# Is there a relationship purchase factors and Income range?

**Crosstabs**

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| --- | --- | --- |
| **Notes** | | |
| **Output Created** | | **28-FEB-2025 22:29:00** |
| **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=Income\_Range BY Rank\_Flavor Rank\_Price Rank\_Reputation Rank\_Packaging Rank\_Health**  **Rank\_Availability**  **/FORMAT=DVALUE TABLES**  **/STATISTICS=CHISQ**  **/CELLS=COUNT COLUMN**  **/COUNT ROUND CELL.** |
| **Resources** | **Processor Time** | **00:00:00.02** |
| **Elapsed Time** | **00:00:00.16** |
| **Dimensions Requested** | **2** |
| **Cells Available** | **524245** |

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| **Case Processing Summary** | | | | | | |
|  | **Cases** | | | | | |
| **Valid** | | **Missing** | | **Total** | |
| **N** | **Percent** | **N** | **Percent** | **N** | **Percent** |
| **Q6: Monthly income range. \* Q9: Flavor influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |
| **Q6: Monthly income range. \* Q9: Price influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |
| **Q6: Monthly income range. \* Q9: Reputation influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |
| **Q6: Monthly income range. \* Q9: Packaging influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |
| **Q6: Monthly income range. \* Q9: Health influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |
| **Q6: Monthly income range. \* Q9: Availability influnces purchase rank.** | **369** | **99.7%** | **1** | **0.3%** | **370** | **100.0%** |

**Q6: Monthly income range. \* Q9: Flavor influnces purchase rank.**

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| **Crosstab** | | | | | | | | |
|  | | | **Q9: Flavor influnces purchase rank.** | | | | | **Total** |
| **Extremely Important** | **Important** | **Moderatly Important** | **Slightly Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Flavor influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **8.6%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **39** | **15** | **15** | **0** | **24** | **93** |
| **% within Q9: Flavor influnces purchase rank.** | **26.0%** | **100.0%** | **100.0%** | **0.0%** | **13.8%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **69** | **0** | **0** | **0** | **105** | **174** |
| **% within Q9: Flavor influnces purchase rank.** | **46.0%** | **0.0%** | **0.0%** | **0.0%** | **60.3%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **42** | **0** | **0** | **15** | **30** | **87** |
| **% within Q9: Flavor influnces purchase rank.** | **28.0%** | **0.0%** | **0.0%** | **100.0%** | **17.2%** | **23.6%** |
| **Total** | | **Count** | **150** | **15** | **15** | **15** | **174** | **369** |
| **% within Q9: Flavor influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **172.330a** | **12** | **.000** |
| **Likelihood Ratio** | **166.122** | **12** | **.000** |
| **Linear-by-Linear Association** | **1.038** | **1** | **.308** |
| **N of Valid Cases** | **369** |  |  |
| **a. 9 cells (45.0%) have expected count less than 5. The minimum expected count is .61.** | | | |

**Q6: Monthly income range. \* Q9: Price influnces purchase rank.**

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| **Crosstab** | | | | | | | | | |
|  | | | **Q9: Price influnces purchase rank.** | | | | | | **Total** |
| **Extremely Important** | **Very Important** | **Important** | **Moderatly Important** | **Slightly Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Price influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **17.9%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **45** | **30** | **0** | **9** | **0** | **9** | **93** |
| **% within Q9: Price influnces purchase rank.** | **30.6%** | **55.6%** | **0.0%** | **37.5%** | **0.0%** | **10.7%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **69** | **0** | **45** | **15** | **15** | **30** | **174** |
| **% within Q9: Price influnces purchase rank.** | **46.9%** | **0.0%** | **100.0%** | **62.5%** | **100.0%** | **35.7%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **33** | **24** | **0** | **0** | **0** | **30** | **87** |
| **% within Q9: Price influnces purchase rank.** | **22.4%** | **44.4%** | **0.0%** | **0.0%** | **0.0%** | **35.7%** | **23.6%** |
| **Total** | | **Count** | **147** | **54** | **45** | **24** | **15** | **84** | **369** |
| **% within Q9: Price influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **195.531a** | **15** | **.000** |
| **Likelihood Ratio** | **234.543** | **15** | **.000** |
| **Linear-by-Linear Association** | **.107** | **1** | **.743** |
| **N of Valid Cases** | **369** |  |  |
| **a. 7 cells (29.2%) have expected count less than 5. The minimum expected count is .61.** | | | |

**Q6: Monthly income range. \* Q9: Reputation influnces purchase rank.**

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| **Crosstab** | | | | | | | | | |
|  | | | **Q9: Reputation influnces purchase rank.** | | | | | | **Total** |
| **Extremely Important** | **Very Important** | **Important** | **Moderatly Important** | **Slightly Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Reputation influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **12.5%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **30** | **15** | **15** | **18** | **15** | **0** | **93** |
| **% within Q9: Reputation influnces purchase rank.** | **22.7%** | **50.0%** | **38.5%** | **54.5%** | **100.0%** | **0.0%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **69** | **15** | **0** | **0** | **0** | **90** | **174** |
| **% within Q9: Reputation influnces purchase rank.** | **52.3%** | **50.0%** | **0.0%** | **0.0%** | **0.0%** | **75.0%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **33** | **0** | **24** | **15** | **0** | **15** | **87** |
| **% within Q9: Reputation influnces purchase rank.** | **25.0%** | **0.0%** | **61.5%** | **45.5%** | **0.0%** | **12.5%** | **23.6%** |
| **Total** | | **Count** | **132** | **30** | **39** | **33** | **15** | **120** | **369** |
| **% within Q9: Reputation influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **225.344a** | **15** | **.000** |
| **Likelihood Ratio** | **279.950** | **15** | **.000** |
| **Linear-by-Linear Association** | **2.938** | **1** | **.087** |
| **N of Valid Cases** | **369** |  |  |
| **a. 7 cells (29.2%) have expected count less than 5. The minimum expected count is .61.** | | | |

**Q6: Monthly income range. \* Q9: Packaging influnces purchase rank.**

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| **Crosstab** | | | | | | | | | |
|  | | | **Q9: Packaging influnces purchase rank.** | | | | | | **Total** |
| **Extremely Important** | **Very Important** | **Important** | **Moderatly Important** | **Slightly Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Packaging influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **12.5%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **30** | **0** | **39** | **24** | **0** | **0** | **93** |
| **% within Q9: Packaging influnces purchase rank.** | **27.8%** | **0.0%** | **61.9%** | **100.0%** | **0.0%** | **0.0%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **54** | **15** | **0** | **0** | **15** | **90** | **174** |
| **% within Q9: Packaging influnces purchase rank.** | **50.0%** | **62.5%** | **0.0%** | **0.0%** | **50.0%** | **75.0%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **24** | **9** | **24** | **0** | **15** | **15** | **87** |
| **% within Q9: Packaging influnces purchase rank.** | **22.2%** | **37.5%** | **38.1%** | **0.0%** | **50.0%** | **12.5%** | **23.6%** |
| **Total** | | **Count** | **108** | **24** | **63** | **24** | **30** | **120** | **369** |
| **% within Q9: Packaging influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **252.876a** | **15** | **.000** |
| **Likelihood Ratio** | **307.908** | **15** | **.000** |
| **Linear-by-Linear Association** | **.257** | **1** | **.612** |
| **N of Valid Cases** | **369** |  |  |
| **a. 6 cells (25.0%) have expected count less than 5. The minimum expected count is .98.** | | | |

**Q6: Monthly income range. \* Q9: Health influnces purchase rank.**

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| **Crosstab** | | | | | | | |
|  | | | **Q9: Health influnces purchase rank.** | | | | **Total** |
| **Extremely Important** | **Very Important** | **Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Health influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **12.5%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **60** | **9** | **24** | **0** | **93** |
| **% within Q9: Health influnces purchase rank.** | **39.2%** | **15.8%** | **61.5%** | **0.0%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **69** | **15** | **0** | **90** | **174** |
| **% within Q9: Health influnces purchase rank.** | **45.1%** | **26.3%** | **0.0%** | **75.0%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **24** | **33** | **15** | **15** | **87** |
| **% within Q9: Health influnces purchase rank.** | **15.7%** | **57.9%** | **38.5%** | **12.5%** | **23.6%** |
| **Total** | | **Count** | **153** | **57** | **39** | **120** | **369** |
| **% within Q9: Health influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **181.653a** | **9** | **.000** |
| **Likelihood Ratio** | **216.438** | **9** | **.000** |
| **Linear-by-Linear Association** | **.007** | **1** | **.936** |
| **N of Valid Cases** | **369** |  |  |
| **a. 3 cells (18.8%) have expected count less than 5. The minimum expected count is 1.59.** | | | |

**Q6: Monthly income range. \* Q9: Availability influnces purchase rank.**

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| **Crosstab** | | | | | | | | | |
|  | | | **Q9: Availability influnces purchase rank.** | | | | | | **Total** |
| **Extremely Important** | **Very Important** | **Important** | **Moderatly Important** | **Slightly Important** | **Least Important** |
| **Q6: Monthly income range.** | **EGP 20,001–30,000** | **Count** | **0** | **0** | **0** | **0** | **0** | **15** | **15** |
| **% within Q9: Availability influnces purchase rank.** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **11.6%** | **4.1%** |
| **EGP 10,001–20,000** | **Count** | **36** | **0** | **39** | **9** | **9** | **0** | **93** |
| **% within Q9: Availability influnces purchase rank.** | **30.0%** | **0.0%** | **68.4%** | **37.5%** | **37.5%** | **0.0%** | **25.2%** |
| **EGP 5,000–10,000** | **Count** | **60** | **0** | **0** | **0** | **15** | **99** | **174** |
| **% within Q9: Availability influnces purchase rank.** | **50.0%** | **0.0%** | **0.0%** | **0.0%** | **62.5%** | **76.7%** | **47.2%** |
| **Less than EGP 5,000** | **Count** | **24** | **15** | **18** | **15** | **0** | **15** | **87** |
| **% within Q9: Availability influnces purchase rank.** | **20.0%** | **100.0%** | **31.6%** | **62.5%** | **0.0%** | **11.6%** | **23.6%** |
| **Total** | | **Count** | **120** | **15** | **57** | **24** | **24** | **129** | **369** |
| **% within Q9: Availability influnces purchase rank.** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

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| **Chi-Square Tests** | | | |
|  | **Value** | **df** | **Asymptotic Significance (2-sided)** |
| **Pearson Chi-Square** | **249.291a** | **15** | **.000** |
| **Likelihood Ratio** | **302.205** | **15** | **.000** |
| **Linear-by-Linear Association** | **.739** | **1** | **.390** |
| **N of Valid Cases** | **369** |  |  |
| **a. 7 cells (29.2%) have expected count less than 5. The minimum expected count is .61.** | | | |

Below is the interpretation and summary of the SPSS Crosstabs results for the relationship between \*\*Monthly Income Range\*\* and various factors influencing purchase decisions (Flavor, Price, Reputation, Packaging, Health, Availability). The analysis includes Chi-square tests to assess the significance of relationships.

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### \*\*Summary Table: Relationship Between Monthly Income Range and Purchase Decision Factors\*\*

| \*\*Factor\*\* | \*\*Income Range\*\* | \*\*Response Category\*\* | \*\*Frequency (N)\*\* | \*\*Percent Within Factor Category\*\* | \*\*Chi-Square Test Results\*\* |

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

| \*\*Flavor\*\* | EGP 20,001–30,000 | Least Important | 15 | 8.6% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Extremely Important | 39 | 26.0% | Consumers in this income range prioritize flavor as "Extremely Important" or "Important." |

| | EGP 5,000–10,000 | Extremely Important | 69 | 46.0% | |

| | Less than EGP 5,000 | Slightly Important | 15 | 100.0% | |

| \*\*Price\*\* | EGP 20,001–30,000 | Least Important | 15 | 17.9% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Extremely Important | 45 | 30.6% | Higher-income groups prioritize price less than lower-income groups. |

| | EGP 5,000–10,000 | Extremely Important | 69 | 46.9% | |

| | Less than EGP 5,000 | Very Important | 24 | 44.4% | |

| \*\*Reputation\*\* | EGP 20,001–30,000 | Least Important | 15 | 12.5% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Moderately Important | 18 | 54.5% | Middle-income earners value reputation more than others. |

| | EGP 5,000–10,000 | Extremely Important | 69 | 52.3% | |

| | Less than EGP 5,000 | Moderately Important | 15 | 45.5% | |

| \*\*Packaging\*\* | EGP 20,001–30,000 | Least Important | 15 | 12.5% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Important | 39 | 61.9% | Higher-income groups prioritize packaging less than middle-income groups. |

| | EGP 5,000–10,000 | Extremely Important | 54 | 50.0% | |

| | Less than EGP 5,000 | Moderately Important | 24 | 38.1% | |

| \*\*Health\*\* | EGP 20,001–30,000 | Least Important | 15 | 12.5% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Important | 24 | 61.5% | Middle-income earners prioritize health more than others. |

| | EGP 5,000–10,000 | Extremely Important | 69 | 45.1% | |

| | Less than EGP 5,000 | Very Important | 33 | 57.9% | |

| \*\*Availability\*\* | EGP 20,001–30,000 | Least Important | 15 | 11.6% | Significant relationship (p < 0.001) |

| | EGP 10,001–20,000 | Moderately Important | 9 | 37.5% | Middle-income earners prioritize availability more than others. |

| | EGP 5,000–10,000 | Extremely Important | 60 | 50.0% | |

| | Less than EGP 5,000 | Very Important | 15 | 100.0% | |

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

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

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and flavor influence (p < 0.001).

- \*\*Higher Income\*\*: Those earning EGP 20,001–30,000 prioritize flavor least, often ranking it as "Least Important."

- \*\*Middle Income\*\*: Those earning EGP 10,001–20,000 and EGP 5,000–10,000 prioritize flavor highly, often ranking it as "Extremely Important."

2. \*\*Price\*\*:

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and price influence (p < 0.001).

- \*\*Lower Income\*\*: Lower-income groups (Less than EGP 5,000) are more likely to rank price as "Very Important."

- \*\*Higher Income\*\*: Higher-income groups (EGP 20,001–30,000) prioritize price less, often ranking it as "Least Important."

3. \*\*Reputation\*\*:

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and reputation influence (p < 0.001).

- \*\*Middle Income\*\*: Middle-income earners (EGP 10,001–20,000) value reputation moderately, often ranking it as "Moderately Important."

- \*\*Higher Income\*\*: Higher-income groups prioritize reputation less, often ranking it as "Least Important."

4. \*\*Packaging\*\*:

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and packaging influence (p < 0.001).

- \*\*Middle Income\*\*: Middle-income earners (EGP 10,001–20,000) value packaging highly, often ranking it as "Important."

- \*\*Higher Income\*\*: Higher-income groups prioritize packaging less, often ranking it as "Least Important."

5. \*\*Health\*\*:

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and health influence (p < 0.001).

- \*\*Lower Income\*\*: Lower-income groups (Less than EGP 5,000) prioritize health highly, often ranking it as "Very Important."

- \*\*Middle Income\*\*: Middle-income earners (EGP 10,001–20,000) value health moderately, often ranking it as "Important."

6. \*\*Availability\*\*:

- \*\*Significant Relationship\*\*: There is a significant relationship between income range and availability influence (p < 0.001).

- \*\*Middle Income\*\*: Middle-income earners (EGP 10,001–20,000) value availability moderately, often ranking it as "Moderately Important."

- \*\*Higher Income\*\*: Higher-income groups prioritize availability less, often ranking it as "Least Important."

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

The results indicate that consumers' perceptions of factors influencing their purchase decisions vary significantly by monthly income range. Key insights include:

- \*\*Flavor\*\*: Middle-income groups prioritize flavor most, while higher-income groups prioritize it least.

- \*\*Price\*\*: Lower-income groups are more price-sensitive, while higher-income groups prioritize price less.

- \*\*Reputation\*\*: Middle-income groups value reputation moderately, while higher-income groups prioritize it less.

- \*\*Packaging\*\*: Middle-income groups value packaging highly, while higher-income groups prioritize it less.

- \*\*Health\*\*: Lower-income groups prioritize health highly, while middle-income groups value it moderately.

- \*\*Availability\*\*: Middle-income groups value availability moderately, while higher-income groups prioritize it less.

Energy drink companies can use these findings to tailor marketing strategies and product offerings to different income segments. For example:

- Highlight flavor and health benefits for middle-income consumers.

- Emphasize affordability and price for lower-income consumers.

- Focus on premium branding and convenience for higher-income consumers.