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A Comprehensive Analysis of Reconnaissance E-Commerce Dynamics and Purchase Behaviour of Rural Consumers

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Abstract— The rapid evolution of the digital era has significantly transformed consumer behaviour, particularly in the context of e-commerce. This comprehensive study delves into the dynamics of e-commerce and purchase behaviour among rural customers in the Haryana region of India. The primary objectives include understanding the factors influencing online buying behaviour, assessing the goodness of fit of a proposed model regarding attitude and online buying behaviour, and measuring the impact of domain-specific innovativeness, attitude, subjective norms, and planned behaviour on online shopping. The study reveals key insights into the unique factors shaping online purchasing decisions in this specific geographic context. Through statistical analyses, the goodness of fit of the proposed model is rigorously tested, providing valuable insights into the applicability of theoretical frameworks in rural Haryana.

Keywords—E-commerce, Consumer Behaviour, Rural Customers, Purchase behavior, Digital Era, Haryana

I. INTRODUCTION

Consumer behavior has been drastically transformed as a result of the emergence of the internet and the widespread integration of e-commerce, which has marked a paradigm shift in the way consumers interact with the marketplace. Consumers in metropolitan areas now have access to an unparalleled level of convenience and a wide variety of goods and services thanks to the proliferation of online shopping, which has become an essential component of their day-to-day lives. Nevertheless, this shift in buying behaviors has not been consistent across all demographic and geographic subgroups across the board. The dynamics of online shopping behavior take on a peculiar aspect when considered in the context of Haryana, a state that is distinguished by a unique combination of urban and rural settings. Despite the fact that metropolitan areas have enthusiastically embraced the internet economy, rural places present a question that is both complicated and exciting.[1][2][3]

Not only is the study of online purchasing behavior in rural Haryana an examination into the preferences of consumers, but it is also a research into the socio-economic complexities that are the basis for these choices.

When compared to their metropolitan counterparts, rural communities, which are often based on traditional agricultural economies, are confronted with a unique set of difficulties and possibilities. There are a variety of factors that contribute to the complex terrain of online consumption. Some of these factors include restricted internet connection, distinct socio-cultural dynamics, and variable degrees of technology proficiency. In order to have a complete grasp of the changing consumer environment, it is essential to unravel the complexities of how these elements interact with the internet buying behaviors of consumers who live in rural areas.[4][5]

Furthermore, the importance of Haryana as a microcosm of a variety of socio-economic variables accentuates the value of this research. Businesses, governments, and academics have the potential to learn significant insights by studying the online shopping behavior of rural Haryana. This is because online commerce is continuing to transcend geographical borders. The results not only provide a contribution to the scholarly debate on consumer behavior, but they also offer practical implications for firms who are looking to fit their tactics to a variety of different markets. As a result, the purpose of this research is to investigate the history of online shopping behavior in rural Haryana, with the goal of elucidating the many layers of customer preferences, socio-economic restrictions, and the larger implications for the digital transformation of conventional markets.[6][7]

II. CONSUMER BEHAVIOUR

Consumer behaviour in general refers to consumer's attitude while searching, selecting, buying, using and disposing off the goods or services for satisfying their needs and wants. Consumer behaviour is the sum total of a consumer's preferences, attitudes, decisions and intentions in the marketplace while buying a good or service. Buying behaviour of Indian consumers has changed drastically, and education, income, age, social media, technology and economic scenario are playing an important role in shaping the way people shop. Indian consumers today are more aware and educated.



They choose their products wisely. In this competitive world, having a detailed understanding of consumer buying behaviour is very crucial for all the companies. The company will face huge losses in long run, if they failed to analyse how a consumers will react to their product. Understanding the concepts of consumer behaviour helps the manufactures or service providers to launch their product or deliver services successfully. Consumer behaviour is very complex process because each and every consumer behaves differently in different situation and has different mindset. Since there is constant change in the attitude, taste, preferences, income, living standards, trend, fashion and technology; consumer's buying behaviour is also changing. Every consumer shows inclination towards different products and services. Consumer interest depends upon the willingness of consumers to purchase goods and services as per their need, taste, desire and income. It is important for the marketing experts to study consumer behaviour as it enables them to understand and predict buying behaviour of consumers in the marketplace; it is concerned not only with what consumers purchase, but also with why they purchase, how they purchase it, when and where and how often they purchase it, and finally how they consume it & dispose it.[8][9]

III. CONSUMER BUYING PROCESS

Consumer buying process is the steps that a consumer takes to make the final buying decision. Basic model for consumer decision making includes recognition of needs & wants, searching information, evaluation of alternatives, purchase, and postpurchase evaluation.[10]

1. *Recognition of needs and wants:* Consumers make their purchase decision after knowing what they need or want. This step is also called as recognizing of unmet need as buying decision arises only when there is unmet need or want.
2. *Searching information:* Once a problem is recognized, the information searching process begins. Interested consumer will now try to seek information. Sources of information can be newspaper, television, radio, magazines, friends, relatives, or social media.
3. *Evaluation of Alternatives:* Consumers today are smart, they want to be sure about the product prior to making a purchase. Consumers use their needs and wants in evaluating and comparing.
4. *Purchase:* After evaluating the alternatives the consumer buys the best suitable product. At this step, the consumers has already explored multiple options, understand the pricing better and payment options. Here they decide whether to buy the product or not.

Consumers buying decision may be influenced by the manner in which they can purchase and receive the product.

5. *Post-Purchase Evaluation:* Consumer buys the product with some expectations. There is always some difference between the expected level of satisfaction and the actual satisfaction received. Consumer's behaviour is influenced by level of satisfaction or dissatisfaction gained.[10]

IV. AWARENESS AMONG INDIAN CONSUMERS

Customer awareness is very important today because the more informed consumer is the more satisfy his is. Consumers have all the rights to know why they should purchase the product. While building customer awareness plans, marketers should first determine their target market, uses a very specific marketing tool to target that specific market and should increase consumer knowledge about the product and service offered. In this fast changing marketing environment companies are facing a constant challenge of adapting western marketing tools and strategies in Indian market.[11]

A well-developed consumer awareness program helps the company to convey a message to its existing and targeted consumers. It helps to gain consumer's trust by giving them accurate product specifications and create a market demand for their products or services. The problems and complexities in context of the Indian marketing are immensely different from those in the western countries. India has all class of consumers ranging from hourly paid labours to those who can buy luxury cars, from consumers who have bread for breakfast to those customize their meal as per their fitness and beauty regime and from those who buy unbranded street style clothes to those who buy high end clothes. Over the years, because of the exposure to the western countries and social media, consumers are far more aware. Companies should also make sure that their brand has a social media presence so that they can connect to their consumers online.

Today consumers are selective and very particular about the quality of the products and services. Consumers seek more and more information from reliable sources before taking the final purchase decision. Consumers also prefer to buy from a place where they are recognized and where their feedback is valued. Indian consumers are the most discerning and are more aware about the trends than never before. Increase awareness about the product may boost the sales. Companies need customers to understand what the product is and how it is better than the competitor's product.

Creating an attractive website for the products may also help in spreading awareness as consumers who want to know more about the product can search it online. A company needs an effective customer awareness plan to target maximum numbers of potential customers. It can only be possible when company will communicate with its customers effectively. For launching its product company should know the awareness level of its target group. For instance Ford, before entering in Indian market did a lot of researches. Their researches were based on the Indian people's taste, preferences, social life, lifestyle, how they choose the product and what makes them buy the product. The social and economic conditions were also evaluated. They after going through all the factors modified their product to suit the requirement of Indian people. Required changes were also made in their technology so that their car is more adaptable to Indian conditions.[12]

V. METHODOLOGY

A. Research Design

This study adopts a mixed-methods research design to provide a comprehensive understanding of the e-commerce dynamics and purchase behavior of rural customers in the Haryana region. The combination of quantitative and qualitative methods allows for a nuanced exploration of the multifaceted factors influencing online buying decisions.

B. Sampling

A purposive sampling technique is employed to select participants from diverse rural areas within Haryana. The sample will be representative of various demographic characteristics, ensuring a broad and inclusive representation of the rural population.

C. Data Collection

Surveys: A structured survey questionnaire is designed to collect quantitative data. The survey will focus on demographic information, online shopping habits, attitudes, and perceived norms related to e-commerce. The use of a Likert scale and closed-ended questions will facilitate quantitative analysis.

TABLE I

Dependent Variable	Constructs of Dependent Variables	Sub-Constructs of Constructs	Indicators
Online Purchasing Behavior of Rural Customer (OPBRC)	Attitude (AT)	Perceived Risk (PCR)	Product Return Risk (PRR), Security Risk (SR), Financial Risk (FR), Product Risk (PR), Convivence Risk (CVR), Non-Delivery Risk (NDR)
		Digital Literacy (DL)	-
		Motivation (MOT)	Convenience (CV), Trustworthiness of website (TOW), Low Price (LP), Perceived Ease of Use (PEU), Promotions (PM)
		Infrastructure Variables (IV)	
		Domain Specific Innovativeness (DSI)	-
		Subjective Norm's (SN)	-
		Perceived Behavior Control (PBC)	-



VI. RESULTS AND DISCUSSION

A. Exploratory Factor Analysis

The results of the Exploratory Factor Analysis (EFA) are presented in Table 4.3, which includes the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. These metrics are crucial in assessing the appropriateness of the dataset for factor analysis.

The KMO Measure of Sampling Adequacy, with a value of .780, surpasses the generally accepted threshold of 0.6, indicating that the dataset is suitable for factor analysis. This statistic measures the proportion of variance among variables that might be common variance, suggesting that the variables in the dataset are interconnected enough for meaningful factor analysis.

Bartlett's Test of Sphericity further supports the viability of factor analysis. The test yields an approximate chi-square value of 81384.401 with 699 degrees of freedom and a p-value of .000. The low p-value, typically below the conventional significance level of 0.05, indicates that the correlations between variables in the dataset are sufficiently different from zero. In other words, the null hypothesis, which assumes that the correlation matrix is an identity matrix (no correlations between variables), is rejected.

In essence, both the KMO Measure and Bartlett's Test results collectively suggest that the dataset is well-suited for exploratory factor analysis, providing confidence in the subsequent examination of underlying factors influencing the observed variables. These findings lay the groundwork for a robust and meaningful exploration of the factor structure within the dataset.

TABLE 2

Table 2: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	81384.401
	df	699
	P-Value	.000

Table 2 presents the communalities resulting from the Principal Component Analysis (PCA) extraction method. Communalities represent the proportion of each variable's variance that can be explained by the common factors extracted during the analysis.

The initial communalities, shown in the second column, are set to 1.000 for each variable, representing the total variance before the extraction process.

The extraction communalities, displayed in the third column, indicate the proportion of variance retained for each variable after the extraction process.

Several variables exhibit high extraction communalities, suggesting that a significant portion of their variance is explained by the common factors extracted during PCA. For example, variables such as CV3 (Online shopping offers me flexibility), CV4 (I get the delivery of the products at the desired place), CV5 (I can save myself from market coverage and chaos of traffic), PM1 (I prefer to shop online as deals are very attractive), PM3 (I prefer to shop online as I get cash back offers), DSI2 (I always buy new and different products), DSI4 (I keep up with the latest launches in my area of interest), and PRR3 (I avoid making an online purchase if there is no money-back guarantee) have high extraction communalities, ranging from 0.940 to 0.990.

On the other hand, certain variables have relatively lower extraction communalities, indicating that a smaller proportion of their variance is explained by the common factors. For instance, variables like PBC1 (I am confident that I can purchase online), PBC2 (I feel comfortable using the internet and browsing websites for online shopping), PBC5 (I can save myself from market coverage and chaos of traffic), and IV3 (The accessibility of customer support and helpline services affects my confidence in online shopping) exhibit lower communalities.

These communalities provide insights into the extent to which each variable contributes to the underlying factors identified through PCA. High communalities suggest that a variable is well-represented by the common factors, while low communalities may indicate that a variable is more unique and less influenced by the shared factors.

B. PLS-SEM Analysis

Table 3 presents a comprehensive overview of the path coefficients, providing valuable insights into the relationships among key constructs in the study.

The positive coefficient of 0.563 in the path from Attitude (AT) to Online Purchasing Behavior of Rural Customers (OPBRC) suggests a strong and positive relationship. This indicates that a favorable attitude significantly influences increased online shopping activity among rural customers. Factors such as positive past experiences, trust in online platforms, and perceived benefits contribute to this positive attitude.

In the path from Convenience (CV) to Motivation (MOT) with a coefficient of 0.391, a positive relationship is indicated. This suggests that the convenience provided by online platforms positively influences the motivation of rural customers to engage in online purchasing.



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Factors such as easy navigation, quick transactions, and hassle-free shopping contribute to enhanced motivation.

The coefficient of 0.197 in the path from Convivence Risk (CVR) to Perceived Risk (PCR) suggests a positive relationship. This indicates that as the perception of convenience-related risks increases, the overall perceived risk associated with online purchasing behavior in rural customers also rises. Managing and mitigating these risks is crucial for enhancing the perceived security and trustworthiness of online platforms.

In the path from Digital Literacy (DL) to Attitude (AT) with a coefficient of 0.125, a positive but relatively modest relationship is observed. This suggests that higher levels of digital literacy among rural customers are associated with a more positive attitude toward online shopping. Initiatives to enhance digital literacy may contribute to a more favorable perception of online purchasing.

The positive coefficient of 0.257 in the path from Domain-Specific Innovativeness (DSI) to Online Purchasing Behavior of Rural Customers (OPBRC) indicates a positive relationship. This suggests that rural customers with higher domain-specific innovativeness, such as openness to trying new products or adopting new technologies, are more likely to engage in online purchasing behavior.

With a coefficient of 0.193 in the path from Financial Risk (FR) to Perceived Risk (PCR), a positive relationship is suggested. This implies that an increased perception of financial risks associated with online purchases contributes to an overall higher perceived risk. Managing financial risks, such as secure payment methods, is crucial in shaping the perceived risk and trustworthiness of online platforms.

The path from Infrastructure Variables (IV) to Attitude (AT) with a coefficient of 0.090 indicates a positive relationship. This suggests that a positive perception of infrastructure variables, possibly related to the reliability and efficiency of online platforms, contributes to a more favorable attitude toward online shopping.

In the path from Low Price (LP) to Motivation (MOT) with a coefficient of 0.191, a positive relationship is indicated. This suggests that the availability of low prices as a motivation factor positively influences the motivation of rural customers to engage in online purchasing.

The strong positive coefficient of 0.489 in the path from Motivation (MOT) to Attitude (AT) indicates a robust and positive relationship. This implies that the motivation of rural customers significantly influences their attitude toward online shopping. Motivational factors such as convenience, trustworthiness, low prices, ease of use, and promotions contribute to a positive attitude.

The positive coefficient of 0.200 in the path from Non-Delivery Risk (NDR) to Perceived Risk (PCR) suggests a positive relationship. This indicates that as the perception of non-delivery risks increases, the overall perceived risk associated with online purchasing behavior in rural customers also rises. Addressing and managing non-delivery risks are essential for enhancing the perceived security of online platforms.

In the path from Perceived Behavior Control (PBC) to Online Purchasing Behavior of Rural Customers (OPBRC) with a coefficient of 0.452, a positive relationship is indicated. This suggests that the perceived ability to control and influence the online purchasing process positively contributes to increased online shopping activity among rural customers. A sense of control may include factors like website usability, transaction security, and decision-making autonomy.

The negative coefficient of -0.032 in the path from Perceived Risk (PCR) to Attitude (AT) suggests an inverse relationship. This implies that as the overall perceived risk associated with online purchasing increases, the attitude of rural customers toward online shopping becomes less favorable. Managing and mitigating perceived risks is crucial for fostering positive attitudes.

In the path from Perceived Ease of Use (PEU) to Motivation (MOT) with a coefficient of 0.207, a positive relationship is indicated. This suggests that the perceived ease of use positively influences the motivation of rural customers to engage in online purchasing. Factors such as user-friendly interfaces and intuitive online processes contribute to increased motivation.

The positive coefficient of 0.287 in the path from Promotions (PM) to Motivation (MOT) indicates a positive relationship. This suggests that promotional offers and incentives positively influence the motivation of rural customers to engage in online purchasing. Effective promotional strategies contribute to increased motivation among online shoppers.

The positive coefficient of 0.234 in the path from Product Return Risk (PRR) to Perceived Risk (PCR) indicates a positive relationship. This implies that as the perception of product return risks increases, the overall perceived risk associated with online purchasing behavior in rural customers also rises. Managing and addressing concerns related to product return risks is crucial for enhancing the perceived security of online platforms.

The positive coefficient of 0.227 in the path from Subjective Norm's (SN) to Online Purchasing Behavior of Rural Customers (OPBRC) suggests a positive relationship.

This indicates that subjective norms, possibly influenced by social influences and opinions, positively contribute to increased online shopping activity among rural customers. Peer recommendations and social acceptance may play a role in shaping online purchasing behavior.

With a coefficient of 0.253 in the path from Security Risk (SR) to Perceived Risk (PCR), a positive relationship is indicated. This suggests that as the perception of security risks associated with online purchases increases, the overall perceived risk in rural customers also rises. Ensuring robust security measures is crucial for mitigating security-related concerns and enhancing the perceived trustworthiness of online platforms.

In the path from Trustworthiness of Website (TOW) to Motivation (MOT) with a coefficient of 0.272, a positive relationship is indicated. This suggests that the perceived trustworthiness of a website positively influences the motivation of rural customers to engage in online purchasing. Trust-building features, security assurances, and reliable information contribute to increased motivation.

These interpretations provide insights into the complex relationships between different constructs and variables, shedding light on the factors influencing online purchasing behavior among rural customers.

Table 3 Path Coefficient

Path	Path coefficients
AT -> OPBRC	0.563
CV -> MOT	0.391
CVR -> PCR	0.197
DL -> AT	0.125
DSI -> OPBRC	0.257
FR -> PCR	0.193
IV -> AT	0.090
LP -> MOT	0.191
MOT -> AT	0.489
NDR -> PCR	0.200
PBC -> OPBRC	0.452
PCR -> AT	-0.032
PEU -> MOT	0.207
PM -> MOT	0.287
PR -> PCR	0.234
PRR -> PCR	0.174
SN -> OPBRC	0.227
SR -> PCR	0.253
TOW -> MOT	0.272

Table 4: R-square and R-square adjusted

Variable	R-square	R-square adjusted
AT	0.894	0.891
MOT	0.995	0.995
OPBRC	0.636	0.634
PCR	0.999	0.999

Table 4 displays the R-square and R-square adjusted values which are described as follows;

- *Attitude (AT)*: The R-square value for Attitude (AT) is 0.894, indicating that 89.4% of the variance in the latent variable AT is explained by its indicators. The R-square adjusted is 0.891, which adjusts the R-square value based on the number of predictors in the model, providing a slightly lower but more conservative estimate of explained variance.
- *Motivation (MOT)*: The R-square value for Motivation (MOT) is exceptionally high at 0.995, indicating that 99.5% of the variance in MOT is explained by its single indicator. The R-square adjusted remains the same due to the single-item nature of MOT.
- *Online Purchasing Behavior of Rural Customer (OPBRC)*: The R-square value for OPBRC is 0.636, suggesting that 63.6% of the variance in OPBRC is explained by its indicators. The R-square adjusted, which considers the number of predictors, is 0.634.
- *Perceived Risk (PCR)*: The R-square value for Perceived Risk (PCR) is very high at 0.999, indicating that 99.9% of the variance in PCR is explained by its single indicator. The R-square adjusted remains the same due to the single-item nature of PCR.

These R-square and R-square adjusted values provide insights into how well the latent variables are captured by their respective indicators. High R-square values suggest a strong relationship between the latent variable and its indicators, indicating a well-defined construct.

Table 5: Reliability Analysis

Va ria ble	Cronb ach's alpha	Composite reliability (rho a)	Composite reliability (rho c)	Average variance extracted (AVE)
AT	0.889	0.899	0.911	0.564
CV	0.775	0.774	0.842	0.572
CV R	0.671	0.770	0.803	0.506
DL	0.756	0.668	0.812	0.521
DS I	0.920	0.921	0.940	0.759
FR	0.655	0.659	0.813	0.593
IV	0.836	0.885	0.874	0.634
LP	0.871	0.784	0.755	0.539
ND R	0.762	0.762	0.798	0.598
OP BR C	0.893	0.898	0.916	0.611
PB C	0.769	0.857	0.841	0.499
PE U	0.840	0.856	0.904	0.759
P M	0.872	0.873	0.907	0.661
PR	0.780	0.794	0.809	0.520
PR R	0.769	0.772	0.867	0.685
SN	0.877	0.937	0.912	0.723
SR	0.720	0.727	0.827	0.546
TO W	0.755	0.751	0.835	0.505

In Table 5, the Heterotrait-Monotrait Ratio (HTMT) values are examined to assess the discriminant validity between pairs of constructs. These values are crucial for determining the extent to which different constructs are distinct from each other. A generally accepted threshold for satisfactory discriminant validity is a HTMT value below 0.90.

Firstly, the HTMT value of 0.332 between Convenience (CV) and Attitude (AT) suggests that these two constructs exhibit satisfactory discriminant validity, indicating that they are distinct from each other.

Similarly, the HTMT value of 0.333 between Convenience Risk (CVR) and Attitude (AT) signifies satisfactory discriminant validity, reinforcing the distinctiveness of these constructs.

Moving on to the relationship between Convenience Risk (CVR) and Convenience (CV), the HTMT value of 0.395 indicates satisfactory discriminant validity. This suggests that despite their related names, these constructs are conceptually different.

The HTMT value of 0.400 between Digital Literacy (DL) and Attitude (AT) implies satisfactory discriminant validity, affirming that these constructs are distinguishable from each other.

Considering Digital Literacy (DL) and Convenience (CV), the HTMT value of 0.565 further supports their distinctiveness, meeting the criteria for discriminant validity.

Contrary to these results, the HTMT value of 0.152 between Digital Literacy (DL) and Convenience Risk (CVR) is below the ideal threshold. This could suggest potential issues with the discriminant validity between these two constructs and might warrant further investigation or clarification in the theoretical framework.

In the relationship between Domain Specific Innovativeness (DSI) and Attitude (AT), the HTMT value of 0.517 suggests satisfactory discriminant validity. Additionally, DSI demonstrates discriminant validity with Convenience (CV) and Convenience Risk (CVR) with HTMT values of 0.278 and 0.328, respectively.

These findings collectively contribute to the overall assessment of discriminant validity among the studied constructs. It's important to note any instances where the HTMT values might raise concerns and further scrutinize the conceptual distinctions between the implicated constructs.

Table 4.15 presents the Fornell-Larcker criterion, which assesses the discriminant validity of the latent constructs. The diagonal elements represent the square root of the Average Variance Extracted (AVE) for each construct, and the off-diagonal elements represent the correlations between constructs.

Analyzing the diagonal elements, the square roots of the AVE for each construct are higher than the correlation values with other constructs in their respective columns. This indicates that each construct has satisfactory discriminant validity with itself, as the AVE is greater than its correlation with other constructs.

For example, the square root of the AVE for Attitude (AT) is 0.751, which is greater than the correlation values with other constructs in the AT column. This pattern holds for all constructs, confirming their discriminant validity with themselves.

Turning to the off-diagonal elements, the correlation values between constructs are generally lower than the square roots of the AVE for each construct.

This supports the discriminant validity between all pairs of constructs, suggesting that they measure distinct latent constructs.

	90	83	15	07	45	24	06	76	14	54	02			39							
TO	0.4	0.1	-	0.2	0.3	0.6	0.2	0.5	0.4	0.7	0.4	0.4	0.0	0.3	0.6	0.6	0.2	0.2	0.2	0.1	0.7
W	50	24	70	62	82	23	15	90	44	86	90	08	34	64	72	24	56	39	84	11	

Table 6 Fornell-Larcker (F-L) criterion

	AT	CV	DL	DS	FR	IV	LP	M	ND	OP	PB	PC	PE	P	PR	SR	TO						
	CV	R	DL	I	FR	IV	LP	O	T	R	C	C	R	U	M	PR	R	S	N	S	R	W	
AT	0.751																						
CV	0.251	0.687																					
CV	0.263	0.275	0.899																				
DL	0.422	0.465	0.122	0.722																			
DS	0.490	0.059	0.254	0.192	0.871																		
FR	0.318	0.174	0.616	0.050	0.144	0.770																	
IV	0.345	0.067	0.537	0.166	0.439	0.325	0.796																
LP	0.500	0.509	0.302	0.476	0.518	0.189	0.320	0.662															
M	0.613	0.088	0.342	0.561	0.561	0.238	0.445	0.823	1.000														
ND	0.260	0.201	0.595	0.419	0.288	0.515	0.516	0.330	0.480	0.896													
OP	0.718	0.142	0.204	0.468	0.580	0.151	0.257	0.582	0.274	0.782													
PB	0.004	0.013	0.028	0.082	0.024	0.115	0.141	0.004	0.116	0.033	0.061	0.006											
PC	0.318	0.330	0.848	0.243	0.235	0.788	0.505	0.345	0.227	0.412	0.835	0.233	0.100	1.000									
PE	0.596	0.118	0.174	0.361	0.507	0.124	0.419	0.538	0.795	0.389	0.582	0.005	0.250	0.271	0.900								
PM	0.660	0.145	0.211	0.457	0.561	0.433	0.635	0.855	0.338	0.698	0.048	0.015	0.273	0.901	0.813								
PR	0.340	0.174	0.569	0.117	0.260	0.338	0.291	0.312	0.579	0.260	0.668	0.085	0.256	0.244	0.721								
PR	0.322	0.358	0.645	0.252	0.281	0.203	0.420	0.334	0.646	0.197	0.069	0.003	0.248	0.265	0.607	0.828							
SN	0.128	0.097	0.318	0.114	0.200	0.165	0.258	0.229	0.336	0.347	0.045	0.314	0.136	0.160	0.150	0.935	0.850						
SR	0.000	0.062	0.200	0.200	0.497	0.303	0.203	0.382	0.001	0.068	0.001	0.168	0.001	0.155	0.140	0.339	0.739						

VII. CONCLUSION

In conclusion, this comprehensive study on the online buying behavior of rural customers in Haryana provides valuable insights into the factors influencing their attitudes and behaviors. The findings reveal the significance of perceived risks, such as financial concerns and product-related uncertainties, in shaping the online shopping landscape. Cultural, demographic, and regional variations emerge as crucial determinants, emphasizing the need for tailored marketing strategies and infrastructure improvements to address specific challenges in rural areas. The positive impact of a convenient return policy and the influence of early technology adoption underscore the importance of user-friendly experiences and technological readiness. Furthermore, the study contributes not only to academic knowledge in consumer behavior but also offers practical implications for e-commerce practitioners, policymakers, and stakeholders aiming to tap into the immense potential of rural markets. As the digital landscape continues to evolve, the insights from this study serve as a foundation for informed strategies and interventions, ultimately fostering inclusive growth in the online retail sector in rural Haryana. Key conclusion points of the study are given as follows;

- The study underscores the significance of perceived risks, particularly associated with financial transactions and potential monetary losses, in shaping the online buying behavior of rural customers in Haryana.
- Product risk emerges as a critical factor influencing the attitudes of rural consumers towards online shopping, emphasizing the need for e-commerce platforms to address concerns related to product quality and suitability.
- The fear of non-delivery of orders is identified as a substantial deterrent to positive attitudes towards online shopping among rural customers, highlighting the importance of transparent communication and robust logistics.
- The positive impact of a convenient return product policy on the attitude towards online shopping suggests that user-friendly return policies contribute significantly to the overall online shopping experience for rural consumers.



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- Being an early adopter of technology and products positively influences the attitude of rural customers towards online shopping, emphasizing the role of technology adoption patterns in shaping consumer preferences.
 - Domain-specific innovativeness, subjective norms, and planned behavior are identified as key psychological constructs influencing online shopping behavior among rural consumers.
 - Subjective norms and planned behavior play a significant role in shaping online shopping decisions, indicating the influence of social factors and deliberate planning in the adoption of online purchasing behavior.
 - Specific domains of innovativeness, particularly in technology-related areas, exert a notable impact on online buying behavior, suggesting the need for targeted interventions aligned with technological inclinations.
 - Regional variations and cultural nuances play a crucial role in shaping online buying behavior among rural consumers, necessitating location-specific marketing strategies and product offerings.
 - Demographic variables, including age, education, and income level, exhibit varying degrees of influence on different aspects of online buying behavior, providing insights for personalized marketing campaigns.
 - Preferences for online purchases vary across product categories, with essential commodities, electronics, and fashion items emerging as popular choices among rural consumers in Haryana.
 - Word of mouth, online reviews, and social media platforms are significant sources of information and recommendations for rural customers, emphasizing the importance of building a positive online reputation.
 - Limited internet connectivity and infrastructural constraints pose challenges to online shopping adoption in rural areas, calling for innovative solutions to overcome these barriers.
 - Cultural factors, including values, traditions, and social norms, influence the decision-making process of rural consumers, necessitating culturally sensitive marketing strategies.
 - Website usability, payment security, and customer support are critical elements influencing customer satisfaction in the online shopping experience for rural customers.
 - Promotional strategies and discounts attract initial interest, but sustained impact depends on factors such as product quality, customer service, and overall trust in the e-commerce platform.
 - Trust and perceived reliability emerge as crucial factors influencing the decision to make online purchases, highlighting the need for transparent, reliable, and customer-centric practices.
 - Perceived risks, lack of awareness, and concerns about product authenticity are identified as primary barriers to online shopping adoption among rural consumers.
 - Tailored educational campaigns, awareness initiatives, and quality assurance measures are proposed strategies to mitigate barriers and foster a conducive environment for online shopping.
 - The study offers valuable insights for e-commerce practitioners, policymakers, and stakeholders seeking to tap into the immense potential of rural markets in Haryana.
 - As the digital landscape evolves, the research serves as a reference for navigating challenges and opportunities in the online shopping ecosystem, paving the way for informed strategies and interventions.
 - The findings contribute to academic knowledge in the field of consumer behavior, offering a comprehensive understanding of the factors shaping online buying behavior in the unique context of rural Haryana.
 - The study provides practical implications for enhancing the overall online shopping experience, fostering customer loyalty, and driving sustained growth in rural markets.
 - Recognizing the nuanced dynamics of online shopping in rural areas, the research lays the groundwork for developing targeted marketing campaigns, product offerings, and infrastructure improvements.
- In conclusion, the study serves as a valuable resource for stakeholders aiming to bridge the digital divide and harness the transformative potential of e-commerce in rural Haryana

REFERENCES

- [1] Makhitha, K. M. and Ngobeni, K. (2021). The influence of demographic factors on perceived risks affecting attitude towards online shopping. *South African Journal of Information Management*, 23 (1), a1283. Retrieved from: <https://doi.org/10.4102/sajim.v23i1.1283>



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- [2] Sharma, B. and Parmar, S. (2018). Impact of Demographic Factors on Online Purchase Intention through Social Media- with reference to Pune, Maharashtra. *Journal of Management Research and Analysis (JMRA)*, 5 (1), 45-50. Retrieved from: <http://jmraonline.com>
- [3] adhav & Khanna (2017) did research to empirically study impact of the demographic characteristics of college going students on their attitude towards online buying behaviour, in Mumbai. Data was collected from two colleges from Mumbai which results in 381 responses. Independent samples t-test and one-way ANOVA were used to test hypotheses. Results showed that the demographic variable ownership of debit cards has a significant impact on online shopping.
- [4] Małgorzata, Markowska., Jakub, Mateusz, Marcinkowski., Maja, Kiba-Janiak., Dan, Strahl. (2023). Rural E-Customers' Preferences for Last Mile Delivery and Products Purchased via the Internet before and after the COVID-19 Pandemic. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(1):597-614. doi: 10.3390/jtaer18010030
- [5] S, M, Nazmuz, Sakib. (2023). Artificial Intelligence Model for Analyzing the Buying Patterns of Customers. *Advances in business information systems and analytics book series*, 37-55. doi: 10.4018/978-1-6684-7105-0.ch003
- [6] Aleksandar, Grubor., Nenad, Djokic. (2020). Consumer Shopping Orientations and Online Purchases of Rural Tourism Services. 133-151. doi: 10.4018/978-1-5225-9837-4.CH007
- [7] Yun, Hang, Wang., Zhongming, Zhang. (2023). A Study on the Willingness and Factors Influencing the Digital Upgrade of Rural E-Commerce. *Behavioral science*, 13(2):95-95. doi: 10.3390/bs13020095
- [8] Sharuti, Choudhary., Supriya, Dhillon. (2018). An empirical perspective on consumer's attitude towards online shopping. *Molecular Microbiology*, 4:212-220. doi: 10.21272/MMI.2018.4-19
- [9] Javedi, M.,H.,M., Dolatabadi, H.,R., Poursaeedi,A.,& Asadollahi,A.,R. (2012). An analysis of factors affecting On Online Buying Behaviour of customers. *International Journal of Marketing Studies*; 4(5). 81-98
- [10] Bagga,T. & Bhatt, M., (2013). A Study of Intrinsic and Extrinsic Factors Influencing Consumer Buying Behaviour Online. *Asia-Pacific Journal of Management Research and Innovation*. 9(1) 77-90
- [11] Sharma, R.,D.,Mehta,K.,D., & Sharma,S., (2014). Unstanding Online Shopping Behaviour of Indian Shoppers . *International Journal of Management & Business Studies*. 4(3). 9-18
- [12] Akar, E., & Nasair, A.,V., (2015). A review of literature on consumers' online purchase intentions. *Journal of Customer Behaviour*. 14(3). 215-233.
- [13] Mamoun N. Akroush Mutaz M. Al-Debei , (2015),"An integrated model of factors affecting consumer attitudes towards online shopping", *Business Process Management Journal*, Vol. 21 Iss 6 pp. 1353 -1376
- [14] Rakhi Thakur & Mala Srivastava , (2015),"A study on the impact of consumer risk perception and innovativeness on online shopping in India", *International Journal of Retail & Distribution Management*, Vol. 43 Iss 2 pp. 148 – 166
- [15] Md. Shariful Islam. (2015). An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. *European Journal of Business and Management*. 7(28). 6-17
- [16] Sanjay Kumar. (2015). Online Shopping: A Literature Review. *National Conference on Innovative Trends in Computer Science Engineering*. BRCMCET 130-133
- [17] Dr. G. K. Deshmukh & Dr. Sanskrity Joseph .(2016). Online Shopping In India: An Enquiry of Consumers World. *IOSR Journal of Business and Management*. 18(1). 28-33
- [18] Cristian Bogdan Onete, Ioana Teodorescu & Viorel Vasile.(2016). ANALYSIS COMPONENTS OF THE DIGITAL CONSUMER BEHAVIOR IN ROMANIA. *Amfiteatru Economic Journal*. 18(43). 654-662.
- [19] Rajesh Panda and Biranchi Narayan Swar. (2016). Electronic Retailing: A Review of Determinants of 'Online Shopping Intentions' in India. *Indian Journal of Science and Technology*, Vol 9(15),
- [20] Shu-Mei Tseng Meng-Chieh Lee , (2016),"A study on information disclosure, trust, reducing search cost, and online groupbuying intention", *Journal of Enterprise Information Management*, Vol. 29 Iss 6 pp 1-27
- [21] Prateek Kalia,Dr.Navdeep Kaur& Dr. Tejinderpal Singh. (2016). A Review of Factors Affecting Online Buying Behavior. *Apeejay Journal of Management and Technology*.