

## A RESEARCH REPORT: BEHAVIORAL ANALYSIS ON PURCHASING ENERGY DRINKS AND THEIR IMPACT ON HEALTH

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### Abstract:

*This research explores consumer behavior in purchasing energy drinks and evaluates their health impacts. The study combines data from surveys, focus groups, and a review of existing literature to identify key purchasing drivers, such as lifestyle demands, marketing influence, and demographic trends. Results indicate that younger consumers and individuals with high workloads are more likely to purchase energy drinks, often driven by convenience and perceived performance enhancement. In this we have also done bibliometric analysis and found variables that affects consumption of energy drink.*

**Keywords:** *Purchasing Behavior, Consumption Patterns, Income, Impact On Health, Consumer Buying Behaviour.*

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### Introduction:

Energy drinks are beverages which include ingredients such as caffeine, sugar and sometimes other ingredients such as taurine, guarana. These drinks are often marketed as they provide a quick energy boost, improve focus and enhance physical performance. Energy drinks are often marketed to younger consumers. This demographic includes students, professionals, service providers, business and others. Advertising plays a crucial role in creating brand loyalty between consumers. They are easily available in convenience stores, supermarkets or online. Consumers also prefer energy drinks as they are easily available. As compared to other drinks, energy drinks are a little expensive. Generally, the price of energy drinks is affordable to the middle income class group while it may seem to be expensive and costly for the low income group. If energy drinks are consumed in a

medium and average manner then it might show a boost in energy levels, improved mental focus or concentration and many more. But it might be hazardous if consumed more. It can affect health by high blood pressure, gastrointestinal distress, Insomnia, increased stress levels, etc.

### Literature Review:

**1. Jacob, S., Tambawel, J., Trooshi, F. M., & Alkhoury, Y. (2013)** The study aimed to understand the preferences of students in consuming energy drinks over nutritional drinks. Majority of students were consuming energy drinks due to a boost in energy levels, improving academic performance. The main motivation behind consuming energy drinks were increased in energy level and reduction in stress levels or fatigue especially during physical exercise. The study concludes by recommending the need to increase

awareness campaigns and also increase health education by making people aware about its impact on health.

2. **Ali, F., Rahman, M. T. A., Zainudin, Z. H., & Thabet, O. (2023)** This study focused to investigate consumer buying behavior towards consumption of two types of drinks, i.e., artificial and herbal energy drinks. Factors such as lifestyle, age, preferences, price and customer trust impacts decisions of consumers in purchasing energy drinks. Large proportion of consumers prefer to buy artificial energy drinks in comparison to herbal energy drinks. The study also found that age, marital status, educational qualifications, occupation and income have an important relationship with buying behaviour of consumers towards these both drinks.
3. **Kobik, W., & Aryee, P. A. (2024)** This study aimed to examine the prevalence and consumption patterns, perceptions and factors associated with energy drinks consumption among the youth of the Tamale Metropolis. The research showed that the majority of the people currently consume energy drinks due to lack of knowledge of ingredients present in it, benefits and harmful effects of energy drinks. Various factors were independently associated with consumption of energy drinks including age, marital status, volume of work, educational qualifications, knowledge of energy drinks and availability of energy drinks in public gatherings. The study concludes by suggesting to make awareness and spread knowledge of energy drinks between different demographics.
4. **Rambe, P., & Jafeta, R. J. (2017)** This study aimed to understand the impact of social media advertising on high energy drink preferences and consumption. This study highlighted the importance of social media advertising. Social media advertising has the capacity to influence consumers preference in relation to energy drinks, to create brand awareness

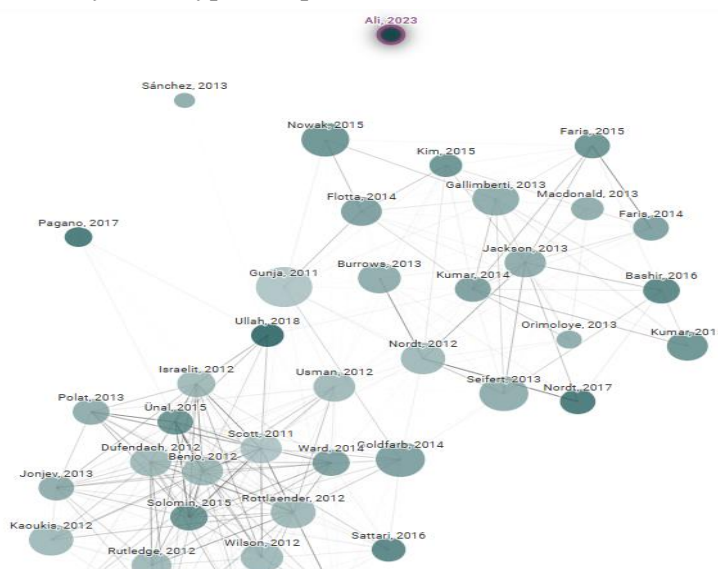
among consumers. The main focus of social media advertising is to shape consumers behavior. The study also gave an example of the brand 'Red Bull' which claims that after consumption of it, the person may feel enhanced in performance, boosts metabolism, etc. Therefore, it was clear that social media advertising plays a vital role in influencing the decision making power of consumers.

5. **Reissig, C. J., Strain, E. C., & Griffiths, R. R. (2009)** This study investigates intoxication of caffeine in energy drinks. There are different brands in which the content of caffeine ranges from an average of 50 mg to an alarming rate of 505 mg per can or bottle. While marketing energy drinks, it was seen that young males were targeted for enhancing performance, boosting energy levels and for other stimulant drug effects. The study also analysed that the continuous intake of caffeine can give rise to psychiatric disorders including anxiety problems, depression, alcohol dependence, panic disorder, etc. The study concludes that there is a rise in high caffeine consumption which may create a problematic situation in future.
6. **Malinauskas, B. M., Aeby, V. G., Overton, R. F., Carpenter-Aeby, T., & Barber-Heidal, K. (2007)** The study investigates the consumption habits of energy drinks among college students. Energy drink consumption is common among college students, with many using these beverages to increase energy, stay awake, or improve performance. The study also highlights potential health concerns, such as increased heart rate, sleep disturbances, and other negative effects. The study also noticed the main reason behind consuming energy drinks. Insufficient sleep was one of the most common reasons for consuming energy drinks. Also energy drinks were consumed for high energy levels, while completing projects and so on. Side effects such as

7. **Ishak, W. W., Ugochukwu, C., Bagot, K., Khalili, D., & Zaky, C. (2012)** This literature review aims to examine the psychological effects of energy drinks and their impact on the well-being and quality of life. This research shown that, consumer may feel enhanced in performance, increase in energy levels, improved focus and concentration but these positive impacts are for temporary only. There is no relation of energy drinks on the well-being of people. Hence there was no proof to support the claim that energy drinks improve well being of people and quality of life. The study concludes by suggesting to improve public awareness especially among youths about the side effects of energy drinks and also the amount of ingredients present in the energy drinks.

discounting strategies. Price discounting act as a hidden factor behind the consumption of energy drinks. Price discounting can be an important strategy for manufacturers to capture market but it may affect the health of people who get influenced by such types of price discounts.

**9. Muxiddinovna, I. M. (2022)** The study demonstrated that energy drinks, both alone and in combination with alcohol, have a significant impact on the metabolism of rats. The combination of energy drinks with alcohol altered metabolic functions more drastically than energy drinks alone, suggesting potential health risks when these substances are consumed together. Energy drinks and the combination of energy drinks with alcohol can affect the metabolism of rats. The rats that consumed both energy drinks and alcohol showed greater changes in their metabolism compared to those that drank energy drinks alone. This suggests that mixing these substances may have harmful effects on the body. The results highlight the need to be cautious about drinking energy drinks with alcohol, as it could lead to health problems. More research is needed to better understand these effects and how they might apply to humans.



**Research Gap:**

Many studies have been conducted on energy drinks. The fast paced lifestyles of people around the world have driven the demand for convenient, easy and readily available beverages that provide quick energy. Here, in this research we have tried to study behavioral analysis on purchasing energy drinks and their significant impact on health amongst the respondents.

**Research Objectives:**

1. To analyze the factors influencing consumer behavior in purchasing energy drinks.
2. To identify the health perceptions and concerns associated with energy drink consumption.
3. To evaluate consumer awareness regarding the ingredients and potential health risks of energy drinks.

**Research Hypothesis:****Hypothesis 1:**

1. Ho: There is no significant relationship between consumer demographics (age, gender, income) and the frequency of energy drink consumption.
2. H1: Ho: There is a significant relationship between consumer demographics (age, gender, income) and the frequency of energy drink consumption.

**Hypothesis 2:**

1. Ho: There is no significant impact of energy drink consumption on consumers' health perceptions and behaviors.

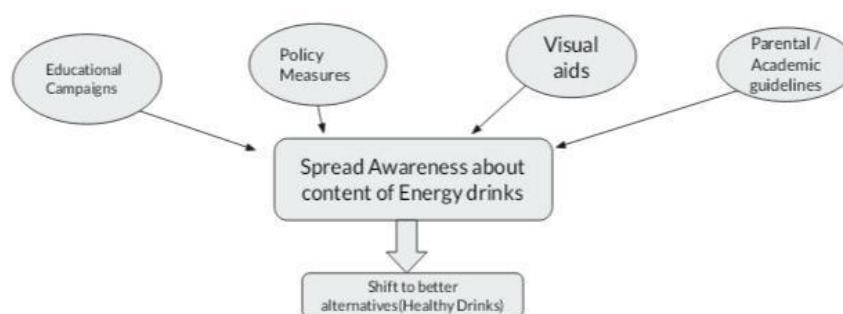
2. H1: There is a significant impact of energy drink consumption on consumers' health perceptions and behaviors.

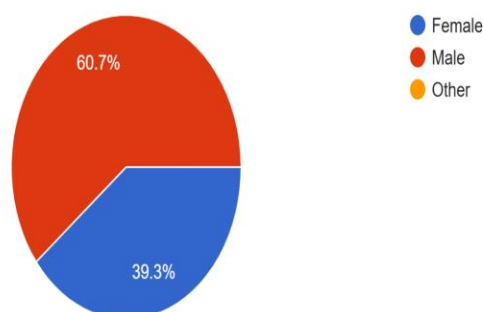
**Hypothesis 3:**

1. Ho: Awareness of health risks associated with energy drinks does not significantly influence consumption patterns.
2. H1: Awareness of health risks associated with energy drinks does not significantly influence consumption patterns.

**Research Methodology:**

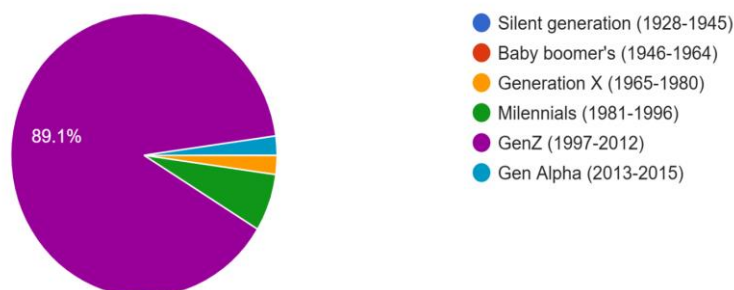
This study will adopt a mixed-methods approach, combining both quantitative and qualitative research techniques. A structured questionnaire will be used to collect primary data from a sample of energy drink consumers across various demographic groups. The survey will focus on consumption patterns, purchasing behavior, health perceptions, and awareness levels. Secondary data from research articles, reports, and health studies will supplement the primary data. Statistical tools like chi-square tests will be employed to test the hypothesis and identify key patterns. Additionally, focus group discussions will be conducted to gain in-depth insights into consumer motivations and concerns. The study aims to ensure reliability and validity by using stratified random sampling and triangulating data from multiple sources.

**Suggested Model :**

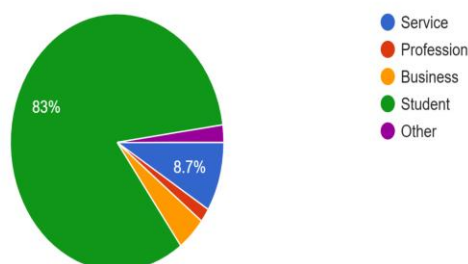
Gender  
229 responses


From the above chart, it can be seen that males (60.7%) consumes energy drinks more as compared to females ( 39.3%).

#### Data Analysis & Interpretation:

 Age  
229 responses


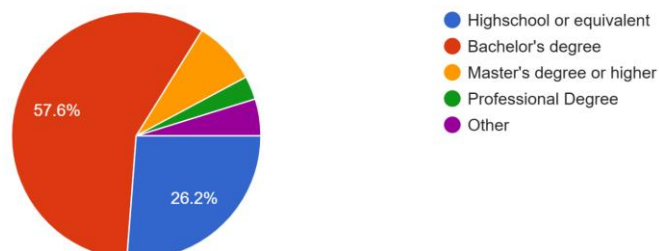
From the demographic data collected, we came to know that the large proportion of population in case of consumption of energy drink has been grabbed by GenZ(1997-2012) generation.

 Occupation  
229 responses


The chart shown below highlights that students (83%) are consuming energy drinks more than other occupations.

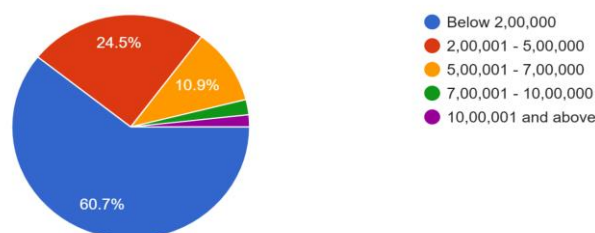
## Qualification

229 responses



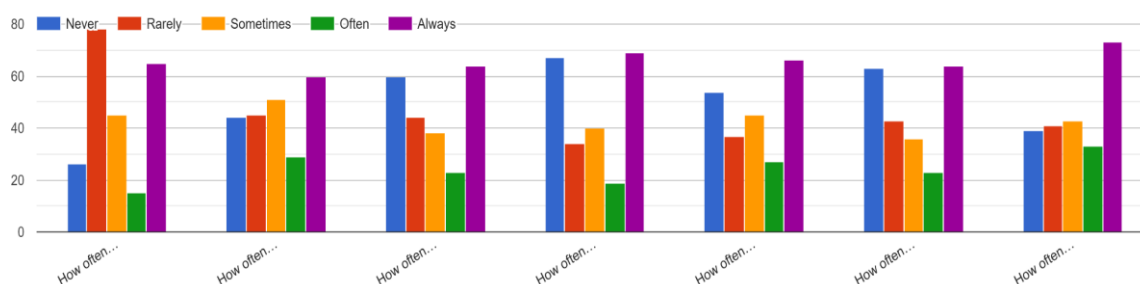
## Annual Income

229 responses

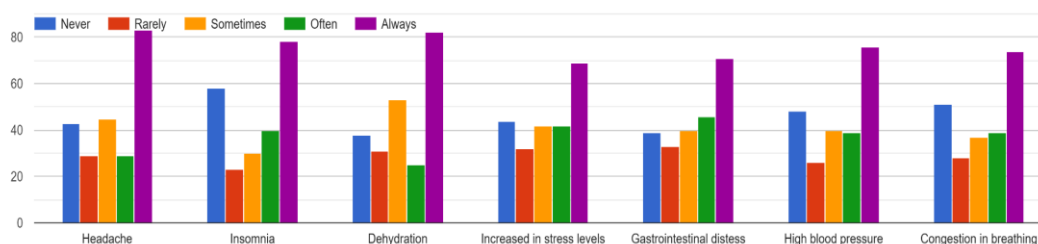


Most of the people consuming energy drinks have their income below 2,00,000.

Please rate the following parameters based on your experience of energy drinks.



Please rate the following parameters based on your experience of energy drinks on health and mental fitness.





From the graphical representation it can be clearly seen that continuous consumption of energy drinks have several impact on health such as headache, Insomnia, dehydration, increased stressed levels, gastrointestinal distress, high blood pressure and even congestion in breathing.

**Data Analysis:**
**Case Processing Summary**

		N	%
Cases	Valid	229	95.8
	Excluded <sup>a</sup>	10	4.2
	Total	239	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

**Cronbach's Alpha**      **N of Items**

**1.000**      **7**

**Reliability Statistics**

Cronbach's Alpha	N of Items
1.000	7

As per Andy field, if probability value is greater than 0.05, it indicates that the data is reliable and reluctant. Our reliability analysis of 229 respondent is 1.000 which indicates that our data is highly reliable and reluctant.

**Communalities<sup>a</sup>**

	Initial	Extraction
Taste	1.000	.989
Price	1.000	.989
EnergyBoost	1.000	.979
Packaging	1.000	.936
Advt	1.000	.989
PeerGroup	1.000	.882
FAD	1.000	.989

Extraction Method: Principal Component Analysis.

a. Only cases for which Gender = Male are used in the analysis phase.

**Total Variance Explained<sup>a</sup>**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.753	96.477	96.477	6.753	96.477	96.477
2	.200	2.862	99.339			
3	.034	.485	99.824			
4	.012	.176	100.000			
5	3.823E-17	5.462E-16	100.000			
6	.000	.000	100.000			
7	-4.864E-17	-6.949E-16	100.000			

Extraction Method: Principal Component Analysis.

a. Only cases for which Gender = Male are used in the analysis phase.

In Conformatory factor analysis, loading cumulative should be greater than 70 and therefore indicates that this variable influence significant relationships. In our model, our cumulative factor loading is 96.477% which indicates that there is a significant relationship between different aspects on purchasing energy drinks.

**Conclusion:**

In conclusion, the study of consumer behavior patterns in energy drinks reveals a growing market driven by factors such as increased demand for physical and mental performance boosts, lifestyle influences, and targeted marketing strategies. Consumers, especially younger demographics, are often attracted to the promise of enhanced energy, focus, and stamina. However, the impact of energy drinks on health raises significant concerns. The high caffeine and sugar content, along with other stimulants, can lead to negative health effects, including heart palpitations, sleep disturbances, increased blood pressure, and even addiction in some cases. While some consumers may be aware of these risks, many continue to prioritize the perceived benefits, often neglecting the long-term health consequences. The study emphasizes the need for greater awareness, stricter regulations on marketing to vulnerable populations, and the promotion of healthier alternatives. Educating consumers on the potential health risks and encouraging informed decision-making is essential in mitigating the adverse effects of excessive energy drink consumption.

**References:**

1. Jacob, S., Tambawel, J., Trooshi, F. M., & Alkhoury, Y. (2013). *Consumption pattern of nutritional health drinks and energy drinks among university students in Ajman, UAE*. *Gulf Medical Journal*, 2(1), 22-26.
2. Ali, F., Rahman, M. T. A., Zainudin, Z. H., & Thabet, O. (2023). *Consumer Buying Behaviour Towards Energy Drinks in Malaysia*. *MALAYSIAN JOURNAL OF AGRICULTURAL ECONOMICS*, 30(1).
3. Kobik, W., & Aryee, P. A. (2024). *Energy drinks in Tamale: Understanding youth perceptions, consumption patterns, and related factors*. *Plos one*, 19(4), e0289391.
4. Rambe, P., & Jafeta, R. J. (2017). *Impact of social media advertising on high energy drink preferences and consumption*. *Journal of Applied Business Research*, 33(4).
5. Reissig, C. J., Strain, E. C., & Griffiths, R. R. (2009). *Caffeinated energy drinks—a growing problem*. *Drug and alcohol dependence*, 99(1-3), 1-10.



6. Malinauskas, B. M., Aeby, V. G., Overton, R. F., Carpenter-Aeby, T., & Barber-Heidal, K. (2007). A survey of energy drink consumption patterns among college students. *Nutrition journal*, 6, 1-7.
7. Ishak, W. W., Ugochukwu, C., Bagot, K., Khalili, D., & Zaky, C. (2012). Energy drinks: psychological effects and impact on well-being and quality of life—a literature review. *Innovations in clinical neuroscience*, 9(1), 25.
8. Mamiya, H., Moodie, E. E., Schmidt, A. M., Ma, Y., & Buckeridge, D. L. (2021). Price discounting as a hidden risk factor of energy drink consumption. *Canadian Journal of Public Health*, 112, 638-646.
9. Muxiddinovna, I. M. (2022). Impact of energy drinks and their combination with alcohol to the rats metabolism. *Gospodarka i Innowacje*, 22, 544-549.

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