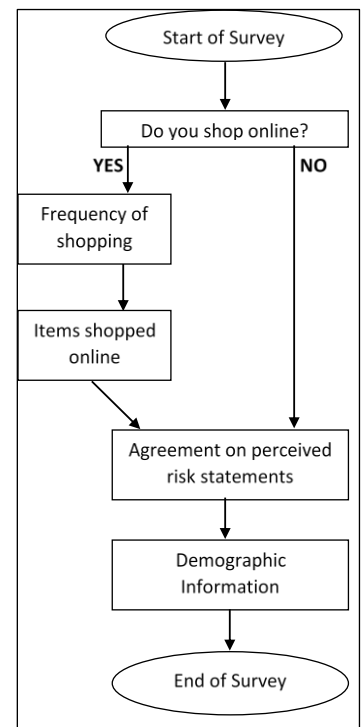

Exhibit 2: Survey Questionnaire Flowchart

Survey Results - Demographics

A total of 81 respondents filled in the survey from all parts of the country. The details about which are shown below in the exhibits.

Gender	Response	Percentage
Male	50	62%
Female	31	38%
Total	81	100%

Exhibit 3: Survey Responses - Gender Distribution

City	%	Responses
Tier 1	40%	32
Tier 2	46%	37
Tier 3	15%	12
Total	100%	81

Exhibit 4: Survey Responses - Age Distribution

Age	%	Response
18-21	6%	5
22-25	63%	51
26-30	21%	17
30+	10%	8
Total	100%	81

Exhibit 5: Survey Geographic Responses – Distribution

Items you shop online	Response
Apparels	48
Electronic items	52
Books	41
Grocery	7
Accessories (Sports, music, travel, music, others)	38
Beauty and Health	7
Home decor and furnishing	11

Exhibit 6: Survey Responses - Product Category purchase trend

Factor Analysis

Factor Analysis conducted to determine the major risk components found in the Tier – 1, 2 and 3 cities. However, factor analysis for Tier 3 cities could not be performed since the number of respondents from Tier 3 cities were less than 30.

The following exhibit shows the result in the component matrix.

Rotated Component Matrix^a

	Component		
	1	2	3
Time risk	.012	.620	-.196
price_risk	.068	.151	-.738
quality_risk	.799	-.196	-.107
social_risk	.146	.656	-.229
credibility_risk	.801	.066	.071
delivary_risk	.273	.130	.747
information_risk	.873	.214	.192
financial_risk	.048	.750	.356
process_risk	-.199	.680	.402

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Exhibit 7: Factor Analysis Result - Tier1

The following factors have been clubbed after factor analysis for Tier 1 cities:

Component 1	Component 2	Component 3
Quality/performance risk	Time risk	Delivery risk
Credibility risk	Price risk	
Information risk	Social risk	
	Financial risk	
	Process risk	

Exhibit 8: Component Division of Risks for Tier -1

The following factors have been clubbed after factor analysis for Tier 2 cities:

Component 1	Component 2	Component 3
Credibility risk	Information risk	Price risk
Delivery risk	Social risk	Financial risk
Process risk		Time risk
		Quality risk

Exhibit 9: Component Division of Risks for Tier - 2

Conclusion

The results identify the level of seriousness of risk in each of Tier 1, 2 and 3 cities for electronics and apparel categories. Low risks have been classified for both the categories.

Risk	Tier – 1		Tier – 2		Tier – 3	
	Electronics	Apparel	Electronics	Apparel	Electronics	Apparel
Time Risk	High		High			
Price Risk				Moderate		
Quality/ Performance Risk		Low		Low		Low
Social/ Psychological Risk	Low	Low	Moderate	Moderate		Moderate
Credibility/ Source Risk			Low		Low	
Delivery Risk	Low	Moderate	Low	High	Low	Moderate
Information Risk	Low		Low	Low	Low	
Financial Risk		Low	Low	Moderate	Low	
Process Risk			Low			

Exhibit 10: Level of Risks

Product Category	Identified Risks (Low Perceived Risk)
Apparels	Social Risk, Financial Risk, Delivery Risk
Electronics	Credibility Risk, Information Risk, Delivery Risk

Exhibit 11: Low Perceived Risks for Product Categories

For each of the two categories, segments have been defined which can be used to segment the customers based on perceived risk. After defining the segments, the targets are segregated with the help of the correlation between the category and type of city. This helps in correct targeting of the customers. The following table shows the segments for the apparel category bought online.

Apparel Category	
Segments	Time Risk, Price Risk, Quality Risk, Social Risk, Credibility Risk, Delivery Risk, Information Risk, Financial Risk, Process Risk
Target Segments	Social Risk, Financial Risk, Delivery Risk
Target Tier – 1, 2, 3	Tier - 1

Exhibit 12: Segmentation & Targeting on basis of risks for Apparel Category

The same details have been put down for the electronics category as well.

Electronics Category	
Segments	Time Risk, Price Risk, Quality Risk, Social Risk, Credibility Risk, Delivery Risk, Information Risk, Financial Risk, Process Risk
Target Segments	Credibility Risk, Information Risk, Delivery Risk
Target Tier – 1, 2, 3	Tier – 2 and 3

Exhibit 13: Segmentation & Targeting on basis of risks for Electronic Category

From the above analysis, we conclude that it is time for Indian online retailers to think beyond the conventional segmentation techniques and start focusing on masses across the country. The consumer decision-making process is changing quickly in the country with the rise of aspirer and learned class in Tier 2 and Tier 3 cities. Increasing standard of living and decreasing time available to shop offline is prompting people to move towards online shopping.

People from Tier 2 cities though being aspirers are risk averse in nature and are conscious about the quality of goods and information shared about them online. They are demanding for more information than what is already present and so the perceived risk is moderate to high for sale of apparels and electronics in there cities. However, customers from Tier 3 cities perceive the information available online as sufficient to make a purchasing decision.

An interesting fact to notice is that people across all the tiers trust the online retailer for proper delivery of goods in time without damage. Overall, the analysis is pointing towards increasing penetration and marketing by online retailers in Tier 2 and Tier 3 cities.

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Keywords

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