

Design Project

Research Document

By - Riya Garg

Semester 6, March 2024



Mentors- Sandipan Bhattacharjee & Rajeev Kumar

UID, Karnavati University

www.riya-garg.com

Emerging trends in interactive storytelling and narrative design

What?

Interactive storytelling allows you to tailor content to individual preferences and choices. This fosters a stronger connection between the audience and the content, making it more relevant and meaningful to them.

How?

VR and AR technologies provide new dimensions to storytelling. Virtual reality can transport users to entirely different worlds, while augmented reality overlays digital elements onto the real world, creating interactive narratives.

Interactive Narratives

Traditional storytelling involves a linear progression where the audience is passive observers. However, the appearance of interactive storytelling has shifted this paradigm. With the rise of video games, virtual reality (VR), and augmented reality (AR), audiences are now active participants in the narrative.

Interactive narratives allow users to make choices that impact the story's development, creating a personalised and immersive experience. Video games like "The Walking Dead" and interactive films like "Bandersnatch" have pioneered this trend, blurring the lines between traditional storytelling and gaming.

What are the Latest Trends in Digital Storytelling and Narrative?

Dorothy K.

1. **Immersive Technologies:** Augmented Reality (AR), Virtual Reality (VR), and mixed reality were gaining momentum in digital storytelling. These technologies provide immersive experiences, allowing users to engage with narratives in new and interactive ways.
2. **Interactive Content:** The rise of interactive content, such as interactive videos, quizzes, and branching narratives, allows users to participate in the storytelling process. This engagement enhances the overall user experience and can lead to more personalized narratives.
3. **Transmedia Storytelling:** Transmedia storytelling involves using multiple platforms to tell a single story. This approach encourages audience engagement across various media channels, such as social media, websites, podcasts, etc.
4. **User-Generated Content (UGC):** Encouraging users to contribute to the narrative through user-generated content remains a strong trend. This fosters community engagement and adds diversity to the storytelling experience.
5. **AI and Machine Learning Integration:** The use of artificial intelligence and machine learning to create dynamic, personalized narratives is on the rise. These technologies can analyze user behaviour and preferences to tailor content for individual users.
6. **Virtual Influencers and Characters:** The emergence of virtual influencers and characters, often powered by AI, presents new opportunities for storytelling. These characters can interact with audiences on social media platforms and contribute to brand narratives.
7. **Podcasting and Audio Storytelling:** The popularity of podcasts continues to grow, offering a platform for long-form storytelling and immersive audio experiences. Audio storytelling provides a unique way to engage audiences, especially those on the go.
8. **Data-Driven Narratives:** Utilizing data to inform and shape narratives is becoming more prevalent. Brands and content creators leverage data analytics to understand audience preferences and create more targeted and relevant stories.

9. **Social Media Stories:** The format of ephemeral content on platforms like Instagram, Snapchat, and Facebook Stories continues to be a significant trend. These short-lived, visually appealing stories capture user attention concisely and engagingly.
10. **Sustainability and Social Impact Storytelling:** There is a growing emphasis on storytelling that addresses social and environmental issues. Brands are incorporating narratives that highlight their commitment to sustainability and social responsibility.

In light of the swiftly changing digital environment, it is advisable to stay abreast of recent advancements in technology, media, and storytelling to grasp the prevailing trends in digital narrative.

The Science of Snacking

Harvard

A snack is generally defined as any food eaten between main meals. Many people snack at least once during the day. Some studies found that snacking not caused by hunger was associated with a higher overall calorie intake. Emotional eaters and those under psychological stress have been found to eat more energy-dense snacks, especially those higher in sugar and fat.

Benefits

1. Provides a boost of energy if several hours pass between meals and blood glucose levels drop.
2. Helps curb your appetite to prevent overeating at the next meal.
3. Provides extra nutrients when choosing certain snacks like fresh fruit or nuts.
4. Can help maintain adequate nutrition if one has a poor appetite but cannot eat full meals, such as due to an illness.

Pitfalls

1. Unwanted weight gain if portions or frequency of snacking is too much, adding excess calories.
2. Too much snacking can reduce hunger at meal times or cause one to skip a meal entirely, which increases the risk of losing out on important nutrients.

3. Regular intake of ultra-processed hyper-palatable snacks that contain added salt, sugar, and fats but that are low in nutrients and high in calories can increase a preference for these types of foods, leading to a change in eating behaviours and diet quality (e.g., a higher intake of hyper-palatable snacks along with a decreased intake of healthful foods).

Snacking Behavior and Association with Metabolic Risk Factors in Adults from North and South India

The Journal of Nutrition, Feb 2023

There is increased demand for packaged snacks and beverages in India. Comparison between different countries shows that Indian snacks can be unhealthy because of high sodium content, energy density, total sugar content, and use of poor-quality edible oil. Consumption of such foods adds to empty calories and is associated with high BMI, increased waist circumference, elevated levels of plasma glucose, and blood pressure. The country is facing public health problems of micronutrient deficiencies and diet-related metabolic disorders

Snack food consumption

(Based on survey with participants)

The foods were as follows:

1. bakery products (patties, khari, etc.)
2. packaged salty snacks (chips, kurkure, etc.)
3. fried snacks (vada, samosa, etc.)
4. biscuits
5. instant noodles (pasta, noodles, etc.)
6. sweet snacks (rasgulla, laddoo, etc.)
7. sugar-sweetened and/or aerated beverages (cola, Pepsi, etc.)
8. tea/coffee
9. sugar-sweetened fruit juice

10. fruits

These were further grouped into 3 food groups, which were used for analysis namely, snacks/unhealthy food (1–6); beverages (7-9) and fruits/healthy food(10)

Factors, preference, and reasons for snack consumption					
Snack consumption ¹		Vizag (n = 4204) n (%)		Sonipat (n = 4558) n (%)	
Preferences ² n (%)	Residence	Rural (n = 2501)	Urban (n = 1703)	Rural (n = 2414)	Urban (n = 2144)
Time	Morning	85 (4.5)	394 (24.2)	672 (60.8)	909 (85.2)
	Afternoon	352 (18.7)	218 (13.4)	667 (60.4)	242 (22.7)
	Evening	1797 (95.3)	1572 (96.7)	303 (27.4)	339 (31.8)
	Late-night	286 (15.2)	216 (13.3)	45 (4.1)	9 (0.8)
	Midnight	1 (0.1)	(0.0)	(0.0)	(0.0)
Place preferred to eat	Home	1666 (88.3)	1269 (78.0)	948 (85.8)	1006 (94.3)
	Work place	52 (2.8)	302 (18.6)	119 (10.8)	49 (4.6)
	Out of home	168 (8.9)	55 (3.4)	38 (3.4)	12 (1.1)
Source	Home	1697 (90.0)	495 (30.4)	91 (8.2)	156 (14.6)
	Street vendor	1050 (55.7)	1110 (68.3)	909 (82.3)	900 (84.3)
	Restaurant	13 (0.7)	75 (4.6)	169 (15.3)	158 (14.8)
Activities performed	Working	22 (1.2)	223 (13.7)	150 (13.6)	47 (4.4)
	Watching TV	1349 (71.5)	1389 (85.4)	551 (49.9)	754 (70.7)
	Travelling	122 (6.5)	785 (48.3)	123 (11.1)	66 (6.2)
	With family/friends	1249 (66.2)	1421 (87.4)	254 (23.0)	219 (20.5)
Factors considered	Price	832 (44.1)	1311 (80.6)	243 (22.0)	544 (51.0)
	Brand	259 (13.7)	990 (60.9)	368 (33.3)	255 (23.9)
	Taste	1797 (95.3)	1397 (85.9)	974 (88.1)	707 (66.3)
	Advertisement	49 (2.6)	310 (19.1)	40 (3.6)	(0.0)
	Free-gift/offer	290 (15.4)	56 (3.4)	106 (9.6)	52 (4.9)
	Sugar/salt/fat	274 (14.5)	450 (27.7)	75 (6.8)	58 (5.4)
	Others	4 (0.2)	65 (4.0)	1 (0.1)	5 (0.5)
	Local	717 (38.0)	786 (48.3)	149 (13.5)	307 (28.8)
Brand preferred	National	125 (6.6)	565 (34.7)	319 (28.9)	66 (6.2)
	Foreign	2 (0.1)	7 (0.4)	3 (0.3)	(0.0)
	No preference	472 (25.0)	132 (8.1)	238 (21.5)	190 (17.8)
Top reasons	Unaware	570 (30.2)	136 (8.4)	396 (35.8)	504 (47.2)
	Hunger	996 (52.8)	1025 (63.0)	455 (41.2)	260 (24.4)
	Craving	1314 (69.7)	1399 (86.0)	262 (23.7)	282 (26.4)
	Availability	417 (22.1)	1006 (61.9)	718 (65.0)	478 (44.8)
	Like it	995 (52.8)	664 (40.8)	432 (39.1)	515 (48.3)
	It is healthy	83 (4.3)	357 (22.0)	145 (13.1)	12 (1.1)
	Others	61 (3.2)	125 (7.7)	(0.0)	6 (0.6)

¹ Snacks (savory + sweet) consumption.

² All the above questions are multiple choice question and therefore total percent does not add to 100.

Results

Half of the study participants were women and resided in rural locations. **Savory snacks** were the most preferred; 50% of the participants consumed them 3–5 times/week. Participants preferred to purchase out-of-home prepared snacks and eat them at home (86.6%) while watching television (69.4%) or with family/friends (49.3%). **The reasons for snacking were hunger, craving, liking, and availability.** Snack consumption was higher in Vizag (56.6%) than in Sonipat (43.4%), among women (55.5%) than men (44.5%), and the wealthiest; it was similar in rural–urban locations. Frequent consumers of snacks had 2 times higher likelihood of having obesity (OR: 2.22; 95% CI: 1.51, 3.27) central obesity (OR: 2.35; 95%

CI: 1.60, 3.45), and higher fat percentage (OR: 1.92; 95% CI: 1.31, 2.82) and higher fasting glucose levels ($r=0.12$ (0.07–0.18) than consumers who consumed snacks rarely (all $P \leq 0.05$).

Conclusions

Snack (savoury and sweet) consumption was high among adults of the sexes in both urban and rural locations of north and south India. This was associated with a higher risk of obesity. There is a need to improve the food environment by promoting policies for ensuring healthier food options to reduce snacking and associated metabolic risks.

A study to assess the snacking pattern among adolescents and young adults and its effect on the meal pattern and overall nutritional status

International Journal of Home Science 2021

Approximately 50% of the participants who skipped breakfast were known to consume snacks on a regular basis. The most common reason found for snacking was cravings in 62% of the participants followed by boredom (57.7%), stress (44.4%), tiredness (36.6%), as a reward (33.8%) and sadness (30.3%).

Table 4: Correlation between snacking and skipping of meals

Skipping of meals	Snacking in between the meals		p value
	Yes	No	
Skipping of breakfast	44.4%	55.6%	0.000
Skipping of lunch	15.5%	84.5%	0.283
Skipping of dinner	16.2%	83.8%	0.190

Conclusion

There was a significant positive relationship between snacking and skipping breakfast. The frequency of consumption of unhealthy snacks was higher in males as compared to females. It was also seen that the frequency of consumption of healthy snacks was higher in females and lower in males. The tendency to consume snacks when in stress, while having a craving or due to sleeplessness had caused an increase in the overall energy, carbohydrate and fat consumption.

The India Snacking Report

Godrej Yummiez

The Indian consumer's decision to consider, buy and consume snacks is no longer based on the parameters of just taste and ease or convenience. Today, the Indian household is looking for assurances across the five pillars – STTEM – safety, technology, taste, ease, and mood uplifter. Needless to say, the safety component is becoming more pronounced. The quality of ingredients, process of preparation, storage, use of oil & preservatives, packaging, and delivery, are all contributing towards a consumer's confidence in not just the brand but also in the category at large.

40% of Indians believe that snacking helps come out of boredom and uplifts mood. When probed further, we found that around 70% of the respondents felt satisfied, happy and excited after consuming snacks.

43% of Indians are pro-snacking as they believe that main course meals are too heavy on the stomach. Amongst those who connect snacking with their mood, 72% confessed to snacking more when they were happy whereas 56% agreed to snack more when they were sad.

Parent's View on Snacking

66% of male and 71% of female parents believe that there is no fixed time for snacking. More than half of India's parents consider snacks as mini-meals. More than a third of India's parents have started considering snacks as a full meal.

Misleading Healthy FMGC Products

The Indian Express, The Economic Times, Business Today

The Consumer Complaints Council (CCC) of Advertising Standards Council of India (ASCI) evaluated 290 complaints in the month. Amongst the 193 advertisements which it held misleading, 154 belonged to the healthcare category, 18 to the education category, eight to the food and beverages category, two to personal care and 11 were from other categories, ASCI said in a statement today.

Bournvita

- NCPCR said it has received a complaint alleging that Bournvita promotes itself as a health drink improving children's growth but it contains a high percentage of sugar that might impact a child's health.
- The Commission observes that your product's labelling, packaging, display and advertisement claims are misleading for the general public. Further, your product's labelling and packaging also fails to acknowledge the correct information regarding the content used in the product – Bournvita," the commission said in its notice.

Too Yumm

- The advertising sector regulator found that RP-Sanjiv Goenka Group's Too Yumm brand's advertisement contravened ASCI guidelines on advertising of food and beverages.
- "The advertisement's claims, 'Eat Lot and Fikar Not' and 'Eat anytime, anywhere, as much' encourage excessive consumption and product if overindulged as suggested in the TVC, it can add to calories,fat calories and sodium," it said.

Tata Chemicals

1. In the Tata Chemicals Ltd advertisement pertaining to "Tata Nx Zero Sugar" the consumer complaints council of the ASCI opined that the term "Zero Sugar", when read in conjunction with the claim "Beneficial sugar for people with Diabetes", is contradictory and misleading by ambiguity and implication.

2. Though the advertiser claims "zero sugar" in the advertisement, the advertiser's own communication on their website etc. presents their product as a "low-calorie sugar".
3. Also the advertisement's claim, "low-calorie sweetener" may hold true for the product, the claim, "lactose is a low-calorie sweetener", was misleading by ambiguity as by the advertiser's own submission, lactose is only an excipient in the product, the main active being Stevia.

10 Best Snacks Brands in India

Indian Retailer

1. **Haldiram's**
traditional Indian snacks. Known for its quality and taste, Haldiram offers a wide range of products including nankeens, sweets, and ready-to-eat snacks, solidifying its position as a leader among snack brands in India.
2. **Bikaji**
The brand is known for its bold and unique flavour combinations, like peri-peri bhujia and wasabi peas, catering to adventurous palates while staying true to its roots. With its wide variety of snacks, both sweet and savoury, traditional and innovative, Bikaji caters to a diverse range of palates and preferences.
3. **Kurkure by PepsiCo**
Kurkure, PepsiCo's flagship snack brand, has revolutionized the Indian snack market with its unique and bold flavours. It stands out as a top snack brand, offering a variety of products that cater to the evolving tastes of Indian consumers.
4. **Bingo! by ITC**
The brand's focus on quirky flavours and fun packaging has resonated well with the younger demographic.
5. **Epigamia**
Epigamia has emerged as a popular choice among health-conscious consumers, offering a range of yoghurt-based snacks that are both delicious and nutritious. Its commitment to using natural ingredients has set it apart in the snack market.

Explore their smoothie range for a quick and nutritious breakfast or post-workout boost. Indulge in protein-packed Greek Yogurt Bowls, customizable with your favourite toppings. Even enjoy

plant-based yoghurt for a dairy-free option. Epigamia uses only real, locally sourced ingredients, ensuring the purest and healthiest snacking experience.

6. Nutty Yogi

Healthy and delicious snacks made with natural ingredients, like trail mixes and energy bars. known for its health-oriented snack options, and focuses on bringing wellness to the snack aisle.

7. Paper Boat

range of fruit drinks and snacks using traditional ingredients and flavours. Aam Papad, Roasted Seeds, Dry Fruit Chikki

The snacks companies in India are not only catering to traditional taste preferences but are also innovating to meet the demands of a health-conscious and diverse consumer base.

There's a growing demand for snacks that are both healthy and flavorful, pushing brands to explore new ingredients and production methods. The increasing popularity of organic and natural products opens up new market segments. Additionally, the rise of e-commerce and digital marketing offers snack brands novel ways to reach and engage with consumers.

Nestle Health Products

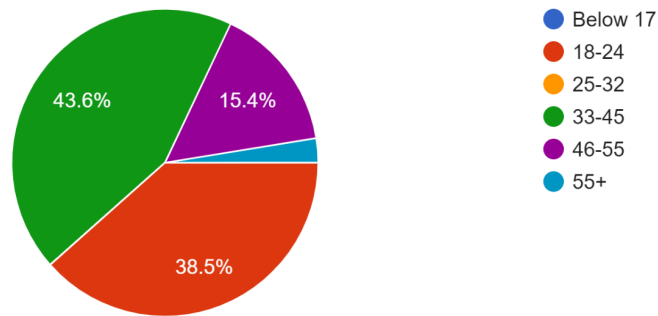
1. **AlfaMino** is a dietary supplement that claims to improve mental focus, memory, and alertness.
2. **Alfare** is a formula for infants with mild or moderate cow's milk protein allergy.
3. **Althera**: infant formula that provides first-line relief from the symptoms associated with mild-moderate cows' milk protein allergy (CMA) and/or multiple food protein allergies.
4. **Boost**: nutritional drinks & shakes
5. **BRAINXPRT** is a breakthrough innovation which has proven to have a positive effect on memory and cognitive function in patients with Mild Cognitive Impairment.
6. **Celltrient**: food supplements help address three of the main drivers of Age-Associated Cellular Decline (AACD).
7. **Compleat**: nutritionally-complete tube-feeding formula
8. **Nutren**

My Survey

Riya Garg

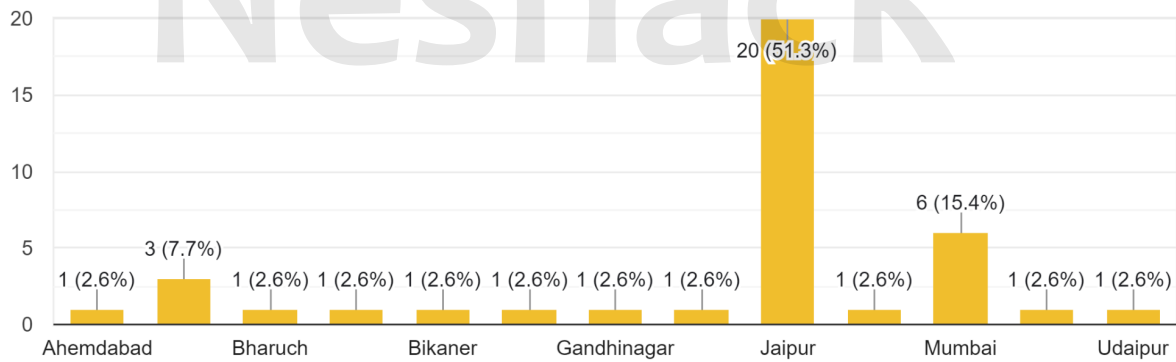
Age

39 responses



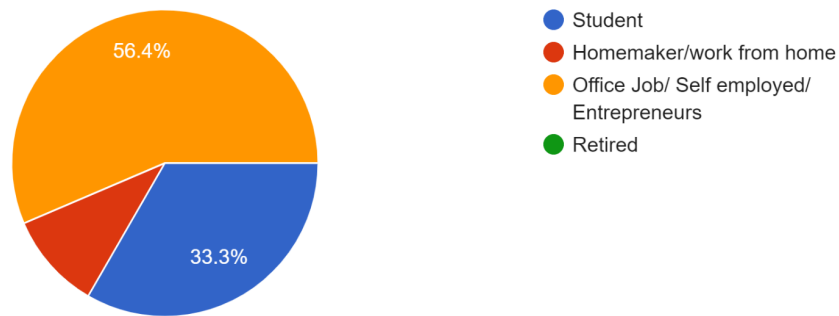
City (Residence)

39 responses



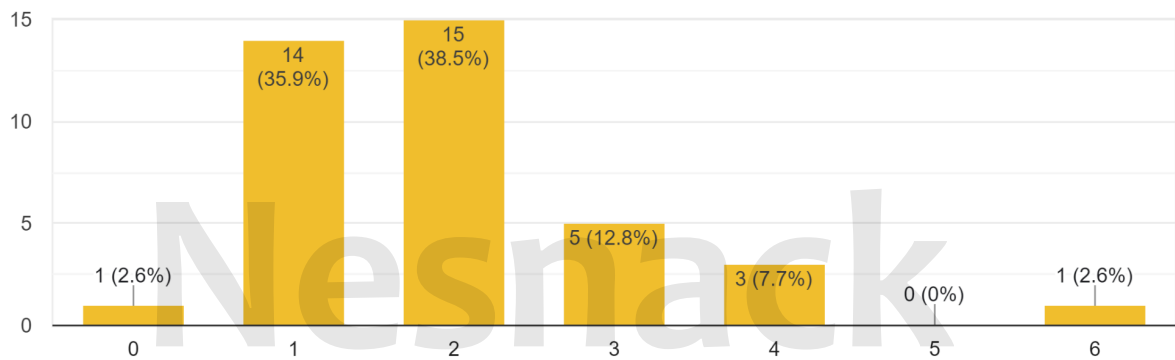
Working Status (Choose what suits best)

39 responses



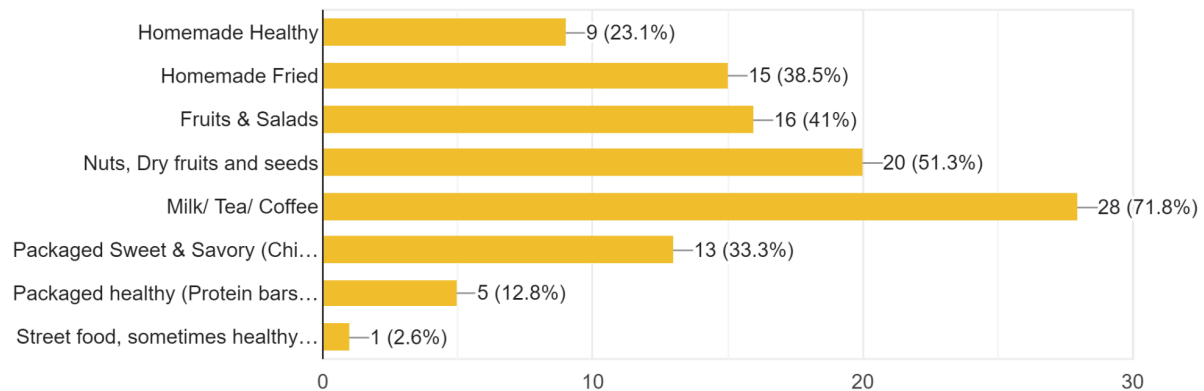
How often I snack in a day

39 responses



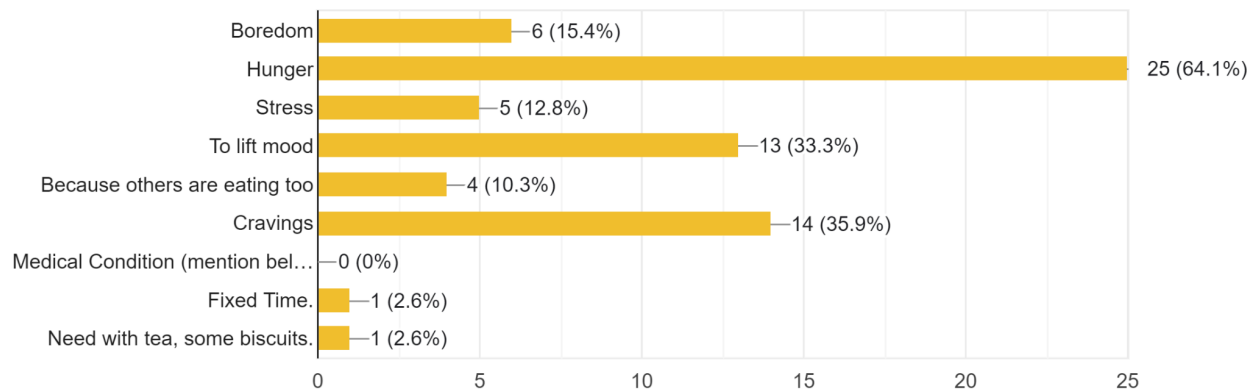
I usually eat these snacks- (You can select more than one)

39 responses



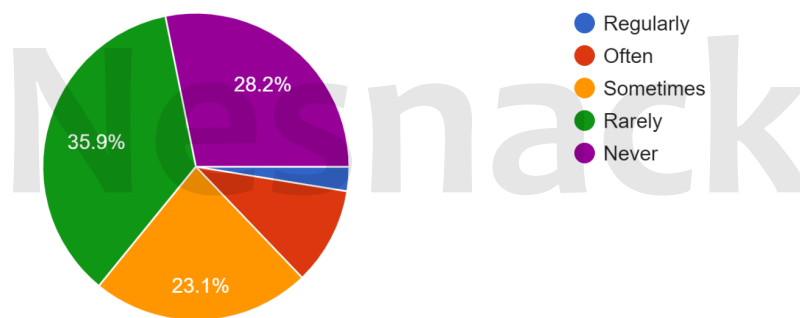
What motivates you to snack?

39 responses



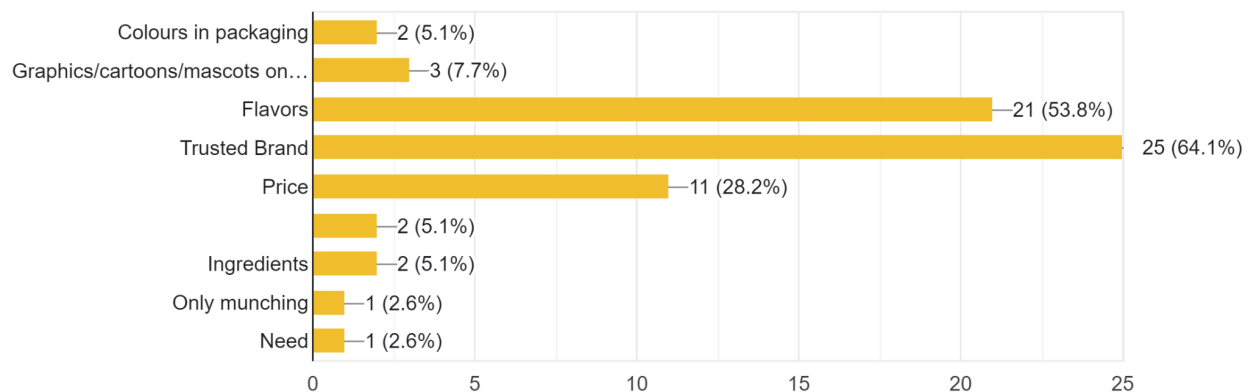
I skip meals because of snacks

39 responses



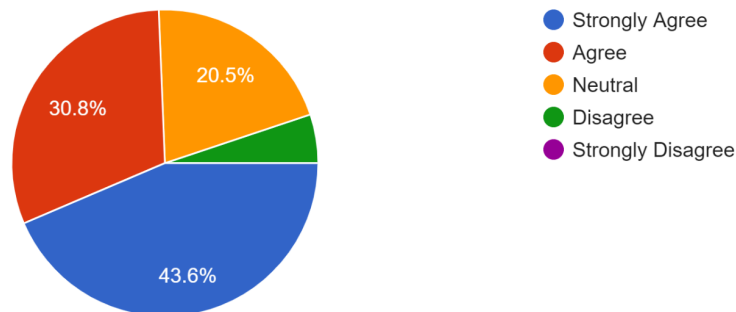
My motivations to buy a product are

39 responses



I have considered buying healthy snacks

39 responses



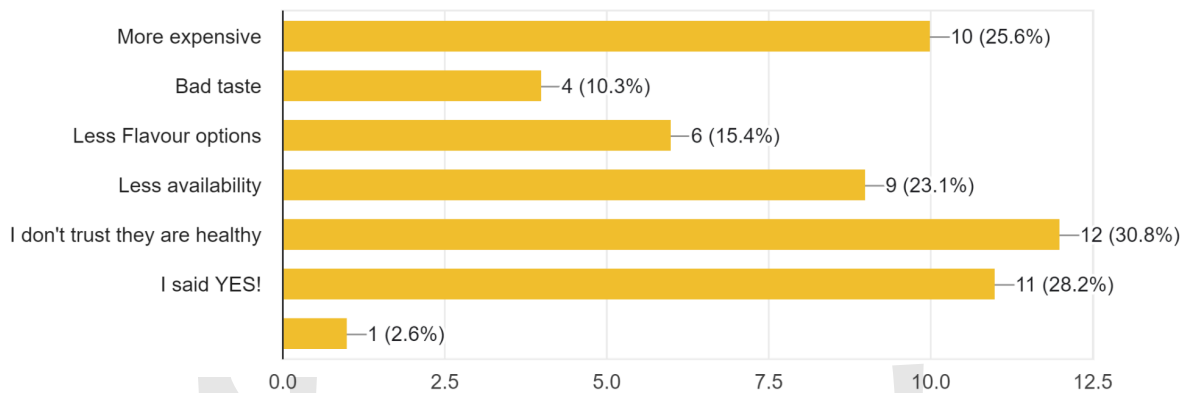
These are some of my favourite products/brands for healthy snacking

- Digestive biscuits
- Maggi
- Non fried
- Parle g, nice biscuit
- Snackible
- Mostly are local msde
- Moong daal etc
- Knorr
- Peanuts, makhana
- Jabsons roasted namkeen, chana, Nutrigo multi grain biscuits
- Amul dark chocolate
- popcorn, amla candy, makhane, protien bars, healthy category chips, Patra
- Britannia
- Some baked goods but nothing specific
- Cashews, Chocolates, Chips
- Britannia, Lay's
- Patanjali
- Nutrigo, Parle, Britannia

- Max protein
- Logi
- Cakes
- Evolve Snacks, To Be Honest

I do not buy/eat healthy snacks because

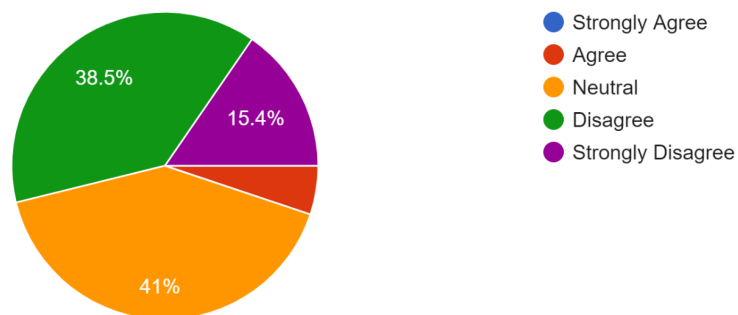
39 responses



Nesnack

I trust a food product is as healthy as they advertise

39 responses



My reason why

- I prefer healthy snacks
- Quality is poor
- Health
- You never know the hidden ingredients

- We eat healthy food
- It's not true
- Packing is a different matter
- Preservatives are everywhere
- Na
- Because the truth is not revealed
- Marketing
- Checking the nutritional value
- Advertising is manipulation
- No specific answer
- Eat healthy keep healthy
- Companies make products that taste good rather than healthy products.
- To get energy
- Advertisements often mislead
- Its not same all the times as shown in ads
- No package food is healthy as mentioned
- Not always convinced that the snack being claimed healthy is actually healthy.
- Most of the times products are quite different from what they are advertised to be ! And secondly I cannot believe in a products healthy factor just by its advertisement....unless I see the nutrients chart on the packaging !
- coz they contain preservatives
- misleading ads, preservatives, news
- All do marketing just to promote sales
- Ads do not disclose all the ingredients n the process of making the product
- Idk. Fake marketing is everywhere.
- There's almost always something about the food that some doctor somewhere would not recommend
- I mean it depends on the cravings not particularly on the brand
- Packed food has preservatives and other chemicals.
- I love Britannia and Lay's because they focus on quirky flavours and fun pakaging.
- Not always
- There is no proof that whatever they are offering is healthy?!

- Sometimes what they advertise is what they provide with, but certain brands falsify and advertise just for sale. So I strongly feel it is better to read the nutrition content on the packaging before buying something.
- preservatives
- They can be gimmicks.
- Sab dhong hai
- Na
- May be due lack transparency about their ingredients or sourcing.....

Nesnack

References:

1. Izryadnov, A. (2023, November 21). Navigating Narratives: Exploring new trends in storytelling. Medium.
<https://medium.com/@alexanderizryadnov/navigating-narratives-exploring-new-trends-in-storytelling-db38b825e9c3>
2. K, D. (2023, November 30). What are the Latest Trends in Digital Storytelling and Narrative?
<https://www.linkedin.com/pulse/what-latest-trends-digital-storytelling-narrative-dorothy-kwamboka-ugcsf/>
3. The science of snacking. (2023, February 2). The Nutrition Source.
<https://www.hsph.harvard.edu/nutritionsource/snacking/#:~:text=The%20most%20popular%20reasons%20for,25%25%20sometimes%20skipped%20meals%20entirely.>
4. Ganpule, A., Dubey, M., Pandey, H., Venkateshmurthy, N. S., Green, R., Brown, K. A., ... & Mohan, S. (2023). Snacking behavior and association with metabolic risk factors in adults from north and south India. *The Journal of Nutrition*, 153(2), 523-531.
5. Jogi, K. R., & Battalwar, R. (2021). A study to assess the snacking pattern among adolescents and young adults and its effect on the meal pattern and overall nutritional status. *International Journal of Home Science*, 7(2), 116-120.
6. https://godrejyummiez.in/pdf/the_india_snacking_report.pdf
7. Business Today Desk. (2023, April 26). Bournvita row: NCPCR asks health drink brand to withdraw misleading ads, packaging labels. Business Today.
<https://www.businesstoday.in/latest/trends/story/bournvita-row-ncPCR-asks-health-drink-brand-to-withdraw-misleading-ads-packaging-labels-378922-2023-04-26>
8. Express News Service. (2023, April 27). Withdraw 'misleading' Bournvita ads, packaging and labels, says NCPCR. The Indian Express.
<https://indianexpress.com/article/india/bournvita-sugar-content-row-ncPCR-health-drink-brand-remove-ads-8577442/>
9. Pti. (2018, May 10). ASCI pulls up HUL, Ola, Vodafone, others for misleading ads. The Economic Times.
<https://economictimes.indiatimes.com/industry/services/advertising/asci-pulls-up-hul-ola-vodafone-others-for-misleading-ads/articleshow/64110137.cms?from=mdr>
10. Mail Today Bureau. (2017, October 17). Hindustan Unilever, Tata Chemicals, ITC under fire for misleading advertisements. Business Today.
<https://www.businesstoday.in/latest/corporate/story/hindustan-unilever-tata-chemicals-itc-under-asci-scanner-for-misleading-ads-91623-2017-10-17>
11. 10 best snacks brands in India. (2024, March 29). Indian Retailer.
<https://www.indianretailer.com/article/retail-business/retail/top-10-snack-brands-india-flavorful-journey-through-indian-snack>
12. Von Känel, S. (2020, October 7). Nestlé Brand Identity and Communication Standard. Imagine Nestlé.
<https://www.imaginenestle.com/projet/nestle-brand-identity-and-communication-standard/>
13. Google Form for Survey <https://forms.gle/iRP8ctSBf6Lfuyum7>