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The Influence of Rapid Commerce on Consumer's Impulsive Buying Behaviour

Dr. SVG Apoorva[1], Dr. R. Sreenivasa Rao[2], Dr. D. Thiruvengala Chary[3], Dr.VRS Babu. Yalamathi[4], Mr. Shaik Abdul Ayaaz[5]

[1]Asst. Professor, Department of Management Studies, Vignan's Foundation for Science Technology and Research, Vadlamudi, Guntur, Andhra Pradesh, Email ID: singumahanthiprv10@gmail.com

[2]Professor, Sir CR Reddy College, Eluru, Email ID: rsrmba.crr@gmail.com

[3]Asso. Professor & Centre Head, Dr. MCR HRD Institute of Telangana, Hyderabad, India, Mail:dtchary@mcrhrdi.gov.in

[4]Asso. Professor, MBA Programme, Sir C.R.Reddy College, Eluru

[5]MBA, Department of Management Studies, Vignan's Foundation for Science Technology and Research, Vadlamudi, Guntur, Andhra Pradesh, Email ID: abdulayaazshaik7@outlook.com

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KEYWORDS

Quick Commerce, Impulsive Buying, Consumer Behavior, Digital Retail, Marketing Strategies.

ABSTRACT

Rapid commerce, also known as quick commerce, is transforming the retail industry by offering consumers ultra-fast delivery of products, often within minutes. This study examines the increasing impact of rapid commerce on consumer behavior, particularly in relation to impulsive buying tendencies. With the rise of digitalization, mobile applications, and artificial intelligence-driven logistics, consumers are now more inclined to make unplanned purchases due to the accessibility and immediacy of products. The research explores various psychological and behavioral factors that contribute to impulsive buying in the context of rapid commerce, including convenience, time pressure, promotional strategies, and instant gratification. Additionally, the study delves into the role of technological advancement, such as automated inventory management, predictive analytics, and optimized last-mile delivery, in enhancing the efficiency of rapid commerce platforms. It further investigates the influence of demographic factors such as age, income level, and lifestyle on consumer engagement with quick commerce services. While rapid commerce offers significant benefits such as convenience, flexibility, and a seamless shopping experience, it also presents challenges for businesses, including high operational costs, supply chain complexities, environmental sustainability concerns, and competitive market pressures. The findings suggest that rapid commerce not only enhances customer satisfaction and brand loyalty but also increases impulsive buying behavior due to the elimination of decision-making delays. Retailers and e-commerce platforms must adopt innovative marketing strategies, such as personalized recommendations and real-time promotions, to capitalize on this trend while addressing ethical considerations related to overconsumption. The study provides valuable insights for businesses, policymakers, and marketers seeking to understand the evolving dynamics of consumer behavior in the digital shopping era. It also emphasizes the need for sustainable and efficient business models that balance speed, customer satisfaction, and environmental responsibility in the ever-evolving landscape of rapid commerce.

INTRODUCTION

The rapid expansion of e-commerce has resulted in a new phenomenon known as quick commerce fondly called as Q-commerce, which is distinguished by ultra-fast delivery services, frequently within 10-30 minutes. This strategy has drastically changed the retail scenario because of on-demand logistics, shifting consumer expectations and technology improvements. With a smooth buying experience and little waiting time, Q-commerce takes use of instant satisfaction in contrast to traditional e-commerce, which concentrates on scheduled delivery. The potential impact of Q-commerce on consumer behavior, especially impulsive purchasing inclinations, is one among its most fascinating features. A well-researched psychological phenomenon, impulse buying happens when people make impulsive purchase out of emotion, convenience, and situational considerations rather than consideration of all available options. the features like convenience,

urgency, and persuasive marketing techniques used by Q-commerce platforms, amplify these kinds of behaviors amongst the consumers.

By examining important elements including time constraints, transaction convenience, tailored suggestions, and marketing strategies, this study seeks to understand how Q-commerce and impulsive purchasing behavior are related. Businesses can improve their customer satisfaction methods by comprehending these dynamics, while consumer advocacy organizations and legislators can evaluate any ethical issues pertaining to excessive spending and financial wellness of the consumers. This study aims to add to the expanding digital trade scenario and technology consumption by providing insights into how the instant gratification model of Q-commerce is changing consumer behavior through a combination of theoretical studies and empirical data.

REVIEW OF LITERATURE

According to Michael Stojanov (2022), in Q-commerce-The Next Generation E-commerce, "The emergence of creative entrepreneurs whose business practices take full advantage of the opportunities offered by the epidemic is what drives the fast commerce segment's spectacular growth. COVID-19 atmosphere also supported for the growth of quick commerce rapidly."

"In the modern world, where efficiency and speed are fiercely sought for, the rapid commerce industry prospers by using the speed at which consumer trends change as a tactical advantage. But the growing acceptance of rapid business activities have unavoidably of infrastructure to protect warehouses, increased traffic from regular transportation-related activities, as well as an increase in packaging waste produced during product deliveries, which is resulting in contamination of air purity." says, Eunhye Son, Kwon (2024), in Sustainable Spatial Strategies for mitigating air pollution in Quick commerce environments.

Pedro Edwin Luna Sanchez in his master thesis (2024) stated "Perceived ease of use directly and positively affects customer purchasing behavior as well as Perceived usefulness directly and positively affects customer purchasing behavior besides, Interaction quality directly and positively affects customer purchasing behavior, while interface quality directly and positively affects customer purchasing behavior."

According to Anushka Goswami, Rashmi Kumari(2024),in "A study on Impact of Quick Commerce on Consumer Decision Making Process" states that "In order to help firms and policy makers to get adjusted to the rapidly changing world of digital commerce, the study offered a fresh viewpoint on the connection between swift commerce and consumer psychology. This study also looked at how immediate delivery services affect consumer behavior across different age groups and demographics, based on how consumer impulsivity and satisfaction have changed."

Dr.Aishwarya Nagarathinam, Dr.Elangovan N, Dr. Aarthy Chellasamy, in "The influence of Time Pressure and Physical effort on Quick commerce Grocery purchases : Exploring the effects of family dynamics in purchase decisions(2024), stated that "Nuclear Families with working parents tend to rely more on Q-commerce for convenience, whereas joint families show resistance due to traditional shopping preferences. Q-commerce provides efficiency, speed and ease, reshaping consumer behavior. Future studies can explore its long-term impact on carbon emissions and evolving consumer habits driven by technological advancements in digital retail."

Objectives

- To analyze the relationship between quick commerce features and impulsive buying behavior.
- To evaluate the role of psychological triggers in mediating impulsive buying behavior.
- To assess the moderating effects of consumer-specific (demographics) factors on impulsive buying behavior.
- To determine the impact of marketing techniques on consumer impulsiveness.

METHODOLOGY:

Research Design

This study adopts a quantitative research approach using a survey-based methodology to analyze the impact of quick commerce on impulsive buying behavior of consumers. A structured questionnaire is developed and used to collect data on various independent, mediating, moderating and dependent variables.

Sample size and technique

Sample size: 283 respondents

Sampling technique: Stratified random sampling is used to ensure diversity in demographics (age, gender, income, and shopping habits). The sample is drawn from active Q-commerce users.

Data collection

Primary data is collected using a google form based on a 5-point Likert scale (1-Strongly disagree to 5=strongly agree). The questionnaire covered independent variables, mediating variables, dependent variables and moderating variables.

Statistical tools used for analysis

- Descriptive Statistics

It is used to summarize respondent demographics and key variables. Measures like mean, and percentages are used.

- Factor analysis

It is used to identify key underlying constructs affecting impulsive buying behavior. Exploratory factor analysis is also applied to group interrelated questions in the questionnaire.

- Cluster analysis

It is used to segment consumers based on their impulsive buying tendencies.

- Multiple regression analysis

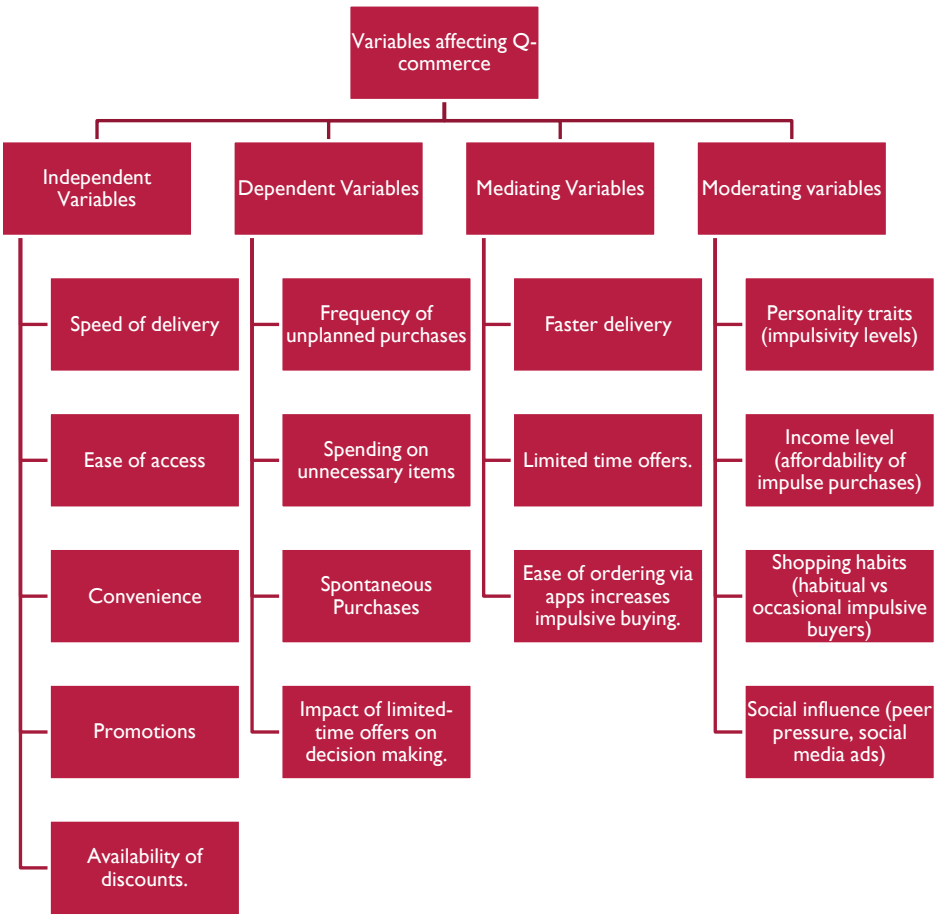
It is used to assess the impact of independent variables on impulsive buying behavior while controlling moderating and mediating variables. The regression model will analyze the significance of speed, convenience, personalized recommendations, push notifications, and financial awareness in predicting impulsive buying.

- Hypothesis Testing

Regression coefficients and p-values will determine which independent variables significantly impact impulsive buying.

Moderation and mediation analysis will test the influence of psychological triggers and consumer-specific factors on the relationship.

Variables of the study



ANALYSIS and FINDINGS

1.FACTOR ANALYSIS

Correlation Matrix	The fast delivery time of quick commerce platforms encourages me to make unplanned purchases	The ability to get products instantly reduces my hesitation before making a purchase.	The ease of using quick commerce apps makes me purchas	The availability of 24/7 quick commerce services increas	I rely on quick commerce for last-minute purchases, even when	The "Recommended for You" section in quick commerce apps	Seeing advertisements for discounts and deals on quick comme	Flash sales or exclusive deals advertised on social media make me	Saved payment methods (e.g., credit card, digital wallets) make it	"Buy Now, Pay Later" or EMI options reduce my hesitati	Flash sales and exclusive deals make me feel pressured to make	I often buy discounted products that I don't necessarily need	While browsing quick commerce apps, I often add extra items	I have made purchases through quick commerce that I later realized	I often shop on quick commerce platforms when I am	The excitement of receiving an order quickly makes me buy impulsi	I sometimes regret making impulse purchases through quick	After ordering, I sometimes feel I could have spent my	I have returned or canceled orders after realizing I bought someth	Since using quick commerce, I have been shopping online more	The convenience of quick commerce has made me more likely to	I feel a sense of satisfaction when I receive my quick comme	Limited-time discounts on quick commerce apps make me feel	Seeing products labeled as "selling fast" or "only a few left"	Quick commerce reduces my need to plan my purchases in advanc	I make a conscious effort to resist unnecessary purchas	I keep track of my expenses and set a budget before making purchas	I feel that quick commerce encourages overspending due to
The fast delivery time of quick commerce platforms encourages me to make unplanned purchases.		0.602	0.658	0.597	0.603	0.461	0.599	0.462	0.444	0.549	0.53	0.305	0.484	0.25	0.274	0.493	0.3	0.391	0.27	0.521	0.545	0.324	0.234	0.258	0.561	0.518	0.295	0.492
The ability to get products instantly reduces my hesitation before making a purchase.	0.602		0.774	0.736	0.736	0.635	0.674	0.659	0.618	0.764	0.635	0.454	0.489	0.511	0.555	0.592	0.476	0.664	0.404	0.742	0.691	0.328	0.404	0.383	0.719	0.593	0.34	0.498
The ease of using quick commerce apps makes me purchase items I did not initially plan to buy.	0.658	0.774		0.677	0.653	0.562	0.643	0.595	0.46	0.715	0.57	0.471	0.472	0.456	0.435	0.588	0.395	0.59	0.287	0.558	0.591	0.304	0.317	0.318	0.645	0.549	0.295	0.502
The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	0.597	0.736	0.677		0.739	0.67	0.659	0.587	0.572	0.7	0.622	0.414	0.456	0.423	0.475	0.582	0.5	0.636	0.382	0.601	0.618	0.273	0.305	0.306	0.551	0.426	0.193	0.435
I rely on quick commerce for last-minute purchases, even when they are not urgent.	0.603	0.736	0.653	0.739		0.608	0.631	0.632	0.531	0.645	0.543	0.508	0.432	0.422	0.567	0.592	0.482	0.686	0.356	0.703	0.649	0.334	0.402	0.314	0.613	0.471	0.205	0.362
The "Recommended for You" section in quick commerce apps often tempts me to buy additional items.	0.461	0.635	0.562	0.67	0.608		0.569	0.581	0.65	0.618	0.692	0.427	0.575	0.447	0.488	0.551	0.569	0.636	0.382	0.59	0.464	0.403	0.395	0.436	0.514	0.47	0.293	0.462
Seeing advertisements for discounts and deals on quick commerce platforms makes me buy impulsively.	0.599	0.674	0.643	0.659	0.631	0.569		0.786	0.59	0.687	0.687	0.629	0.49	0.42	0.468	0.594	0.546	0.555	0.36	0.618	0.647	0.295	0.33	0.478	0.725	0.439	0.286	0.38
Flash sales or exclusive deals advertised on social media make me purchase products spontaneously.	0.462	0.659	0.595	0.587	0.632	0.581	0.786		0.617	0.607	0.604	0.745	0.359	0.449	0.598	0.638	0.484	0.588	0.329	0.61	0.492	0.37	0.4	0.53	0.695	0.387	0.337	0.254
Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	0.444	0.619	0.46	0.572	0.531	0.65	0.59	0.617		0.697	0.674	0.47	0.526	0.509	0.479	0.504	0.546	0.503	0.278	0.548	0.66	0.559	0.53	0.565	0.571	0.471	0.42	0.506
"Buy Now, Pay Later" or EMI options reduce my hesitation in making instant purchases.	0.548	0.764	0.715	0.7	0.645	0.618	0.697	0.607	0.697		0.702	0.456	0.562	0.596	0.481	0.583	0.568	0.616	0.367	0.619	0.673	0.403	0.43	0.444	0.657	0.512	0.297	0.493
Flash sales and exclusive deals make me feel pressured to make quick purchase decisions.	0.53	0.635	0.57	0.622	0.543	0.682	0.687	0.604	0.674	0.702		0.596	0.498	0.42	0.644	0.628	0.556	0.582	0.337	0.629	0.56	0.327	0.452	0.564	0.676	0.462	0.38	0.447
I often buy discounted products that I don't necessarily need because of fear of missing out (FOMO).	0.305	0.454	0.471	0.414	0.508	0.427	0.629	0.745	0.47	0.456	0.596		0.252	0.428	0.59	0.572	0.527	0.516	0.221	0.414	0.299	0.34	0.483	0.526	0.556	0.247	0.264	0.226
While browsing quick commerce apps, I often add extra items to my cart on impulse.	0.484	0.489	0.472	0.456	0.432	0.575	0.49	0.359	0.526	0.562	0.499	0.252		0.609	0.397	0.49	0.511	0.501	0.446	0.386	0.451	0.536	0.523	0.502	0.527	0.309	0.273	0.582
I have made purchases through quick commerce that I later realized I didn't really need.	0.25	0.511	0.456	0.423	0.422	0.447	0.42	0.449	0.509	0.596	0.42	0.428	0.609		0.418	0.363	0.637	0.504	0.376	0.396	0.365	0.508	0.569	0.548	0.416	0.295	0.306	0.591
I often shop on quick commerce platforms when I am feeling bored or stressed.	0.274	0.555	0.435	0.475	0.567	0.468	0.459	0.598	0.479	0.491	0.544	0.59	0.397	0.418		0.678	0.468	0.608	0.359	0.511	0.359	0.294	0.593	0.514	0.555	0.292	0.352	0.214
The excitement of receiving an order quickly makes me buy impulsively.	0.493	0.592	0.588	0.582	0.582	0.551	0.594	0.638	0.504	0.583	0.628	0.572	0.49	0.363	0.678		0.54	0.587	0.427	0.633	0.424	0.277	0.465	0.46	0.598	0.513	0.347	0.362
I sometimes regret making impulse purchases through quick commerce platforms.	0.3	0.476	0.395	0.5	0.482	0.568	0.546	0.484	0.546	0.568	0.556	0.527	0.511	0.637	0.468	0.54		0.53	0.406	0.427	0.344	0.436	0.517	0.451	0.428	0.315	0.367	0.508
After ordering, I sometimes feel I could have spent my money more wisely.	0.391	0.664	0.59	0.636	0.686	0.636	0.555	0.598	0.503	0.616	0.582	0.516	0.501	0.504	0.608	0.587	0.53		0.477	0.643	0.527	0.35	0.426	0.416	0.612	0.468	0.168	0.355
I have returned or canceled orders after realizing I bought something impulsively.	0.27	0.404	0.267	0.382	0.356	0.382	0.35	0.323	0.278	0.367	0.337	0.221	0.446	0.376	0.359	0.427	0.406	0.477		0.396	0.247	0.231	0.361	0.385	0.445	0.396	0.283	0.338
Since using quick commerce, I have been shopping online more frequently than before.	0.521	0.742	0.558	0.601	0.703	0.59	0.618	0.61	0.548	0.618	0.629	0.414	0.386	0.386	0.511	0.633	0.427	0.643	0.396		0.649	0.256	0.289	0.352	0.702	0.641	0.339	0.394
The convenience of quick commerce has made me more likely to make spontaneous purchases.	0.545	0.691	0.591	0.618	0.649	0.464	0.547	0.492	0.66	0.673	0.56	0.299	0.451	0.365	0.359	0.424	0.344	0.527	0.247	0.649		0.399	0.291	0.272	0.585	0.581	0.26	0.511
I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	0.324	0.328	0.304	0.273	0.334	0.403	0.295	0.37	0.559	0.403	0.327	0.34	0.536	0.508	0.294	0.277	0.436	0.35	0.231	0.256	0.399		0.548	0.472	0.387	0.26	0.228	0.546
Limited-time discounts on quick commerce apps make me feel pressured to buy immediately.	0.234	0.404	0.317	0.305	0.402	0.385	0.33	0.4	0.53	0.43	0.452	0.483	0.523	0.569	0.583	0.465	0.517	0.426	0.361	0.289	0.291	0.548		0.608	0.448	0.188	0.328	0.377
Seeing products labeled as "selling fast" or "only a few left" makes me more likely to purchase.	0.258	0.383	0.318	0.306	0.314	0.436	0.478	0.53	0.565	0.444	0.554	0.526	0.502	0.548	0.514	0.46	0.451	0.416	0.385	0.352	0.272	0.472	0.608		0.509	0.155	0.399	0.367
Quick commerce reduces my need to plan my purchases in advance, making spontaneous buying more common for me.	0.561	0.719	0.645	0.551	0.613	0.514	0.725	0.685	0.571	0.657	0.676	0.556	0.527	0.416	0.555	0.699	0.428	0.612	0.445	0.702	0.585	0.387	0.448	0.509		0.567	0.392	0.435
I make a conscious effort to resist unnecessary purchases on quick commerce platforms.	0.518	0.593	0.549	0.426	0.471	0.47	0.439	0.387	0.471	0.512	0.462	0.247	0.303	0.205	0.292	0.513	0.315	0.468	0.396	0.641	0.581	0.26	0.188	0.155	0.567		0.463	0.452
I keep track of my expenses and set a budget before making purchases on quick commerce platforms.	0.295	0.34	0.235	0.193	0.205	0.293	0.286	0.337	0.42	0.297	0.38	0.264	0.273	0.306	0.352	0.347	0.367	0.168	0.283	0.339	0.26	0.228	0.328	0.399	0.392	0.463		0.332
I feel that quick commerce encourages overspending due to its convenience.	0.492	0.498	0.502	0.435	0.362	0.462	0.38	0.254	0.506	0.493	0.447	0.226	0.582	0.591	0.214	0.362	0.508	0.355	0.338	0.394	0.511	0.546	0.377	0.367	0.435	0.452	0.332	

Table 2: **KMO and Bartlett's Test**

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	6831.613
	df	378
	Sig.	.000

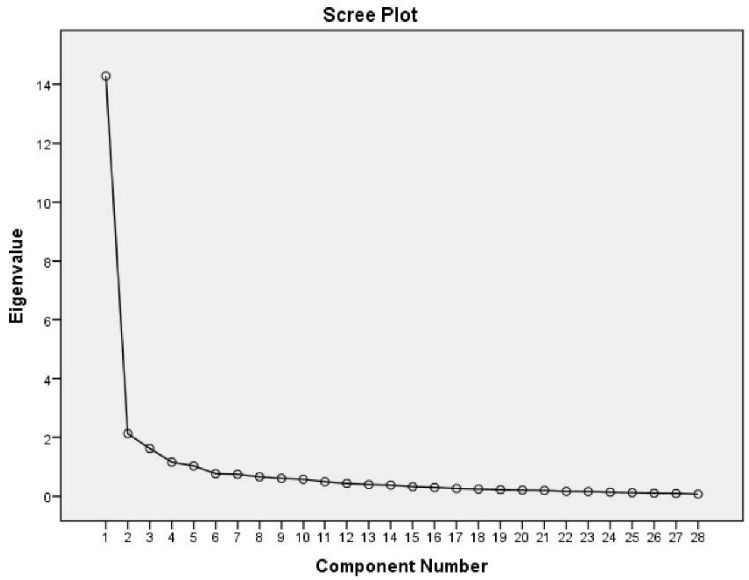
The calculations from the above table indicate that the factor analysis is suitable for thedata and KMO test has good value of 0.920

Communalities		
	Initial	Extraction
The fast delivery time of quick commerce platforms encourages me to make unplanned purchases.	1.000	.636
The ability to get products instantly reduces my hesitation before making a purchase.	1.000	.798
The ease of using quick commerce apps makes me purchase items I did not initially plan to buy.	1.000	.710
The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	1.000	.760
I rely on quick commerce for last-minute purchases, even when they are not urgent.	1.000	.750
The "Recommended for You" section in quick commerce apps often tempts me to buy additional items.	1.000	.614
Seeing advertisements for discounts and deals on quick commerce platforms makes me buy impulsively.	1.000	.737
Flash sales or exclusive deals advertised on social media make me purchase products spontaneously.	1.000	.809
Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	1.000	.729
"Buy Now, Pay Later" or EMI options reduce my hesitation in making instant purchases.	1.000	.749
Flash sales and exclusive deals make me feel pressured to make quick purchase decisions.	1.000	.689
I often buy discounted products that I don't necessarily need because of fear of missing out (FOMO).	1.000	.782
While browsing quick commerce apps, I often add extra items to my cart on impulse.	1.000	.698
I have made purchases through quick commerce that I later realized I didn't really need.	1.000	.712
I often shop on quick commerce platforms when I am feeling bored or stressed.	1.000	.708
The excitement of receiving an order quickly makes me buy impulsively.	1.000	.706
I sometimes regret making impulse purchases through quick commerce platforms.	1.000	.604
After ordering, I sometimes feel I could have spent my money more wisely.	1.000	.753
I have returned or canceled orders after realizing I bought something impulsively	1.000	.752
Since using quick commerce, I have been shopping online more frequently than before.	1.000	.731
The convenience of quick commerce has made me more likely to make spontaneous purchases.	1.000	.708
I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	1.000	.664
Limited-time discounts on quick commerce apps make me feel pressured to buy immediately.	1.000	.681
Seeing products labeled as "selling fast" or "only a few left" makes me more likely to purchase.	1.000	.703
Quick commerce reduces my need to plan my purchases in advance, making spontaneous buying more common for me.	1.000	.731
I make a conscious effort to resist unnecessary purchases on quick commerce platforms.	1.000	.787
I keep track of my expenses and set a budget before making purchases on quick commerce platforms.	1.000	.783
I feel that quick commerce encourages overspending due to its convenience	1.000	.751
Extraction Method: Principal Component Analysis.		

Table 4: total variance explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.282	51.006	51.006	14.282	51.006	51.006	7.993	28.548	28.548
2	2.130	7.607	58.613	2.130	7.607	58.613	4.412	15.757	44.305
3	1.625	5.802	64.416	1.625	5.802	64.416	4.330	15.464	59.769
4	1.164	4.158	68.573	1.164	4.158	68.573	1.892	6.756	66.525
5	1.034	3.694	72.267	1.034	3.694	72.267	1.608	5.743	72.267
6	.769	2.748	75.015						
7	.749	2.676	77.691						
8	.663	2.368	80.059						
9	.611	2.184	82.243						
10	.581	2.075	84.318						
11	.496	1.770	86.087						
12	.439	1.567	87.654						
13	.401	1.431	89.085						
14	.385	1.374	90.459						
15	.329	1.175	91.634						
16	.302	1.079	92.713						
17	.269	.961	93.674						
18	.248	.886	94.561						
19	.227	.809	95.370						
20	.212	.756	96.126						
21	.202	.722	96.848						
22	.169	.604	97.452						
23	.164	.587	98.039						
24	.142	.507	98.546						
25	.125	.446	98.992						
26	.108	.387	99.380						
27	.098	.352	99.732						
28	.075	.268	100.000						
Extraction Method: Principal Component Analysis.									

the components of are now reduced to 5 components



component 1	factorloadings
The fast delivery time of quick commerce platforms encourages me to make unplanned purchases.	0.741
The ability to get products instantly reduces my hesitation before making a purchase.	0.778
The ease of using quick commerce apps makes me purchase items I did not initially plan to buy.	0.779
The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	0.766
I rely on quick commerce for last-minute purchases, even when they are not urgent.	0.732

The "Recommended for You" section in quick commerce apps often tempts me to buy additional items.	0.563
Seeing advertisements for discounts and deals on quick commerce platforms makes me buy impulsively.	0.659
"Buy Now, Pay Later" or EMI options reduce my hesitation in making instant purchases.	0.701
Flash sales and exclusive deals make me feel pressured to make quick purchase decisions.	0.558
After ordering, I sometimes feel I could have spent my money more wisely.	0.549
Since using quick commerce, I have been shopping online more frequently than before.	0.701
The convenience of quick commerce has made me more likely to make spontaneous purchases.	0.773
Quick commerce reduces my need to plan my purchases in advance, making spontaneous buying more common for me.	0.599
I make a conscious effort to resist unnecessary purchases on quick commerce platforms.	0.638
component2	**factorloadings**
I often buy discounted products that I don't necessarily need because of fear of missing out (FOMO).	0.821
I often shop on quick commerce platforms when I am feeling bored or stressed.	0.683
The excitement of receiving an order quickly makes me buy impulsively.	0.528
Seeing products labeled as "selling fast" or "only a few left" makes me more likely to purchase.	0.587
component 3	**factorloadings**
Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	0.525
While browsing quick commerce apps, I often add extra items to my cart on impulse.	0.688
I have made purchases through quick commerce that I later realized I didn't really need.	0.734
I sometimes regret making impulse purchases through quick commerce platforms.	0.543
I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	0.768
Limited-time discounts on quick commerce apps make me feel pressured to buy immediately.	0.621
I feel that quick commerce encourages overspending due to its convenience	0.691
component4	**factorloadings**
I have returned or canceled orders after realizing I bought something impulsively	0.78
component5	**factorloadings**
I keep track of my expenses and set a budget before making purchases on quick commerce	0.812

Impulse buying behavior in the context of quick commerce through factor analysis gives worthwhile insights into consumer purchasing behavior. Kaiser-Meyer-Olkin (KMO) value of 0.920 confirms that the data is highly appropriate for factor analysis, and Bartlett's Test of Sphericity ($X^2 = 6831.613$, $p < 0.001$) guarantees high correlations between the variables, thereby making the use of Principle Component Analysis (PCA) suitable. The study identified that the highest correlation (0.786) is between special offers or flash sales advertised on social media and ad exposure to discounts and offers on quick commerce websites, indicating the influence of marketing campaigns on impulse buying.

Cummulativce variance explained is 72.267%, and this shows that the five identified factors do capture impulsive buying behavior. The strongest is Component 1 (Convenience & Unplanned Buying, 28.548%), which shows that ease of use,

immediate availability, and 24/7 access greatly affect impulse buying. Phrases such as “Ease of using quick commerce apps makes me buy things I didn’t plan to buy” (0.779) and “The convenience of quick commerce has made me more likely to make spontaneous purchases” (0.773) demonstrate the impact of accessibility in impulsive choice.

Component 2 (Emotional Drivers & Fear of Missing Out (FOMO), 15.757%) reflects the impact of psychological drivers such ad boredom, stress, and time-limited offers. The most highly loaded item in this component is “I often buy discounted products that I don’t necessarily need because of FOMO” (0.821), reflecting that time-limited offer marketing strategies and scarcity cues strongly influenc consumer behavior.

Component 3 (Payment Flexibility & Post-Purchase Regret, 15.464%) explains that having stored payment options, electronic wallets, and Buy Now Pay Later (BNPL) reduces purchase reluctance. Impulse purchase, on the other hand, leads to regret, with proof such as “I sometimes regret making impulse purchases through quick commerce platforms” (0.543) and “I feel that quick commerce encourages overspending due to its convenience” (0.691).

Component 4 (Purchase Reversal, 6.756%) indicated that impulse buying is often followed by subsequent returns or cancelaltions, with the item “I have returned or canceled orders after realizing I bought something impulsively” (0.78)having the highest loading.Such identification indiactes that a significant number of consumers think about purchases after the temporary excitement has faded. On the other hand, Component 5 (Financial Awareness & Budgeting, 5.743%) suggests that there are customers who exhibit a conscious avoidance of impulse buying.

On the other hand, Component 5 (Financial Awareness & Budgeting, 5.743% suggest that there are customers who exhibit a conscious avoidance of impulse buying. The most dominant element in this component, “I monitor my spending and plan a budget before making purchases on fast commerce plactforms” (0.812), suggests that even though fast commerce supports impulse buying, there are customers who adopt financial prudence and budgeting methods to regulate their spending properly. Generally, this research reaffirms that impulse buying from instant commerce is largely convenience, emotional, and promotion-driven. Although there consumers who regret the buys and return products, others even monitor costs to avoid wasteful purchasing.

These findings underscore the importance of companies adopting ehtical marketing practices, balancing promotional approaches with consumers financial welfare in order to foster sustainable consumption.

2. CLUSTER ANALYSIS

Final Cluster Centers

	Cluster					
	1	2	3	4	5	6
The fast delivery time of quick commerce platforms encourages me to make unplanned purchases.	4	1	3	3	3	3
The ability to get products instantly reduces my hesitation before making a purchase.	4	1	4	1	3	3
The ease of using quick commerce apps makes me purchase items I did not initially plan to buy.	4	1	3	2	4	3
The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	4	2	3	2	3	3
I rely on quick commerce for last-minute purchases, even when they are not urgent.	4	2	3	1	3	3

The "Recommended for You" section in quick commerce apps often tempts me to buy additional items.	4	2	3	3	2	3
Seeing advertisements for discounts and deals on quick commerce platforms makes me buy impulsively.	4	1	3	1	4	3
Flash sales or exclusive deals advertised on social media make me purchase products spontaneously.	4	2	3	2	4	3
Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	4	2	4	3	2	3
"Buy Now, Pay Later" or EMI options reduce my hesitation in making instant purchases.	4	1	4	2	3	3
Flash sales and exclusive deals make me feel pressured to make quick purchase decisions.	4	1	3	2	2	3
I often buy discounted products that I don't necessarily need because of fear of missing out (FOMO).	4	1	3	2	4	3
While browsing quick commerce apps, I often add extra items to my cart on impulse.	4	2	4	4	2	3
I have made purchases through quick commerce that I later realized I didn't really need.	4	1	3	4	3	3
I often shop on quick commerce platforms when I am feeling bored or stressed.	4	2	3	1	3	3
The excitement of receiving an order quickly makes me buy impulsively.	4	2	3	1	4	3
I sometimes regret making impulse purchases through quick commerce platforms.	4	2	3	2	2	3
After ordering, I sometimes feel I could have spent my money more wisely.	4	2	3	1	3	3

I have returned or canceled orders after realizing I bought something impulsively	3	2	3	2	3	3
Since using quick commerce, I have been shopping online more frequently than before.	4	2	3	1	4	3
The convenience of quick commerce has made me more likely to make spontaneous purchases.	4	2	4	2	1	3
I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	4	1	4	5	2	3
Limited-time discounts on quick commerce apps make me feel pressured to buy immediately.	4	2	4	4	3	3
Seeing products labeled as “selling fast” or “only a few left” makes me more likely to purchase.	4	2	4	4	4	3
Quick commerce reduces my need to plan my purchases in advance, making spontaneous buying more common for me.	4	1	4	2	4	3
I make a conscious effort to resist unnecessary purchases on quick commerce platforms.	4	2	4	2	3	3
I keep track of my expenses and set a budget before making purchases on quick commerce platforms.	4	2	4	3	4	3
I feel that quick commerce encourages overspending due to its convenience	4	1	4	5	3	3

Distances between Final Cluster Centers

Cluster	1	2	3	4	5	6
1		12.791	4.323	10.517	6.651	4.943
2	12.791		9.851	7.018	8.702	7.991
3	4.323	9.851		7.443	5.277	3.022
4	10.517	7.018	7.443		8.704	6.824
5	6.651	8.702	5.277	8.704		4.162

6	4.943	7.991	3.022	6.824	4.162	

ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
The fast delivery time of quick commerce platforms encourages me to make unplanned purchases.	26.818	5	.722	271	37.160	.000
The ability to get products instantly reduces my hesitation before making a purchase.	47.848	5	.331	271	144.583	.000
The ease of using quick commerce apps makes me purchase items I did not initially plan to buy.	39.828	5	.607	271	65.636	.000
The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	47.307	5	.547	271	86.534	.000
I rely on quick commerce for last-minute purchases, even when they are not urgent.	36.254	5	.405	271	89.452	.000
The “Recommended for You” section in quick commerce apps often tempts me to buy additional items.	27.615	5	.415	271	66.586	.000
Seeing advertisements for discounts and deals on quick commerce platforms makes me buy impulsively.	38.888	5	.444	271	87.564	.000
Flash sales or exclusive deals advertised on social media make me purchase products spontaneously.	31.037	5	.376	271	82.491	.000
Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	32.125	5	.353	271	91.027	.000
“Buy Now, Pay Later” or EMI options reduce my hesitation in making instant purchases.	42.109	5	.396	271	106.464	.000

Flash sales and exclusive deals make me feel pressured to make quick purchase decisions.	38.613	5	.425	271	90.949	.000
I often buy discounted products that I don't necessarily need because of fear of missing out (FOMO).	30.165	5	.611	271	49.380	.000
While browsing quick commerce apps, I often add extra items to my cart on impulse.	26.451	5	.494	271	53.539	.000
I have made purchases through quick commerce that I later realized I didn't really need.	24.768	5	.488	271	50.749	.000
I often shop on quick commerce platforms when I am feeling bored or stressed.	28.630	5	.633	271	45.196	.000
The excitement of receiving an order quickly makes me buy impulsively.	40.567	5	.463	271	87.582	.000
I sometimes regret making impulse purchases through quick commerce platforms.	21.751	5	.415	271	52.386	.000
After ordering, I sometimes feel I could have spent my money more wisely.	37.552	5	.371	271	101.289	.000
I have returned or canceled orders after realizing I bought something impulsively	13.175	5	.757	271	17.409	.000
Since using quick commerce, I have been shopping online more frequently than before.	39.014	5	.474	271	82.264	.000
The convenience of quick commerce has made me more likely to make spontaneous purchases.	29.244	5	.540	271	54.181	.000
I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	30.945	5	.487	271	63.549	.000
Limited-time discounts on quick commerce apps make me feel pressured to buy immediately.	19.165	5	.497	271	38.575	.000

Seeing products labeled as "selling fast" or "only a few left" makes me more likely to purchase.	19.335	5	.473	271	40.908	.000
Quick commerce reduces my need to plan my purchases in advance, making spontaneous buying more common for me.	31.370	5	.335	271	93.685	.000
I make a conscious effort to resist unnecessary purchases on quick commerce platforms.	21.074	5	.523	271	40.323	.000
I keep track of my expenses and set a budget before making purchases on quick commerce platforms.	13.291	5	.495	271	26.824	.000
I feel that quick commerce encourages overspending due to its convenience	32.515	5	.477	271	68.140	.000

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Number of Cases in each Cluster

Cluster	1	115.000
	2	22.000
	3	21.000
	4	14.000
	5	4.000
	6	106.000
Valid		282.000
Missing		0.000

It can be seen from the above table that there are 6 clusters formed where maximum number of respondents are lying in cluster 1. In cluster number 1 it can be seen that almost 40 % respondents are those who are high on three traits that are collectivism, recreational and price sensitive. Such type of personality type exhibit that whenever a shopper goes with peers or group for recreation he/she buys impulsively if the price of the product is reasonable. Such consumers could be named as "Thrifty Recreational Collectivists" impulse buyers. Cluster 6 shows that almost 25% of the respondents are those who buy impulsively if they encounter any innovative product means they are exhibiting consumer innovativeness trait. Such types of impulse buyers are called "Innovative impulse buyers". The cluster 2 shows that there are almost 7 respondents who are price sensitive as well as recreational. People in metro cities living lonely are more indulged in such type as they are living alone, in store browsing is a good recreational activity as well as if they find some attractive prices they just buy that product impulsively. This type of impulse buyers is "Thrifty Recreational" impulse buyers. The cluster analysis in the current study aimed at the segmentation of impulse buyers based on their unique personality characteristics as well as the degree of

impulsiveness within the identified clusters. The study employed both non-hierarchical and K-means clustering was used to describe the respondents based on their buying behavior.

Consumer segment identification via Cluster analysis

The analysis resulted in six different clusters with their own tendencies towards impulsive purchase behavior. The classification of participants into the clusters is indicative of the variation in levels of impulsiveness as per parameters such as convenience, emotional stimulation, price policies, and personal characteristics.

Cluster 1 (Thrifty Recreational Collectivists -40% of respondents)

This cluster consists of individuals who buy on impulse when they shop with their friends and enjoy recreational shopping as long as the price is affordable. These customers are a blend of collectivism, recreational orientation, and price consciousness, which leads them to make impulse buying in social settings.

Cluster 2 (Thrifty Recreational buyers – 7% of the respondents)

These consumers are price-sensitive and, at the same time, gain recreational satisfaction from shopping activity. The likelihood of impulse buying is greater in cases of offering good price reductions. The segment is common in single urban residents, where shopping is not merely entertainment but a means of availing good deals.

Cluster 3 (Moderate Impulse Buyers-7.4% of the respondents)

This particular cluster is moderately impulsive, responding to flash sales and personalized recommendations but retaining some degree of control over their shopping.

Cluster 4 (Cautious Buyers – 5% of respondents)

Consumers belonging to this group tend to be comparatively less impulsive, deciding to purchase only after giving it much thought. They show more financial consciousness and budgeting behavior.

Cluster 5 (Highly Sensitive Impulse Buyers – 1.4% of respondents)

This is the least sizeable segment, yet it is the most sensitive to social media, flash sales, time offers, and limited-time promotions. Its impulse purchase is mostly influenced by urgency-based promotion tactics.

Cluster 6 (Innovative Impulse Buyers- 25% of respondents)

They form a segment of consumers who are drawn to novel and innovative products. Their impulse buying tendency is typically motivated by the excitement of trying new products and they are extremely sensitive to product innovation and marketing innovation.

Differences in Behavior among Clusters

Each cluster reveals different degrees of impulsive consumption behavior induced by attributes such as availability, sense of urgency, money beliefs, and psychologic cues. The ensuing key findings outline such differences:

Convenience-Driven Impulse Buying: 1,3, and 6 cluster's customers are more inclined towards speedy delivery and 24/7 availability, making impulse buying more convenient.

The effect of marketing and emotional triggers: Clusters 5 and 6 are most sensitive to flash sales, special offers, and personalized recommendations, whereas clusters 2 and 4 are more restrained.

Financial Consciousness & Spend Management: Clusters 2 and 4 more fiscally prudent, keeping a watch on expenses and avoiding wasteful spending.

Differences in Used Analytical Methods

The current study employed three main analysis methods:

Factor analysis was used to reveal latent psychological and behavioral motivators for impulse purchasing. This technique provided insightful information regarding common drivers such as convenience, emotional triggers, and the effect of promotional activity.

Cluster Analysis has been used to segment the respondents based on their behavior characteristics and thus better portray the consumers' behavior.

Chi-square Test analyzed the correlation between demographic variables and purchasing behavior, establishing strong correlations between age, residential conditions, and impulsive purchasing behavior.

Summary:

Cluster analysis successfully partitioned impulse buyers into six segments, the largest being socially influenced and price-conscious consumers. The findings bring out that the quick commerce impulsiveness is powered by a combination of convenience, promotional strategies, and psychological triggers. This kind of consumer segment information can help companies maximize targeted marketing efforts, personalized promotions, and ethical advertising tactics to maximize consumer satisfaction and profitability.

3. MULTIPLE REGRESSION ANALYSIS

Ho: there is no impact of selected variables on the impulsive buying behavior

Hi: there is impact of selected variables on the impulsive buying behavior

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898[a]	.807	.804	8.915

a. Predictors: (Constant), The availability of 24/7 quick commerce services increases my frequency of unplanned shopping. , I feel a sense of satisfaction when I receive my quick commerce orders almost instantly. , I feel that quick commerce encourages overspending due to its convenience, Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91610.697	4	22902.674	288.185	.000[b]
	Residual	21934.271	276	79.472		
	Total	113544.968	280			

a. Dependent Variable: BUYING BEHAVIOUR

b. Predictors: (Constant), The availability of 24/7 quick commerce services increases my frequency of unplanned shopping. , I feel a sense of satisfaction when I receive my quick commerce orders almost instantly. , I feel that quick commerce encourages overspending due to its convenience, Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.410	2.400		7.254	.000
	I feel that quick commerce encourages overspending due to its convenience	3.516	.667	.180	5.271	.000
	I feel a sense of satisfaction when I receive my quick commerce orders almost instantly.	2.596	.691	.131	3.757	.000
	Saved payment methods (e.g., credit card, digital wallets) make it easier for me to buy impulsively.	7.240	.789	.346	9.181	.000
	The availability of 24/7 quick commerce services increases my frequency of unplanned shopping.	7.870	.572	.460	13.760	.000

The multiple regression analysis conducted during the current research attempted to test the impact of certain independent variables on impulsive buying behavior. The hypothesis that was tested:

Null Hypothesis (H_0): The selected variables do not influence impulsive buying behavior.

Alternative Hypothesis (H_1): Impulsive consumption behavior is affected to a great extent by the selected variables.

Model Summary and Strength of Relationship

The regression model had strong explanatory power, as indicated by the following principal statistics:

R= 0.898, showing the strong correlation of independent variables and impulse buying tendency.

R^2= 0.807. i.e., 80.7% of impulsive buying behavior variance is accounted for by the chosen predictors.

Adjusted R^2= 0.804, with minimal drop, confirming the robustness of the model.

This means that collectively, the independent variables are exerting a great influence on the impulse purchase phenomenon.

Significance of Predictors (ANOVA results)

The ANOVA test confirms the general statistical significance of the model:

F= 288.185, p<0.001, indicating that the predictors explain significant differences in impulse buying behavior.

Regression sum of squares = 91,610.697, confirming that the variation in buying behavior is largely accounted for by the selected variables.

Thus, we have rejected H_0 and concluded that there is a significant effect of these variables on impulsive buying behavior.

Principal Determinants and Their Effects on Impulse Purchasing

The table of co-efficient provides an insight into the relative importance of every independent variable:

Predictor variable/ t Unstandardized Coefficient(B)/t Standardized Coefficient (Beta)/ t-value/ t significance (p).

24/7 Quick Commerce Availability

7.870
0.460
13.760
0.000

Saved Payment Methods (eg., Digital Wallets)

7.240
0.346
9.181
0.000

Quick Commerce promotes over spending

3.516
0.180
5.271
0.000

Satisfaction with Instant Order Receipt

2.596
0.131
3.757
0.000

Availability of 24/7 quick commerce services impacts the most (B=7.870, Beta= 0.460, p< 0.001), indicating that more products are brought on impulse when services are accessible 24/7. The availability of stored payment instruments (B= 7.240, Beta= 0.346, p<0.001) lowers hesitation considerably and promotes impulsive purchases by facilitating transaction. The finding of overspending caused by quick commerce (B= 3.516, Beta= 0.180, p<0.001) indicates that customers know that convenience is the reason for overspending. The prompt gratification received from filling orders (B=2.596, Beta= 0.131, p<0.001) enhances psychological pleasure attached to impulse buying behavior. All the predictors are highly significant (p<0.001), confirming that they have profound influence on impulse buying.

Summary:

The multiple regression analysis confirms that availability of services, online payment, overspending tendencies, and instant gratification are the key factors driving impulse purchase in fast commerce. The R^2 value (0.807) is high, indicating that these variables are effective predictors of consumer impulsivity. The findings highlight that firms need to balance convenience marketing with responsible consumer involvement, such that impulse buying does not translate to economic suffering for the consumer.

Suggestions:

Based on the findings of the study, several key recommendations can be made for future research and practical applications in the field of Quick Commerce (Q-commerce) and impulsive consumer behavior. Some of them are:

Ethical and Regulatory Issues

There should be a review of the ethical dimensions of Q-commerce' pushy promotion practices by policymakers and consumer protection bodies. Additional regulations can be imposed to:

Restrictive the excessive push messages that result in urgency-based impulse buying.

Establish consumer cooling periods to permit second thoughts before confirmatory purchases.

Regulate Buy Now, Pay Later (BNPL) models to avoid over-spending and possible financial crises.

Sustainable Business Practice in Q-commerce

Firms can include sustainability-minded practices to offset the adverse impact of spontaneous buying on the environment, including:

Encouraging sustainable packaging and low-waste delivery.

Executing carbon-aware transportations, i.e., pooled deliveries to maximize reduction in emissions.

Encouraging sustainable customer behavior by granting incentives for purchase in bulk or ahead of small quantities of unthinking buying.

Bettering consumer Intelligence and Financial Empowerment

Financial education initiatives need to be initiated to familiarize consumers with the pitfalls of spontaneous buying during e-commerce. Firms and policymakers can co-ordinate:

Consciousness drives in impulse spending behavior through public campaigns.

Pro-activism through budgetary apps within Q-commerce applications enabling tracking of purchases.

Planning feature creation for budgets in applications in order to cap expenditure.

Personalization through Ethical AI and Data Analytics

While personalized recommendations by AI increase user interaction, ethical measures should be taken to:

Prevent manipulative marketing based on psychological weakness.

Provide adjustable notification options that allow consumers to manage their exposure to offers.

Employ AI to distinguish between impulse and intentional buyers, providing responsible recommendations rather than mere urgency-driven offers.

Implications for Theory and Practice

Implications for Theory:

1. **Widening Consumer Behavior Models:**

The research supports current consumer behavior theories by adding quick commerce (Q-commerce) as a powerful impulse buying driver. It supports the Theory of Planned Behavior (TPB) by illustrating how convenience, online payments, and emotive prompts drive unplanned buying. It provides depth to Stimulus-Organism-Response (SOR) Theory, with marketing offers and convenience of access (stimuli) causing emotional responses resulting in impulsive buying.

2. Psychological Drivers in Online Retail:

FOMO and instant satisfaction are key drivers of online impulse purchasing, affirming their significance in contemporary retail psychology. The research confirms the Self-Regulation Theory, pointing out that there are consumers who plan and keep themselves in check in terms of spending, while others are driven by impulsiveness.

3. Segmentation in Q-Commerce Impulse Buying:

It adds new buyer personas (e.g., Thrifty Recreational Collectivists, Innovative Impulse Buyers) to the segmentation framework of impulse buying behavior for Q-commerce. It distinguishes impulse buying by price sensitivity, social influence, and novelty of the product, developing market segmentation theory.

4. Digital Payment and Purchase Behavior:

It presents empirical findings on the role of stored payment instruments and Buy Now Pay Later (BNPL) arrangements in alleviating hesitation and promoting impulsive purchasing. This is consistent with Prospect Theory, whereby consumers view delayed payment as a smaller current loss, which prompts riskier expenditure choices.

Implications for Practice:

1. Strategic Marketing & Personalization:

Data analytics and AI-based personalization should be used by retailers to segment consumers according to their impulse-buying behavior. Discounts for limited periods, flash sales, and special offers should be planned at the right moment to induce FOMO and drive impulse purchases. Q-commerce platforms ought to include "low-stock alerts" and "selling fast" indications to enhance urgency-based impulse buying.

2. Ethical and Responsible Marketing:

Regulatory agencies should introduce consumer protection regulations to restrict excessive push messages and coercive urgency-based offers. Transparency of BNPL and digital payment arrangements must be promoted to discourage overspending and financial stress. Platforms must provide an impulse purchase "cooling-off" period that enables customers to edit or revoke orders prior to delivery.

3. Better Customer Experience in Q-Commerce:

Seamless payment options (UPI, digital wallets, BNPL) drive impulse buying, but convenience needs to be weighed against ethical standards. Gamification practices (e.g., reward points for purchases that are planned, not impulse buys) can drive responsible spending habits while maintaining user engagement. AI-based chatbots and buy advisors can assist consumers in distinguishing between needs and desires, making wiser suggestions.

4. Sustainability in Q-Commerce:

Driving bulk purchases rather than several small, impulse purchases can lower packaging waste and carbon footprint. Incentives for environmentally friendly purchasing (e.g., rebate on pre-planned purchases or green delivery options) can offset the environmental effects of impulse purchasing. Shops must make investments in return-friendly strategies to deal with high levels of impulse buying returns without undue environmental expense.

REFERENCES

[1] Datta, J., & Bose, S. (2024). A Study on the Growth Prospects of Q Commerce and Its Role Play in eCommerce Business in Present-Day India. In *Sustainability in Marketing Practice* (pp. 155-168). Apple Academic Press.

[2] Goswami, A., & Kumari, R. A Study on Impact of Quick Commerce on Consumer Decision Making Process.

[3] Singh, R. R., & Tomar, V. R. A STUDY OF THE INFLUENCE OF QUICK COMMERCE ON CONSUMER PURCHASE DECISIONS AND SATISFACTION IN THANE CITY.

[4] Luna Sanchez, P. (2024). An analysis of the drivers of consumers' purchasing behavior in quick commerce platforms.

[5] Raj, A., & Das, D. (2025). Optimizing Q-commerce delivery: Unravelling the interplay of fee, penalty, and rider-platform collaborative efforts. *International Journal of Production Economics*, *281*, 109503.

[6] Haneefa, K. V. (2025). Quick Commerce in the Quantum Age: Future Outlook. In *The Quantum AI Era of Neuromarketing* (pp. 403-428). IGI Global Scientific Publishing.

[7] Stojanov, M. (2022). Q-commerce–The next generation e-commerce. Бизнес управление, (1), 17-34.

[8] Son, E., & Kwon, K. H. (2024). Sustainable spatial strategies for mitigating air pollution in quick commerce environments. Environmental Research and Technology, 7(1), 131-139.

[9] Astini, R., Royanti, I., Ramli, Y., Imaningsih, E. S., & Imaroh, T. S. (2024). The Impact of Quick Commerce that Influence the Purchase Decision of E-Grocery. Przestrzeń Społeczna (Social Space), 24(1), 110-128.

[10] Nagarathinam, A., & Chellasamy, A. The Influence of Time Pressure and Physical Effort on Quick Commerce Grocery Purchases: Exploring the Effects of Family Dynamics in Purchase Decisions.