# Consumer Preferences

# What is the frequency of each flavor?

**Multiple Response**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| **Output Created** | | **28-FEB-2025 19:02:11** |
| **Comments** | |  |
| **Input** | **Data** | **E:\WORK\Portfolio\Research\Consumer Preferences and Behavior in the Energy Drink Market\Consumer-Preferences-and-Behavior-in-the-Energy-Drink-Market\1\_Data\Analysis.sav** |
| **Active Dataset** | **DataSet1** |
| **Filter** | **<none>** |
| **Weight** | **<none>** |
| **Split File** | **<none>** |
| **N of Rows in Working Data File** | **370** |
| **Missing Value Handling** | **Definition of Missing** | **User-defined missing values are treated as missing.** |
| **Cases Used** | **Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.** |
| **Syntax** | | **MULT RESPONSE GROUPS=$FlavorSet 'Flavor Preference' (flavor\_citrus flavor\_berry flavor\_tropical**  **flavor\_mint flavor\_coffee (1))**  **/FREQUENCIES=$FlavorSet.** |
| **Resources** | **Processor Time** | **00:00:00.00** |
| **Elapsed Time** | **00:00:00.01** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Case Summary** | | | | | | |
|  | **Cases** | | | | | |
| **Valid** | | **Missing** | | **Total** | |
| **N** | **Percent** | **N** | **Percent** | **N** | **Percent** |
| **$FlavorSeta** | **338** | **91.4%** | **32** | **8.6%** | **370** | **100.0%** |
| **a. Dichotomy group tabulated at value 1.** | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **$FlavorSet Frequencies** | | | | |
|  | | **Responses** | | **Percent of Cases** |
| **N** | **Percent** |
| **Flavor Preferencea** | **Q13: Citrus flavor preference.** | **290** | **37.3%** | **85.8%** |
| **Q13: Berry flavor preference.** | **163** | **21.0%** | **48.2%** |
| **Q13: Tropical flavor preference.** | **141** | **18.1%** | **41.7%** |
| **Q13: Mint flavor preference.** | **153** | **19.7%** | **45.3%** |
| **Q13: Coffee flavor preference.** | **30** | **3.9%** | **8.9%** |
| **Total** | | **777** | **100.0%** | **229.9%** |
| **a. Dichotomy group tabulated at value 1.** | | | | |

**Certainly! Below is a summarized table based on the SPSS Multiple Response Frequencies output. The results show the frequency and percentage of respondents who selected each flavor preference for energy drinks.**

**### Summary Table: Flavor Preferences Among Respondents**

**| \*\*Flavor Preference\*\* | \*\*Number of Responses (N)\*\* | \*\*Percent of Total Responses\*\* | \*\*Percent of Cases with Valid Data\*\* |**

**|------------------------|-----------------------------|----------------------------------|---------------------------------------|**

**| Citrus | 290 | 37.3% | 85.8% |**

**| Berry | 163 | 21.0% | 48.2% |**

**| Tropical | 141 | 18.1% | 41.7% |**

**| Mint | 153 | 19.7% | 45.3% |**

**| Coffee | 30 | 3.9% | 8.9% |**

**| \*\*Total\*\* | \*\*777\*\* | \*\*100.0%\*\* | \*\*229.9%\*\* |**

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**### Key Findings:**

**1. \*\*Most Preferred Flavor\*\*: Citrus is the most preferred flavor, with \*\*290 responses\*\* (37.3% of total responses) and \*\*85.8% of valid cases\*\* indicating a preference for it.**

**2. \*\*Least Preferred Flavor\*\*: Coffee is the least preferred flavor, with only \*\*30 responses\*\* (3.9% of total responses) and \*\*8.9% of valid cases\*\*.**

**3. \*\*Multiple Selections\*\*: Since this is a multiple response question, the total percentage of responses exceeds 100% (229.9%), indicating that many respondents selected more than one flavor preference.**

**4. \*\*Valid vs. Missing Cases\*\*: Out of 370 total cases, \*\*338 cases (91.4%)\*\* provided valid responses, while \*\*32 cases (8.6%)\*\* had missing data.**

# What are flavor preferences across demographics?

**Crosstabs**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| Output Created | | 28-FEB-2025 19:27:37 |
| Comments | |  |
| Input | Data | E:\WORK\Portfolio\Research\Consumer Preferences and Behavior in the Energy Drink Market\Consumer-Preferences-and-Behavior-in-the-Energy-Drink-Market\1\_Data\Analysis.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 370 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table. |
| Syntax | | CROSSTABS  /TABLES=Flavor\_Citrus Flavor\_Berry Flavor\_Tropical Flavor\_Mint Flavor\_Coffee BY Age\_Group Gender  City Occupation Income\_Range  /FORMAT=DVALUE TABLES  /STATISTICS=CHISQ  /CELLS=COUNT COLUMN  /COUNT ROUND CELL. |
| Resources | Processor Time | 00:00:00.06 |
| Elapsed Time | 00:00:00.04 |
| Dimensions Requested | 2 |
| Cells Available | 524245 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Case Processing Summary** | | | | | | |
|  | Cases | | | | | |
| Valid | | Missing | | Total | |
| N | Percent | N | Percent | N | Percent |
| Q13: Citrus flavor preference. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Citrus flavor preference. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Citrus flavor preference. \* Q4: City of Residency. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Citrus flavor preference. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Citrus flavor preference. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Berry flavor preference. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Berry flavor preference. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Berry flavor preference. \* Q4: City of Residency. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Berry flavor preference. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Berry flavor preference. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Tropical flavor preference. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Tropical flavor preference. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Tropical flavor preference. \* Q4: City of Residency. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Tropical flavor preference. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Tropical flavor preference. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Mint flavor preference. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Mint flavor preference. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Mint flavor preference. \* Q4: City of Residency. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Mint flavor preference. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Mint flavor preference. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Coffee flavor preference. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Coffee flavor preference. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Coffee flavor preference. \* Q4: City of Residency. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Coffee flavor preference. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q13: Coffee flavor preference. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |

**Q13: Citrus flavor preference. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q13: Citrus flavor preference. | Yes | Count | 9 | 144 | 116 | 21 | 0 | 290 |
| % within Q1: Age. | 37.5% | 75.0% | 99.1% | 100.0% | 0.0% | 78.6% |
| No | Count | 15 | 48 | 1 | 0 | 15 | 79 |
| % within Q1: Age. | 62.5% | 25.0% | 0.9% | 0.0% | 100.0% | 21.4% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 115.718a | 4 | .000 |
| Likelihood Ratio | 124.057 | 4 | .000 |
| Linear-by-Linear Association | 1.237 | 1 | .266 |
| N of Valid Cases | 369 |  |  |
| a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.21. | | | |

**Q13: Citrus flavor preference. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q13: Citrus flavor preference. | Yes | Count | 158 | 132 | 0 | 290 |
| % within Q2: Gender. | 90.8% | 73.3% | 0.0% | 78.6% |
| No | Count | 16 | 48 | 15 | 79 |
| % within Q2: Gender. | 9.2% | 26.7% | 100.0% | 21.4% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 73.447a | 2 | .000 |
| Likelihood Ratio | 67.646 | 2 | .000 |
| Linear-by-Linear Association | 53.704 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.21. | | | |

**Q13: Citrus flavor preference. \* Q4: City of Residency.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q4: City of Residency. | | | | Total |
| Cairo | Giza | Alexandria | Port Said |
| Q13: Citrus flavor preference. | Yes | Count | 135 | 27 | 113 | 15 | 290 |
| % within Q4: City of Residency. | 77.6% | 75.0% | 78.5% | 100.0% | 78.6% |
| No | Count | 39 | 9 | 31 | 0 | 79 |
| % within Q4: City of Residency. | 22.4% | 25.0% | 21.5% | 0.0% | 21.4% |
| Total | | Count | 174 | 36 | 144 | 15 | 369 |
| % within Q4: City of Residency. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 4.468a | 3 | .215 |
| Likelihood Ratio | 7.597 | 3 | .055 |
| Linear-by-Linear Association | 1.004 | 1 | .316 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.21. | | | |

**Q13: Citrus flavor preference. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q13: Citrus flavor preference. | Yes | Count | 84 | 196 | 9 | 1 | 290 |
| % within Q5: Occupation. | 71.8% | 92.5% | 37.5% | 6.3% | 78.6% |
| No | Count | 33 | 16 | 15 | 15 | 79 |
| % within Q5: Occupation. | 28.2% | 7.5% | 62.5% | 93.8% | 21.4% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 101.271a | 3 | .000 |
| Likelihood Ratio | 91.377 | 3 | .000 |
| Linear-by-Linear Association | 28.459 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.43. | | | |

**Q13: Citrus flavor preference. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q13: Citrus flavor preference. | Yes | Count | 54 | 159 | 77 | 0 | 290 |
| % within Q6: Monthly income range. | 62.1% | 91.4% | 82.8% | 0.0% | 78.6% |
| No | Count | 33 | 15 | 16 | 15 | 79 |
| % within Q6: Monthly income range. | 37.9% | 8.6% | 17.2% | 100.0% | 21.4% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 87.068a | 3 | .000 |
| Likelihood Ratio | 80.183 | 3 | .000 |
| Linear-by-Linear Association | .702 | 1 | .402 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.21. | | | |

**Q13: Berry flavor preference. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q13: Berry flavor preference. | Yes | Count | 24 | 71 | 68 | 0 | 0 | 163 |
| % within Q1: Age. | 100.0% | 37.0% | 58.1% | 0.0% | 0.0% | 44.2% |
| No | Count | 0 | 121 | 49 | 21 | 15 | 206 |
| % within Q1: Age. | 0.0% | 63.0% | 41.9% | 100.0% | 100.0% | 55.8% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 72.074a | 4 | .000 |
| Likelihood Ratio | 94.427 | 4 | .000 |
| Linear-by-Linear Association | 18.737 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63. | | | |

**Q13: Berry flavor preference. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q13: Berry flavor preference. | Yes | Count | 45 | 103 | 15 | 163 |
| % within Q2: Gender. | 25.9% | 57.2% | 100.0% | 44.2% |
| No | Count | 129 | 77 | 0 | 206 |
| % within Q2: Gender. | 74.1% | 42.8% | 0.0% | 55.8% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 55.044a | 2 | .000 |
| Likelihood Ratio | 61.836 | 2 | .000 |
| Linear-by-Linear Association | 54.338 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63. | | | |

**Q13: Berry flavor preference. \* Q4: City of Residency.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q4: City of Residency. | | | | Total |
| Cairo | Giza | Alexandria | Port Said |
| Q13: Berry flavor preference. | Yes | Count | 42 | 17 | 89 | 15 | 163 |
| % within Q4: City of Residency. | 24.1% | 47.2% | 61.8% | 100.0% | 44.2% |
| No | Count | 132 | 19 | 55 | 0 | 206 |
| % within Q4: City of Residency. | 75.9% | 52.8% | 38.2% | 0.0% | 55.8% |
| Total | | Count | 174 | 36 | 144 | 15 | 369 |
| % within Q4: City of Residency. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 65.570a | 3 | .000 |
| Likelihood Ratio | 72.875 | 3 | .000 |
| Linear-by-Linear Association | 63.432 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63. | | | |

**Q13: Berry flavor preference. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q13: Berry flavor preference. | Yes | Count | 56 | 92 | 0 | 15 | 163 |
| % within Q5: Occupation. | 47.9% | 43.4% | 0.0% | 93.8% | 44.2% |
| No | Count | 61 | 120 | 24 | 1 | 206 |
| % within Q5: Occupation. | 52.1% | 56.6% | 100.0% | 6.3% | 55.8% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 35.635a | 3 | .000 |
| Likelihood Ratio | 46.871 | 3 | .000 |
| Linear-by-Linear Association | 1.140 | 1 | .286 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.07. | | | |

**Q13: Berry flavor preference. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q13: Berry flavor preference. | Yes | Count | 71 | 53 | 39 | 0 | 163 |
| % within Q6: Monthly income range. | 81.6% | 30.5% | 41.9% | 0.0% | 44.2% |
| No | Count | 16 | 121 | 54 | 15 | 206 |
| % within Q6: Monthly income range. | 18.4% | 69.5% | 58.1% | 100.0% | 55.8% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 74.769a | 3 | .000 |
| Likelihood Ratio | 83.061 | 3 | .000 |
| Linear-by-Linear Association | 39.240 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63. | | | |

**Q13: Tropical flavor preference. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q13: Tropical flavor preference. | Yes | Count | 9 | 39 | 78 | 15 | 0 | 141 |
| % within Q1: Age. | 37.5% | 20.3% | 66.7% | 71.4% | 0.0% | 38.2% |
| No | Count | 15 | 153 | 39 | 6 | 15 | 228 |
| % within Q1: Age. | 62.5% | 79.7% | 33.3% | 28.6% | 100.0% | 61.8% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 85.273a | 4 | .000 |
| Likelihood Ratio | 91.203 | 4 | .000 |
| Linear-by-Linear Association | 14.171 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.73. | | | |

**Q13: Tropical flavor preference. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q13: Tropical flavor preference. | Yes | Count | 69 | 72 | 0 | 141 |
| % within Q2: Gender. | 39.7% | 40.0% | 0.0% | 38.2% |
| No | Count | 105 | 108 | 15 | 228 |
| % within Q2: Gender. | 60.3% | 60.0% | 100.0% | 61.8% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 9.674a | 2 | .008 |
| Likelihood Ratio | 14.839 | 2 | .001 |
| Linear-by-Linear Association | 2.383 | 1 | .123 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.73. | | | |

**Q13: Tropical flavor preference. \* Q4: City of Residency.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q4: City of Residency. | | | | Total |
| Cairo | Giza | Alexandria | Port Said |
| Q13: Tropical flavor preference. | Yes | Count | 48 | 9 | 69 | 15 | 141 |
| % within Q4: City of Residency. | 27.6% | 25.0% | 47.9% | 100.0% | 38.2% |
| No | Count | 126 | 27 | 75 | 0 | 228 |
| % within Q4: City of Residency. | 72.4% | 75.0% | 52.1% | 0.0% | 61.8% |
| Total | | Count | 174 | 36 | 144 | 15 | 369 |
| % within Q4: City of Residency. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 40.981a | 3 | .000 |
| Likelihood Ratio | 45.999 | 3 | .000 |
| Linear-by-Linear Association | 29.065 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.73. | | | |

**Q13: Tropical flavor preference. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q13: Tropical flavor preference. | Yes | Count | 24 | 102 | 0 | 15 | 141 |
| % within Q5: Occupation. | 20.5% | 48.1% | 0.0% | 93.8% | 38.2% |
| No | Count | 93 | 110 | 24 | 1 | 228 |
| % within Q5: Occupation. | 79.5% | 51.9% | 100.0% | 6.3% | 61.8% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 60.071a | 3 | .000 |
| Likelihood Ratio | 71.024 | 3 | .000 |
| Linear-by-Linear Association | 22.046 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.11. | | | |

**Q13: Tropical flavor preference. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q13: Tropical flavor preference. | Yes | Count | 24 | 69 | 48 | 0 | 141 |
| % within Q6: Monthly income range. | 27.6% | 39.7% | 51.6% | 0.0% | 38.2% |
| No | Count | 63 | 105 | 45 | 15 | 228 |
| % within Q6: Monthly income range. | 72.4% | 60.3% | 48.4% | 100.0% | 61.8% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 20.664a | 3 | .000 |
| Likelihood Ratio | 25.808 | 3 | .000 |
| Linear-by-Linear Association | 1.874 | 1 | .171 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.73. | | | |

**Q13: Mint flavor preference. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q13: Mint flavor preference. | Yes | Count | 9 | 96 | 42 | 6 | 0 | 153 |
| % within Q1: Age. | 37.5% | 50.0% | 35.9% | 28.6% | 0.0% | 41.5% |
| No | Count | 15 | 96 | 75 | 15 | 15 | 216 |
| % within Q1: Age. | 62.5% | 50.0% | 64.1% | 71.4% | 100.0% | 58.5% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 19.476a | 4 | .001 |
| Likelihood Ratio | 24.922 | 4 | .000 |
| Linear-by-Linear Association | 13.257 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.22. | | | |

**Q13: Mint flavor preference. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q13: Mint flavor preference. | Yes | Count | 105 | 48 | 0 | 153 |
| % within Q2: Gender. | 60.3% | 26.7% | 0.0% | 41.5% |
| No | Count | 69 | 132 | 15 | 216 |
| % within Q2: Gender. | 39.7% | 73.3% | 100.0% | 58.5% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 52.420a | 2 | .000 |
| Likelihood Ratio | 58.251 | 2 | .000 |
| Linear-by-Linear Association | 52.065 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.22. | | | |

**Q13: Mint flavor preference. \* Q4: City of Residency.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q4: City of Residency. | | | | Total |
| Cairo | Giza | Alexandria | Port Said |
| Q13: Mint flavor preference. | Yes | Count | 81 | 18 | 39 | 15 | 153 |
| % within Q4: City of Residency. | 46.6% | 50.0% | 27.1% | 100.0% | 41.5% |
| No | Count | 93 | 18 | 105 | 0 | 216 |
| % within Q4: City of Residency. | 53.4% | 50.0% | 72.9% | 0.0% | 58.5% |
| Total | | Count | 174 | 36 | 144 | 15 | 369 |
| % within Q4: City of Residency. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 36.382a | 3 | .000 |
| Likelihood Ratio | 42.223 | 3 | .000 |
| Linear-by-Linear Association | 1.565 | 1 | .211 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.22. | | | |

**Q13: Mint flavor preference. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q13: Mint flavor preference. | Yes | Count | 54 | 83 | 0 | 16 | 153 |
| % within Q5: Occupation. | 46.2% | 39.2% | 0.0% | 100.0% | 41.5% |
| No | Count | 63 | 129 | 24 | 0 | 216 |
| % within Q5: Occupation. | 53.8% | 60.8% | 100.0% | 0.0% | 58.5% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 41.116a | 3 | .000 |
| Likelihood Ratio | 55.397 | 3 | .000 |
| Linear-by-Linear Association | 2.356 | 1 | .125 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.63. | | | |

**Q13: Mint flavor preference. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q13: Mint flavor preference. | Yes | Count | 39 | 45 | 69 | 0 | 153 |
| % within Q6: Monthly income range. | 44.8% | 25.9% | 74.2% | 0.0% | 41.5% |
| No | Count | 48 | 129 | 24 | 15 | 216 |
| % within Q6: Monthly income range. | 55.2% | 74.1% | 25.8% | 100.0% | 58.5% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 69.528a | 3 | .000 |
| Likelihood Ratio | 75.928 | 3 | .000 |
| Linear-by-Linear Association | 3.948 | 1 | .047 |
| N of Valid Cases | 369 |  |  |
| a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.22. | | | |

**Q13: Coffee flavor preference. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q13: Coffee flavor preference. | Yes | Count | 9 | 21 | 0 | 0 | 0 | 30 |
| % within Q1: Age. | 37.5% | 10.9% | 0.0% | 0.0% | 0.0% | 8.1% |
| No | Count | 15 | 171 | 117 | 21 | 15 | 339 |
| % within Q1: Age. | 62.5% | 89.1% | 100.0% | 100.0% | 100.0% | 91.9% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 43.283a | 4 | .000 |
| Likelihood Ratio | 43.754 | 4 | .000 |
| Linear-by-Linear Association | 27.400 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.22. | | | |

**Q13: Coffee flavor preference. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q13: Coffee flavor preference. | Yes | Count | 6 | 24 | 0 | 30 |
| % within Q2: Gender. | 3.4% | 13.3% | 0.0% | 8.1% |
| No | Count | 168 | 156 | 15 | 339 |
| % within Q2: Gender. | 96.6% | 86.7% | 100.0% | 91.9% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 12.958a | 2 | .002 |
| Likelihood Ratio | 14.507 | 2 | .001 |
| Linear-by-Linear Association | 5.317 | 1 | .021 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.22. | | | |

**Q13: Coffee flavor preference. \* Q4: City of Residency.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q4: City of Residency. | | | | Total |
| Cairo | Giza | Alexandria | Port Said |
| Q13: Coffee flavor preference. | Yes | Count | 30 | 0 | 0 | 0 | 30 |
| % within Q4: City of Residency. | 17.2% | 0.0% | 0.0% | 0.0% | 8.1% |
| No | Count | 144 | 36 | 144 | 15 | 339 |
| % within Q4: City of Residency. | 82.8% | 100.0% | 100.0% | 100.0% | 91.9% |
| Total | | Count | 174 | 36 | 144 | 15 | 369 |
| % within Q4: City of Residency. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 36.596a | 3 | .000 |
| Likelihood Ratio | 48.095 | 3 | .000 |
| Linear-by-Linear Association | 31.791 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.22. | | | |

**Q13: Coffee flavor preference. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q13: Coffee flavor preference. | Yes | Count | 9 | 21 | 0 | 0 | 30 |
| % within Q5: Occupation. | 7.7% | 9.9% | 0.0% | 0.0% | 8.1% |
| No | Count | 108 | 191 | 24 | 16 | 339 |
| % within Q5: Occupation. | 92.3% | 90.1% | 100.0% | 100.0% | 91.9% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 4.465a | 3 | .215 |
| Likelihood Ratio | 7.656 | 3 | .054 |
| Linear-by-Linear Association | 1.363 | 1 | .243 |
| N of Valid Cases | 369 |  |  |
| a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.30. | | | |

**Q13: Coffee flavor preference. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q13: Coffee flavor preference. | Yes | Count | 9 | 21 | 0 | 0 | 30 |
| % within Q6: Monthly income range. | 10.3% | 12.1% | 0.0% | 0.0% | 8.1% |
| No | Count | 78 | 153 | 93 | 15 | 339 |
| % within Q6: Monthly income range. | 89.7% | 87.9% | 100.0% | 100.0% | 91.9% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 13.743a | 3 | .003 |
| Likelihood Ratio | 22.029 | 3 | .000 |
| Linear-by-Linear Association | 8.031 | 1 | .005 |
| N of Valid Cases | 369 |  |  |
| a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.22. | | | |

Certainly! Below is a summarized table based on the SPSS Crosstabs output. This table highlights the key findings for each flavor preference (Citrus, Berry, Tropical, Mint, Coffee) across various demographic and socioeconomic variables (Age, Gender, City of Residency, Occupation, Monthly Income Range). The results are presented in terms of percentages within each category.

---

### Summary Table: Flavor Preferences by Demographic and Socioeconomic Variables

| \*\*Variable\*\* | \*\*Category\*\* | \*\*Citrus (%)\*\* | \*\*Berry (%)\*\* | \*\*Tropical (%)\*\* | \*\*Mint (%)\*\* | \*\*Coffee (%)\*\* |

|------------------------|--------------------------|----------------|---------------|------------------|--------------|----------------|

| \*\*Age\*\* | Under 18 | 37.5 | 100.0 | 37.5 | 37.5 | 37.5 |

| | 18–24 | 75.0 | 37.0 | 20.3 | 50.0 | 10.9 |

| | 25–34 | 99.1 | 58.1 | 66.7 | 35.9 | 0.0 |

| | 35–44 | 100.0 | 0.0 | 71.4 | 28.6 | 0.0 |

| | 45+ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| \*\*Gender\*\* | Male | 90.8 | 25.9 | 39.7 | 60.3 | 3.4 |

| | Female | 73.3 | 57.2 | 40.0 | 26.7 | 13.3 |

| | Prefer not to say | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |

| \*\*City of Residency\*\* | Cairo | 77.6 | 24.1 | 27.6 | 46.6 | 17.2 |

| | Giza | 75.0 | 47.2 | 25.0 | 50.0 | 0.0 |

| | Alexandria | 78.5 | 61.8 | 47.9 | 27.1 | 0.0 |

| | Port Said | 100.0 | 100.0 | 100.0 | 100.0 | 0.0 |

| \*\*Occupation\*\* | Student | 71.8 | 47.9 | 20.5 | 46.2 | 7.7 |

| | Working Professional | 92.5 | 43.4 | 48.1 | 39.2 | 9.9 |

| | Self-employed | 37.5 | 0.0 | 0.0 | 0.0 | 0.0 |

| | Other | 6.3 | 93.8 | 93.8 | 100.0 | 0.0 |

| \*\*Monthly Income\*\* | Less than EGP 5,000 | 62.1 | 81.6 | 27.6 | 44.8 | 10.3 |

| | EGP 5,000–10,000 | 91.4 | 30.5 | 39.7 | 25.9 | 12.1 |

| | EGP 10,001–20,000 | 82.8 | 41.9 | 51.6 | 74.2 | 0.0 |

| | EGP 20,001–30,000 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

---

### Key Findings:

1. \*\*Citrus Flavor Preference\*\*:

- Most popular among all age groups, especially those aged 25–34 (99.1%) and 35–44 (100%).

- Higher preference among males (90.8%) compared to females (73.3%).

- Strongly preferred in Cairo (77.6%) and Alexandria (78.5%).

2. \*\*Berry Flavor Preference\*\*:

- More popular among younger respondents (Under 18: 100%, 18–24: 37.0%).

- Preferred more by females (57.2%) than males (25.9%).

- High preference in Alexandria (61.8%) and Port Said (100%).

3. \*\*Tropical Flavor Preference\*\*:

- Higher among older respondents (25–34: 66.7%, 35–44: 71.4%).

- Gender distribution is relatively balanced.

- Strong preference in Alexandria (47.9%) and Port Said (100%).

4. \*\*Mint Flavor Preference\*\*:

- Moderate preference across most categories, with higher preference among males (60.3%) than females (26.7%).

- Strongly preferred in Cairo (46.6%) and less so in Alexandria (27.1%).

5. \*\*Coffee Flavor Preference\*\*:

- Least popular overall, with significant preference only among younger respondents (Under 18: 37.5%, 18–24: 10.9%).

- Very low preference across all other demographics and socioeconomic variables.

---

This summary provides a concise overview of how flavor preferences vary across different demographic and socioeconomic factors, helping to identify target markets for specific flavors in the energy drink market.

Certainly! Below is an interpretation and summary of the SPSS Crosstabs results provided in the file. The analysis focuses on the relationship between flavor preferences (Citrus, Berry, Tropical, Mint, Coffee) and demographic variables such as Age, Gender, City of Residency, Occupation, and Monthly Income Range. Significance levels are noted for each relationship.

---

### \*\*Summary Table: Relationships Between Flavor Preferences and Demographic Variables\*\*

| \*\*Flavor Preference\*\* | \*\*Demographic Variable\*\* | \*\*Significant Relationship?\*\* | \*\*Key Findings\*\* |

|------------------------|----------------------------|--------------------------------|----------------------------------------------------------------------------------|

| \*\*Citrus\*\* | Age | Yes (p < 0.001) | Strong preference among those aged 25–34 and 35–44; less preferred by those under 18. |

| | Gender | Yes (p < 0.001) | Preferred more by males than females. |

| | City of Residency | No (p = 0.215) | No significant differences across cities. |

| | Occupation | Yes (p < 0.001) | Highly preferred by working professionals; less preferred by students. |

| | Monthly Income Range | Yes (p < 0.001) | Strongly preferred by those earning EGP 5,000–10,000 and EGP 10,001–20,000. |

| \*\*Berry\*\* | Age | Yes (p < 0.001) | Most preferred by those aged 18–24 and 25–34; less preferred by older groups. |

| | Gender | Yes (p < 0.001) | Preferred more by females and those who prefer not to say their gender. |

| | City of Residency | Yes (p < 0.001) | Most preferred in Alexandria and Port Said; less preferred in Cairo. |

| | Occupation | Yes (p < 0.001) | Preferred by working professionals and "Other" categories; less by students. |

| | Monthly Income Range | Yes (p < 0.001) | Preferred by those earning less than EGP 5,000 and EGP 5,000–10,000. |

| \*\*Tropical\*\* | Age | Yes (p < 0.001) | Most preferred by those aged 25–34 and 35–44; less preferred by younger groups. |

| | Gender | Yes (p = 0.008) | Slightly more preferred by males and females equally; less by "Prefer not to say." |

| | City of Residency | Yes (p < 0.001) | Most preferred in Alexandria and Port Said; less in Cairo. |

| | Occupation | Yes (p < 0.001) | Preferred by working professionals and "Other" categories; less by students. |

| | Monthly Income Range | Yes (p < 0.001) | Preferred by those earning EGP 10,001–20,000. |

| \*\*Mint\*\* | Age | Yes (p = 0.001) | Most preferred by those aged 18–24; less by older groups. |

| | Gender | Yes (p < 0.001) | Preferred more by males than females. |

| | City of Residency | Yes (p < 0.001) | Most preferred in Cairo and Giza; less in Alexandria. |

| | Occupation | Yes (p < 0.001) | Preferred by working professionals and students; less by self-employed. |

| | Monthly Income Range | Yes (p < 0.001) | Preferred by those earning EGP 10,001–20,000. |

| \*\*Coffee\*\* | Age | Yes (p < 0.001) | Most preferred by those aged 18–24; almost nonexistent in other age groups. |

| | Gender | Yes (p = 0.002) | Preferred slightly more by females than males. |

| | City of Residency | Yes (p < 0.001) | Almost exclusively preferred in Cairo. |

| | Occupation | No (p = 0.215) | No significant differences across occupations. |

| | Monthly Income Range | Yes (p = 0.003) | Preferred slightly more by those earning EGP 5,000–10,000. |

---

### \*\*Key Observations\*\*

1. \*\*Citrus Flavor\*\*:

- Strongly associated with age, gender, occupation, and income range.

- Most popular among working professionals aged 25–34 and earning EGP 5,000–10,000.

2. \*\*Berry Flavor\*\*:

- Strongly associated with all demographic variables except city of residency.

- Most popular among females aged 18–24, especially in Alexandria.

3. \*\*Tropical Flavor\*\*:

- Strongly associated with age, city of residency, occupation, and income range.

- Most popular among working professionals aged 25–34, particularly in Alexandria.

4. \*\*Mint Flavor\*\*:

- Strongly associated with all demographic variables except monthly income range.

- Most popular among males aged 18–24, especially in Cairo.

5. \*\*Coffee Flavor\*\*:

- Strongly associated with age, gender, and city of residency.

- Almost exclusively preferred by young adults (18–24) in Cairo.

---

### \*\*Conclusion\*\*

The results indicate that flavor preferences are significantly influenced by demographic factors such as age, gender, city of residency, occupation, and income range. This information can help energy drink companies tailor their marketing strategies to target specific demographics effectively. For example:

- Promote citrus flavors to working professionals aged 25–34.

- Focus berry flavors on young females aged 18–24 in Alexandria.

- Highlight tropical flavors for working professionals aged 25–34.

- Market mint flavors to male students and young adults in Cairo.

- Target coffee flavors specifically to young adults aged 18–24 in urban areas like Cairo.

# Importance of Flavor Variety (Q14)

**Frequencies**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| Output Created | | 28-FEB-2025 20:20:29 |
| Comments | |  |
| Input | Data | E:\WORK\Portfolio\Research\Consumer Preferences and Behavior in the Energy Drink Market\Consumer-Preferences-and-Behavior-in-the-Energy-Drink-Market\1\_Data\Analysis.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 370 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Statistics are based on all cases with valid data. |
| Syntax | | FREQUENCIES VARIABLES=Importance\_Varitiety  /ORDER=ANALYSIS. |
| Resources | Processor Time | 00:00:00.02 |
| Elapsed Time | 00:00:00.03 |

|  |  |  |
| --- | --- | --- |
| **Statistics** | | |
| Q14: Importance of variety. | | |
| N | Valid | 369 |
| Missing | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q14: Importance of variety.** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Very important | 105 | 28.4 | 28.5 | 28.5 |
| Somewhat important | 96 | 25.9 | 26.0 | 54.5 |
| Neutral | 93 | 25.1 | 25.2 | 79.7 |
| Not very important | 6 | 1.6 | 1.6 | 81.3 |
| Not important at all | 69 | 18.6 | 18.7 | 100.0 |
| Total | 369 | 99.7 | 100.0 |  |
| Missing | System | 1 | .3 |  |  |
| Total | | 370 | 100.0 |  |  |

Certainly! Below is the interpretation and summary of the SPSS Frequencies output for the variable \*\*"Importance of variety"\*\*. This analysis provides insights into how respondents perceive the importance of variety in energy drinks.

---

### \*\*Summary Table: Importance of Variety in Energy Drinks\*\*

| \*\*Response Category\*\* | \*\*Frequency (N)\*\* | \*\*Percent of Total Cases\*\* | \*\*Valid Percent\*\* | \*\*Cumulative Percent\*\* |

|--------------------------------|-------------------|-----------------------------|--------------------|-------------------------|

| Very important | 105 | 28.4% | 28.5% | 28.5% |

| Somewhat important | 96 | 25.9% | 26.0% | 54.5% |

| Neutral | 93 | 25.1% | 25.2% | 79.7% |

| Not very important | 6 | 1.6% | 1.6% | 81.3% |

| Not important at all | 69 | 18.6% | 18.7% | 100.0% |

| \*\*Total Valid Responses\*\* | \*\*369\*\* | \*\*99.7%\*\* | \*\*100.0%\*\* | |

| Missing (System) | 1 | 0.3% | | |

| \*\*Total Cases\*\* | \*\*370\*\* | \*\*100.0%\*\* | | |

---

### \*\*Key Findings\*\*

1. \*\*Most Common Response\*\*: The majority of respondents (28.5%) consider variety to be \*\*very important\*\* when choosing energy drinks.

2. \*\*Neutral or Somewhat Important\*\*: A significant proportion of respondents (25.2% neutral + 26.0% somewhat important = 51.2%) view variety as either neutral or moderately important.

3. \*\*Least Common Response\*\*: Only a small fraction (1.6%) of respondents find variety \*\*not very important\*\*.

4. \*\*Not Important at All\*\*: Nearly one-fifth of respondents (18.7%) believe that variety is \*\*not important at all\*\* in their decision-making process.

5. \*\*Missing Data\*\*: There is 1 missing case (0.3%) out of the total 370 cases.

---

### \*\*Conclusion\*\*

The results indicate that \*\*variety\*\* is an important factor for many consumers when selecting energy drinks, with nearly 55% of respondents considering it either "very important" or "somewhat important." However, a notable portion (18.7%) does not value variety, suggesting that other factors may drive their purchasing decisions. This information can help energy drink companies prioritize offering diverse product options to appeal to the majority while also focusing on other attributes for those who do not prioritize variety.

**Crosstabs**

|  |  |  |
| --- | --- | --- |
| **Notes** | | |
| Output Created | | 28-FEB-2025 20:26:00 |
| Comments | |  |
| Input | Data | E:\WORK\Portfolio\Research\Consumer Preferences and Behavior in the Energy Drink Market\Consumer-Preferences-and-Behavior-in-the-Energy-Drink-Market\1\_Data\Analysis.sav |
| Active Dataset | DataSet1 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 370 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| Cases Used | Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table. |
| Syntax | | CROSSTABS  /TABLES=Importance\_Varitiety BY Age\_Group Gender Occupation Income\_Range  /FORMAT=DVALUE TABLES  /STATISTICS=CHISQ  /CELLS=COUNT COLUMN  /COUNT ROUND CELL. |
| Resources | Processor Time | 00:00:00.02 |
| Elapsed Time | 00:00:00.03 |
| Dimensions Requested | 2 |
| Cells Available | 524245 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Case Processing Summary** | | | | | | |
|  | Cases | | | | | |
| Valid | | Missing | | Total | |
| N | Percent | N | Percent | N | Percent |
| Q14: Importance of variety. \* Q1: Age. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q14: Importance of variety. \* Q2: Gender. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q14: Importance of variety. \* Q5: Occupation. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |
| Q14: Importance of variety. \* Q6: Monthly income range. | 369 | 99.7% | 1 | 0.3% | 370 | 100.0% |

**Q14: Importance of variety. \* Q1: Age.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | | |
|  | | | Q1: Age. | | | | | Total |
| Under 18 | 18–24 | 25–34 | 35–44 | 45+ |
| Q14: Importance of variety. | Not important at all | Count | 0 | 30 | 24 | 0 | 15 | 69 |
| % within Q1: Age. | 0.0% | 15.6% | 20.5% | 0.0% | 100.0% | 18.7% |
| Not very important | Count | 0 | 0 | 0 | 6 | 0 | 6 |
| % within Q1: Age. | 0.0% | 0.0% | 0.0% | 28.6% | 0.0% | 1.6% |
| Neutral | Count | 0 | 63 | 15 | 15 | 0 | 93 |
| % within Q1: Age. | 0.0% | 32.8% | 12.8% | 71.4% | 0.0% | 25.2% |
| Somewhat important | Count | 0 | 48 | 48 | 0 | 0 | 96 |
| % within Q1: Age. | 0.0% | 25.0% | 41.0% | 0.0% | 0.0% | 26.0% |
| Very important | Count | 24 | 51 | 30 | 0 | 0 | 105 |
| % within Q1: Age. | 100.0% | 26.6% | 25.6% | 0.0% | 0.0% | 28.5% |
| Total | | Count | 24 | 192 | 117 | 21 | 15 | 369 |
| % within Q1: Age. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 281.005a | 16 | .000 |
| Likelihood Ratio | 209.539 | 16 | .000 |
| Linear-by-Linear Association | 53.138 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 11 cells (44.0%) have expected count less than 5. The minimum expected count is .24. | | | |

**Q14: Importance of variety. \* Q2: Gender.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | |
|  | | | Q2: Gender. | | | Total |
| Male | Female | Prefer not to say |
| Q14: Importance of variety. | Not important at all | Count | 24 | 45 | 0 | 69 |
| % within Q2: Gender. | 13.8% | 25.0% | 0.0% | 18.7% |
| Not very important | Count | 6 | 0 | 0 | 6 |
| % within Q2: Gender. | 3.4% | 0.0% | 0.0% | 1.6% |
| Neutral | Count | 84 | 9 | 0 | 93 |
| % within Q2: Gender. | 48.3% | 5.0% | 0.0% | 25.2% |
| Somewhat important | Count | 24 | 72 | 0 | 96 |
| % within Q2: Gender. | 13.8% | 40.0% | 0.0% | 26.0% |
| Very important | Count | 36 | 54 | 15 | 105 |
| % within Q2: Gender. | 20.7% | 30.0% | 100.0% | 28.5% |
| Total | | Count | 174 | 180 | 15 | 369 |
| % within Q2: Gender. | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 143.520a | 8 | .000 |
| Likelihood Ratio | 152.579 | 8 | .000 |
| Linear-by-Linear Association | 14.040 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is .24. | | | |

**Q14: Importance of variety. \* Q5: Occupation.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q5: Occupation. | | | | Total |
| Student | Working Professional | Self-employed | Other |
| Q14: Importance of variety. | Not important at all | Count | 15 | 39 | 15 | 0 | 69 |
| % within Q5: Occupation. | 12.8% | 18.4% | 62.5% | 0.0% | 18.7% |
| Not very important | Count | 0 | 6 | 0 | 0 | 6 |
| % within Q5: Occupation. | 0.0% | 2.8% | 0.0% | 0.0% | 1.6% |
| Neutral | Count | 30 | 53 | 9 | 1 | 93 |
| % within Q5: Occupation. | 25.6% | 25.0% | 37.5% | 6.3% | 25.2% |
| Somewhat important | Count | 33 | 63 | 0 | 0 | 96 |
| % within Q5: Occupation. | 28.2% | 29.7% | 0.0% | 0.0% | 26.0% |
| Very important | Count | 39 | 51 | 0 | 15 | 105 |
| % within Q5: Occupation. | 33.3% | 24.1% | 0.0% | 93.8% | 28.5% |
| Total | | Count | 117 | 212 | 24 | 16 | 369 |
| % within Q5: Occupation. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 82.924a | 12 | .000 |
| Likelihood Ratio | 87.864 | 12 | .000 |
| Linear-by-Linear Association | .003 | 1 | .958 |
| N of Valid Cases | 369 |  |  |
| a. 9 cells (45.0%) have expected count less than 5. The minimum expected count is .26. | | | |

**Q14: Importance of variety. \* Q6: Monthly income range.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crosstab** | | | | | | | |
|  | | | Q6: Monthly income range. | | | | Total |
| Less than EGP 5,000 | EGP 5,000–10,000 | EGP 10,001–20,000 | EGP 20,001–30,000 |
| Q14: Importance of variety. | Not important at all | Count | 0 | 39 | 15 | 15 | 69 |
| % within Q6: Monthly income range. | 0.0% | 22.4% | 16.1% | 100.0% | 18.7% |
| Not very important | Count | 0 | 0 | 6 | 0 | 6 |
| % within Q6: Monthly income range. | 0.0% | 0.0% | 6.5% | 0.0% | 1.6% |
| Neutral | Count | 15 | 54 | 24 | 0 | 93 |
| % within Q6: Monthly income range. | 17.2% | 31.0% | 25.8% | 0.0% | 25.2% |
| Somewhat important | Count | 18 | 60 | 18 | 0 | 96 |
| % within Q6: Monthly income range. | 20.7% | 34.5% | 19.4% | 0.0% | 26.0% |
| Very important | Count | 54 | 21 | 30 | 0 | 105 |
| % within Q6: Monthly income range. | 62.1% | 12.1% | 32.3% | 0.0% | 28.5% |
| Total | | Count | 87 | 174 | 93 | 15 | 369 |
| % within Q6: Monthly income range. | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Chi-Square Tests** | | | |
|  | Value | df | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 163.976a | 12 | .000 |
| Likelihood Ratio | 159.406 | 12 | .000 |
| Linear-by-Linear Association | 54.671 | 1 | .000 |
| N of Valid Cases | 369 |  |  |
| a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .24. | | | |

Below is the interpretation and summary of the SPSS Crosstabs results for the variable \*\*"Importance of variety"\*\* across different demographic variables (Age, Gender, Occupation, Monthly Income Range). The analysis includes Chi-square tests to assess the significance of relationships.

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### \*\*Summary Table: Importance of Variety Across Demographics\*\*

| \*\*Demographic Variable\*\* | \*\*Response Category\*\* | \*\*Frequency (N)\*\* | \*\*Percent of Total Cases\*\* | \*\*Chi-Square Test Results\*\* |

|---------------------------|------------------------------|--------------------|----------------------------|--------------------------------------------------------------------------------------------|

| \*\*Age\*\* | Not important at all | 69 | 18.7% | Significant relationship (p < 0.001) |

| | Not very important | 6 | 1.6% | Most "Not important at all" responses from those aged 25–34 and 45+. |

| | Neutral | 93 | 25.2% | "Very important" most common among younger groups (Under 18 and 18–24). |

| | Somewhat important | 96 | 26.0% | |

| | Very important | 105 | 28.5% | |

| \*\*Gender\*\* | Not important at all | 69 | 18.7% | Significant relationship (p < 0.001) |

| | Not very important | 6 | 1.6% | Males more likely to find variety "Not important at all" compared to females. |

| | Neutral | 93 | 25.2% | Females more likely to find variety "Somewhat important" or "Very important." |

| | Somewhat important | 96 | 26.0% | |

| | Very important | 105 | 28.5% | |

| \*\*Occupation\*\* | Not important at all | 69 | 18.7% | Significant relationship (p < 0.001) |

| | Not very important | 6 | 1.6% | Self-employed individuals more likely to find variety "Not important at all." |

| | Neutral | 93 | 25.2% | "Very important" most common among working professionals and "Other" categories. |

| | Somewhat important | 96 | 26.0% | |

| | Very important | 105 | 28.5% | |

| \*\*Monthly Income Range\*\* | Not important at all | 69 | 18.7% | Significant relationship (p < 0.001) |

| | Not very important | 6 | 1.6% | Those earning less than EGP 5,000 and EGP 10,001–20,000 more likely to find it "Neutral." |

| | Neutral | 93 | 25.2% | |

| | Somewhat important | 96 | 26.0% | |

| | Very important | 105 | 28.5% | |

---

### \*\*Key Findings\*\*

1. \*\*Age\*\*:

- \*\*Significant Relationship\*\*: The importance of variety varies significantly by age group (p < 0.001).

- \*\*Younger Groups\*\*: Respondents under 18 and aged 18–24 are most likely to consider variety "Very important."

- \*\*Older Groups\*\*: Those aged 25–34 and 45+ are more likely to find variety "Not important at all."

2. \*\*Gender\*\*:

- \*\*Significant Relationship\*\*: Gender significantly influences perceptions of variety (p < 0.001).

- \*\*Males\*\*: More likely to find variety "Not important at all" or "Neutral."

- \*\*Females\*\*: More likely to consider variety "Somewhat important" or "Very important."

3. \*\*Occupation\*\*:

- \*\*Significant Relationship\*\*: Occupational differences in perceptions of variety are significant (p < 0.001).

- \*\*Self-Employed\*\*: Most likely to find variety "Not important at all."

- \*\*Working Professionals\*\*: Most likely to consider variety "Very important."

- \*\*"Other" Categories\*\*: Also tend to find variety "Very important."

4. \*\*Monthly Income Range\*\*:

- \*\*Significant Relationship\*\*: Income range significantly affects perceptions of variety (p < 0.001).

- \*\*Lower Income\*\*: Those earning less than EGP 5,000 or EGP 10,001–20,000 are more likely to find variety "Neutral."

- \*\*Higher Income\*\*: Those earning EGP 5,000–10,000 are more likely to find variety "Not important at all."

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### \*\*Conclusion\*\*

The results indicate that the importance of variety in energy drinks is strongly influenced by demographic factors such as age, gender, occupation, and income range. Key insights include:

- Younger respondents (under 18 and 18–24) prioritize variety more than older groups.

- Females value variety more than males.

- Working professionals and those in "Other" categories place higher importance on variety compared to self-employed individuals.

- Income range also plays a role, with lower-income groups being more neutral about variety.

These findings can help energy drink companies tailor their product offerings and marketing strategies to better align with consumer preferences across different demographics. For example:

- Emphasize variety in campaigns targeting younger consumers and females.

- Highlight other attributes (e.g., price, convenience) for older consumers and those who prioritize variety less.