

Exploring Consumer Buying Behaviour Across Generations Using The Technology Acceptance Model

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Abstract:

Background: This study examines the influence of generational differences—Generations X, Y, and Z—on consumer buying behaviour in the context of digital engagement. The Technology Acceptance Model (TAM) was adopted as the theoretical base to explore factors such as perceived usefulness, ease of use, awareness, trust, enjoyment, and risk that shape consumer decisions.

Materials and Methods: The study adopted a descriptive research design to analyze generational differences in consumer buying behaviour. A total of 120 respondents were selected using convenience sampling, with care taken to ensure equal representation in terms of gender, income levels, and digital platform usage. Data were collected through a structured Google Forms questionnaire, designed to capture key factors influencing digital engagement. The responses were analyzed using SPSS software, and chi-square tests were applied to examine the association between gender and the various factors influencing consumer buying behaviour.

Results: The analysis highlighted those factors from TAM—namely perceived usefulness, ease of use, awareness, trust, enjoyment, and risk—significantly influenced consumer behaviour across generations. Chi-square results further revealed associations between gender and certain influencing factors in digital engagement.

Conclusion: The study underscores the need for marketers to adopt generation-specific strategies by leveraging TAM-based insights. Understanding generational variations in digital buying behaviour enables businesses to remain competitive and relevant in the evolving retail landscape.

Keywords: Generation, TAM, Retail Choice, Lifestyle Factors, Brand Image.

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I. Introduction:

Consumer behaviour refers to the study of how individuals, groups, or organizations select, buy, use, and dispose of goods, services, ideas, or experiences to satisfy their needs and wants. Consumer behaviour makes market from being seller-driven to buyer driven (Roy *et al.*, 2022). It includes the mental, emotional, and physical activities that consumers engage in before, during, and after a purchase. The rapid development of technology and digitalization has fundamentally transformed how consumers engage in shopping activities, particularly through online platforms (Syamsudin, *et al.*, 2024).

Process Of Consumer Buying Behaviour:



1. Need Recognition: The process begins when a consumer identifies a need or problem. This could be triggered by internal stimuli (like hunger or thirst) or external stimuli (like seeing an advertisement).

2. Information Search: Once a need is recognized, the consumer starts gathering information about products or services that can fulfill that need. This search can be internal (recalling past experiences) or external (through online searches, reviews, or recommendations).

3. Evaluation of Alternatives: After gathering information, the consumer evaluates different options based on factors like price, quality, features, and brand reputation.

4. Purchase Decision: Based on the evaluation, the consumer makes a decision and proceeds with the purchase. This could involve choosing a specific product, brand, or retailer.

5. Post-Purchase Behaviour: The final stage involves the consumer's experience with the product or service after the purchase. This stage is crucial for building customer loyalty and influencing future purchasing decisions.

Buying Behaviour Of Different Generations:

The Silent Generation (born 1928–1945) tends to be very traditional in their purchasing behavior. They prefer in-store shopping and face-to-face interactions, valuing quality, simplicity, and personal service. Brand loyalty is high among this group, and they are generally conservative with money, often prioritizing savings over indulgent spending. Marketing to them is most effective through traditional media like newspapers, TV, and direct mail, focusing on product reliability, respect, and family-oriented messaging.

Baby Boomers (born 1946–1964) are also relatively loyal to brands but are more open to new experiences and products than the Silent Generation. They appreciate good service, quality, and value for money. Many Boomers have adopted online shopping, although they still enjoy the in-store experience. They are significant spenders in areas like travel, healthcare, and home improvements. Effective marketing strategies include email marketing, informative content, and clear messaging through channels like Facebook and television.

Generation X (born 1965–1980) is often seen as skeptical and research-oriented. They value practicality, convenience, and price, and tend to read reviews or compare products before purchasing. They use both online and offline platforms for shopping and expect transparent, reliable information from brands. Gen X is responsive to marketing that emphasizes efficiency, quality, and value, with channels like email newsletters, search engine marketing, and review-based content being effective.

Millennials, or Generation Y (born 1981–1996), are highly digital and mobile-savvy. They prefer shopping online and often use apps for convenience. Their buying decisions are heavily influenced by social media, peer reviews, and influencer endorsements. Millennials tend to prioritize experiences over possessions and are drawn to brands that align with their values, such as sustainability, social responsibility, and ethical practices. They respond well to personalized marketing, subscription models, and loyalty programs, particularly on platforms like Instagram and YouTube.

Generation Z (born 1997–2012) is the first true generation of digital natives. They are highly connected, relying on mobile devices and social media to discover and purchase products. This generation values authenticity, individuality, and transparency. Brand loyalty is weaker among Gen Z, and they are quick to shift preferences based on trends and peer influence. They are most responsive to short-form video content, memes, and interactive campaigns on platforms like TikTok, Snapchat, and Instagram. Marketing to Gen Z should focus on speed, creativity, and strong ethical values.

Generation Alpha (born 2013 onwards) is still growing but already influencing family purchasing decisions, especially in technology, toys, food, and entertainment. They are being raised in a world dominated by smart devices, AI, and instant access to content. Their preferences are shaped by highly visual and interactive content, such as YouTube videos, mobile games, and educational apps. Although they are not direct consumers yet, brands target them through their parents with messages that emphasize safety, education, and innovation.

Theoretical Background:

The Technology Acceptance Model (TAM) developed by Fred Davis in 1989, helps us to understand why people choose to use new technology focusing on whether they find it useful and easy to use. On the other hand, the Acceptance of Innovation, based on Rogers Diffusion of Innovation theory highlights how different consumer groups adopt new ideas at various stages from innovators to laggards. In today's world of Virtual marketing, companies apply these ideas by using tools like AR/VR for virtual product try-ons, AI chatbots for instant help and influencer promotions on social media. These make the technology feel more helpful and simple for customers. At the same time, businesses reduce hesitation through free trials, secure payment options and clear guidance. By combining both approaches, marketers can connect with different groups of customers and make digital and virtual innovations more widely accepted.

II. Review Of Literature:

A review of recent literature reveals evolving consumer behaviour patterns shaped by generational differences, values, and technological shifts.

Setiasih. S. & Triyuni, S. (2017) study examines how Generations X, Y, and Z, along with lifestyle factors, influence retail choices. It highlights the importance of brand image in building trust and satisfaction. Retailers must adapt to generational differences to stay competitive and retain customers.

Dede Suleman et al., (2019) study aims to analyze the effect of usefulness, ease of use, and trust on consumer attitudes and decisions in online fashion shopping. Using a survey with 150 respondents in Jakarta (aged 17+ with prior online purchase experience), the results show that usefulness and ease of use significantly

influence attitudes, and attitudes strongly affect decisions. However, unlike previous studies, trust was not found to significantly impact attitudes, suggesting that in online fashion shopping, consumer decisions are driven more by attitudes than by trust.

Sonkar, S., Singh, P., & Singh Dubey, R. (2025), study uses the Value-Belief-Norm (VBN) theory to examine green cosmetic buying behaviour among 401 Indian consumers. Findings reveal that Personal values significantly influence pro-environmental beliefs and ecological norms, which in turn shape green word-of-mouth and purchase behaviour. Generational differences act as a moderator, showing that consumer responses to green marketing vary by age group, offering key insights for targeted sustainable marketing.

Theocharis, D. et. al., (2025) study explored the key factors influencing online consumer behaviour among Generation Z, particularly regarding newly launched tech products. Using a sample of 302 respondents and a structured questionnaire based on established consumer behaviour theories, the research identified six major influencing factor groups. The findings emphasize the significant role of perceived risk as a moderating variable and provide valuable insights for marketers to develop more targeted and effective digital strategies tailored to Gen Z consumers.

Förster K. (2024) study extends the Technology Acceptance Model (TAM) to consumer goods by developing the Consumer Goods Acceptance Model (CGAM) and testing it with tea-to-go. Using an exploratory approach with quota sampling, the results confirm that the CGAM is reliable and valid. Perceived usefulness (PU) is found to be the strongest predictor of behavioural intention, driven mainly by cognitive instrumental processes (lifestyle, trends, price) and value-related aspects such as functional ingredients. Enjoyment and indulgence strongly influence perceived ease of use (PEOU), showing that the model effectively explains consumer acceptance in a non-technological context.

These studies collectively highlight the need for marketers to tailor strategies that align with generational preferences, sustainability values, and digital engagement trends.

Statement Of The Problem:

In today's dynamic and technology-driven marketplace, there has been a drastic shift in the buying behaviour of consumers, particularly among Generations X, Y (Millennials), and Z, due to rapid technological advancements, increased digital access, and evolving lifestyle preferences. Generation X is gradually shifting from traditional to online shopping, Millennials focus on value and experiences, while Generation Z prefers fast, trend-driven, and mobile-first purchases. These changes have created challenges for businesses to understand and meet the diverse expectations of these generations. Therefore, it is important to study and compare their consumer behaviour to develop effective marketing strategies.

Objectives Of The Study:

This study aims to achieve the following objectives:

RO1: To study the changing patterns of consumer behaviour among Generations X, Y, and Z.

RO2: To identify the key factors influencing the buying decisions of Gen X, Y, and Z.

RO3: To examine the impact of digital media and technology on their purchasing habits.

III. Research Methodology:

This study adopts a descriptive research design with a total of 120 respondents, consisting of 40 each from generations X, Y and Z. participants were chosen using convenience sampling and data was gathered through a Google forms questionnaire. The study focused on key consumer buying behaviour factors, namely perceived usefulness, perceived ease of use, perceived awareness, perceived enjoyment, perceived trust and perceived risk. The collected responses were analyzed using SPSS software, and chi-square tests were applied to examine the association between gender and these consumers buying behaviour factors across the different generational groups.

IV. Data Analysis And Interpretation:

Table No.1: Demographic Background of Respondents

Demography factors	Categories	No. of Respondents (n = 120)	Percentage
Gender	Male	60	50
	Female	60	50
Age category	Generation X	40	33.33
	Generation Y	40	33.33
	Generation Z	40	33.34
Monthly Income	Below Rs. 20,000	70	58.3
	Above Rs. 20,000	50	41.7
Time spend on digital platforms per day	Less than 1 hour	24	20
	1 -2 hours	32	26.7

	2 – 3 hours	38	31.6
	More than 3 hours	26	21.7

Source: Primary Data

The demographic profile shows an equal gender distribution among the 60 respondents, with each generation (X, Y, Z) equally represented at roughly 33%. A majority of respondents (58.3%) have a monthly income below ₹20,000. Regarding digital platform usage, most participants (31.6%) spend 2–3 hours daily online, indicating moderate digital engagement across the sample.

Table No. 2: Most Preferred Products of Different Generations and Buying Mode

PARTICULARS	ONLINE		OFFLINE		BOTH	
	NO'S	%	NO'S	%	NO'S	%
GENERATION X (40 RESPONDENTS)						
Home appliances and electronics	12	30%	24	60%	4	10%
Health and wellness products	14	35%	20	50%	6	15%
Financial products	6	15%	30	75%	4	10%
Branded clothing	16	40%	18	45%	6	15%
GENERATION Y (40 RESPONDENTS)						
Tech gadgets	22	55%	4	10%	14	35%
Eco-friendly and sustainable products	26	65%	10	25%	4	10%
Trendy fashion and personal care items	30	75%	6	15%	4	10%
Digital services	16	40%	6	15%	18	45%
GENERATION Z (40 RESPONDENTS)						
Fashion and fast-moving trendy items	34	85%	2	5%	6	15%
Social media-linked products (influencer brands)	38	95%	2	5%	-	-
Beauty, skincare, and personal care	28	70%	10	25%	2	5%
Eco-conscious and inclusive brands	32	80%	8	20%	-	-

Source: Primary Data

The following interpretation highlights the distinct product preferences and buying modes of Generations X, Y, and Z, based on responses collected from 120 respondents across the three groups.

Generation X (Aged 44–59): Generation X shows a clear preference for offline shopping, especially for essential and high-value products. A majority buy home appliances (60%) and financial products (75%) through offline channels, highlighting their trust in personal interaction and traditional purchasing. However, a moderate shift toward online platforms is seen in branded clothing (40%) and health products (35%), suggesting that this generation is slowly adapting to digital buying methods.

Generation Y / Millennials (Aged 28–43): Millennials are digitally driven but flexible, showing strong preference for online shopping across product categories. A large share buys trendy fashion (75%), eco-friendly goods (65%), and tech gadgets (55%) online. Some also opt for a hybrid model, especially in digital services, reflecting their comfort with both online convenience and occasional offline experiences. Their choices are influenced by values like sustainability and tech-integration.

Generation Z (Aged 13–27): Gen Z is the most digitally native and trend-oriented generation. The majority prefers online shopping for fashion (85%), beauty (70%), and especially social media-linked products (95%), indicating a strong influence of influencers and digital content. They rarely use offline or hybrid options, showing a clear shift towards mobile-first, social media-driven purchasing behavior, with a strong focus on eco-conscious and inclusive brands.

Table No. 3: Association Between Consumer Buying Behaviour Factors and the Attitudes of Different Generations

Null Hypothesis: There is no significant association between Consumer Buying Behaviour Factors and the Attitudes of Different Generations and gender of the respondents.

Factors	Gender	Response (n=120)			χ^2 value	d.f.	p value
		Low	Moderate	High			
Perceived Usefulness	Male	10	22	28	11.429	4	.022 Significant at 5% level
	Female	16	20	24			
Perceived Ease of Use	Male	8	20	32	17.460	4	.001 Significant at 5% level
	Female	12	22	28			
Perceived Awareness	Male	8	30	22	16.237	4	.001 Significant at 5% level
	Female	10	24	26			

Perceived Enjoyment	Male	4	26	34	1.233	4	.540 Insignificant
	Female	8	24	28			
Perceived Trust	Male	0	28	32	18.013	4	.000 Significant at 5% level
	Female	10	30	20			
Perceived Risk	Male	4	18	38	15.093	4	.002 Significant at 5% level
	Female	8	18	34			

Source: Primary Data

The results of Table No. 3 indicate that there is a significant association between most consumer buying behaviour factors and the attitudes of different generations with respect to gender. Factors such as perceived usefulness ($\chi^2 = 11.429$, $p = 0.022$), perceived ease of use ($\chi^2 = 17.460$, $p = 0.001$), perceived awareness ($\chi^2 = 16.237$, $p = 0.001$), perceived trust ($\chi^2 = 18.013$, $p = 0.000$) and perceived risk ($\chi^2 = 15.093$, $p = 0.002$) were found to be significant at the 5% level, showing that these factors strongly influence consumer attitudes across generations and differ between male and female respondents. However, perceived enjoyment ($\chi^2 = 1.233$, $p = 0.540$) was found to be insignificant, implying that enjoyment does not significantly vary across generations or gender in shaping consumer buying behaviour. Overall, the findings suggest that consumer place more importance on usefulness, ease, awareness, trust and risk while making purchase decisions, whereas enjoyment plays a relatively lesser role.

V. Findings And Discussions:

Based on the findings, the study shows that each generation has distinct buying preferences.

- Generation X prefers offline shopping, especially for essential and high-value items, due to their trust in personal interaction. Generation Y (Millennials) prefers online shopping for fashion, tech, and eco-friendly products but also uses a hybrid approach. Generation Z is highly digital, driven by social media and influencer trends, with a strong preference for online shopping, especially for fashion and beauty.
- The Chi-square analysis reveals that consumer buying behaviour factors such as perceived usefulness, perceived ease of use, perceived awareness, perceived trust and perceived risk showed a significant association with gender across different generations, while perceived enjoyment was not significant. This suggest that consumers, irrespective of generation, give more importance to practical aspects like usefulness, convenience, awareness, trust and risk in their buying decisions were as enjoyment plays a relatively minor role. The findings highlight that marketers should prioritize strategies that enhance trust, awareness and ease of use, while treating enjoyment as an additional, rather than central factor.
- Segmentation by Generation and Gender is crucial for effective targeting. Marketers should design customized campaigns based on generational values (e.g., trust for Gen X, flexibility for Gen Y, and trendiness for Gen Z) and gender-specific messaging where relevant. Online platforms should be optimized for Gen Z and Millennials, with interactive and influencer-led content, while offline or hybrid models should still cater to Gen X's preferences. Brands should emphasize tech innovation and eco-conscious practices to attract younger buyers, while maintaining customer service and credibility for older generations.

These findings highlight the need for generation-specific and gender-aware marketing strategies, ensuring businesses align their approaches with consumer preferences and behavioural influences.

The Modern Consumer Decision Journey:

Inspiration Over Need (Impulse Trigger):

Need Recognition → Social Influence Spark

Today's consumers, especially Gen Y and Z, don't always start with a "need." Scrolling through social media, influencer posts, and viral trends creates desire—even for things they didn't originally seek. Buying decisions are often emotion-led and trend-driven.

Scroll & Search (Digital Exploration)

Word-of-Mouth → Algorithm-Driven Research

Instead of relying on friends or relatives, consumers now trust Google reviews, YouTube unboxings, and influencer recommendations. The internet is their first and most trusted guide.

Swipe to Buy (Smart Financing)

Save First, Buy Later → Buy Now, Pay Later

Traditional saving before spending has been replaced by digital wallets, EMIs, credit cards, and BNPL (Buy Now, Pay Later) options. Financial convenience fuels impulsive and high-value purchases.

Try & Shift (Variety-Seeking Post-Purchase)

Evaluate After Use → Experience & Explore

Instead of evaluating the product long-term, today's consumers quickly move to the next new thing. Brand loyalty is weak; curiosity, aesthetics, and novelty drive constant switching and sharing.

VI. Conclusion:

The study shows clear generational differences in buying behaviour. Generation X prefers offline shopping and traditional values, while Millennials are flexible and digitally inclined. Generation Z is highly influenced by social media and prefers fast, trend-driven online purchases. Gender significantly influences perceived usefulness, perceived ease of use, perceived awareness, perceived trust and perceived risk factors, but not perceived enjoyment. Consumer decision-making has shifted from need-based to trend-inspired, from word-of-mouth to digital search, from savings to credit, and from loyalty to variety-seeking. Understanding these changes is key for brands to connect with today's diverse consumers.

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