Descriptive Analysis of Philips Earphones Using Brand Names to Identify Consumer Trends

**Descriptives**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation | Kurtosis | |
| Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error |
| Age | 30 | 18 | 35 | 25.40 | 5.405 | -1.053 | .833 |
| Price ($) Insights | 30 | 15 | 260 | 115.97 | 88.046 | -1.360 | .833 |
| Gender (M/F) | 30 | 1 | 2 | 1.50 | .509 | -2.148 | .833 |
| Employment Status (PT, FT, Other) | 30 | 1 | 3 | 2.13 | .776 | -1.261 | .833 |
| Earbud Type (Wireless, Wired) | 30 | 2 | 3 | 2.83 | .379 | 1.657 | .833 |
| Brand Name & Model | 30 | 2 | 9 | 4.90 | 2.310 | -1.034 | .833 |
| Application Insights | 30 | 2 | 5 | 3.37 | .928 | -.989 | .833 |
| Product Insights | 30 | 2 | 8 | 4.93 | 2.196 | -1.642 | .833 |
| Technological Insights | 30 | 2 | 8 | 4.93 | 1.856 | -.957 | .833 |
| True Wireless or Not | 30 | 1 | 2 | 1.83 | .379 | 1.657 | .833 |
| Valid N (listwise) | 30 |  |  |  |  |  |  |

**Correlations**

|  |  |  |  |
| --- | --- | --- | --- |
| **Descriptive Statistics** | | | |
|  | Mean | Std. Deviation | N |
| Gender (M/F) | 1.50 | .509 | 30 |
| Employment Status (PT, FT, Other) | 2.13 | .776 | 30 |
| Earbud Type (Wireless, Wired) | 2.83 | .379 | 30 |
| Brand Name & Model | 4.90 | 2.310 | 30 |
| Application Insights | 3.37 | .928 | 30 |
| Product Insights | 4.93 | 2.196 | 30 |
| Technological Insights | 4.93 | 1.856 | 30 |
| True Wireless or Not | 1.83 | .379 | 30 |
| Price ($) Insights | 115.97 | 88.046 | 30 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlations** | | | | | | | | | | | |
|  | | Gender (M/F) | Employment Status (PT, FT, Other) | Earbud Type (Wireless, Wired) | Brand Name & Model | Application Insights | Product Insights | Technological Insights | True Wireless or Not | Price ($) Insights |
| Gender (M/F) | Pearson Correlation | 1 | .087 | .089 | .132 | .037 | .154 | .402\* | .089 | .271 |
| Sig. (2-tailed) |  | .646 | .638 | .486 | .848 | .415 | .028 | .638 | .148 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Employment Status (PT, FT, Other) | Pearson Correlation | .087 | 1 | -.039 | -.069 | -.022 | -.217 | .054 | .078 | .088 |
| Sig. (2-tailed) | .646 |  | .838 | .716 | .907 | .249 | .776 | .681 | .644 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Earbud Type (Wireless, Wired) | Pearson Correlation | .089 | -.039 | 1 | .374\* | -.016 | -.262 | .033 | .760\*\* | .247 |
| Sig. (2-tailed) | .638 | .838 |  | .042 | .932 | .161 | .864 | <.001 | .189 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Brand Name & Model | Pearson Correlation | .132 | -.069 | .374\* | 1 | -.063 | .094 | -.146 | .374\* | .078 |
| Sig. (2-tailed) | .486 | .716 | .042 |  | .742 | .622 | .440 | .042 | .680 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Application Insights | Pearson Correlation | .037 | -.022 | -.016 | -.063 | 1 | .148 | -.025 | -.016 | .027 |
| Sig. (2-tailed) | .848 | .907 | .932 | .742 |  | .436 | .894 | .932 | .888 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Product Insights | Pearson Correlation | .154 | -.217 | -.262 | .094 | .148 | 1 | .261 | -.097 | -.223 |
| Sig. (2-tailed) | .415 | .249 | .161 | .622 | .436 |  | .163 | .611 | .237 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Technological Insights | Pearson Correlation | .402\* | .054 | .033 | -.146 | -.025 | .261 | 1 | -.016 | .206 |
| Sig. (2-tailed) | .028 | .776 | .864 | .440 | .894 | .163 |  | .932 | .276 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| True Wireless or Not | Pearson Correlation | .089 | .078 | .760\*\* | .374\* | -.016 | -.097 | -.016 | 1 | .308 |
| Sig. (2-tailed) | .638 | .681 | <.001 | .042 | .932 | .611 | .932 |  | .098 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Price ($) Insights | Pearson Correlation | .271 | .088 | .247 | .078 | .027 | -.223 | .206 | .308 | 1 |
| Sig. (2-tailed) | .148 | .644 | .189 | .680 | .888 | .237 | .276 | .098 |  |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| \*. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | | | |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | | | |

Regression

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model Summaryb** | | | | | | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .410a | .168 | .072 | 2.225 | .168 | 1.750 | 3 | 26 | .181 |
| a. Predictors: (Constant), Earbud Type (Wireless, Wired), Gender (M/F), True Wireless or Not | | | | | | | | | |
| b. Dependent Variable: Brand Name & Model | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | -1.655 | 3.305 |  | -.501 | .621 |
| Gender (M/F) | .431 | .816 | .095 | .528 | .602 |
| True Wireless or Not | 1.266 | 1.678 | .208 | .755 | .457 |
| Earbud Type (Wireless, Wired) | 1.266 | 1.678 | .208 | .755 | .457 |
| a. Dependent Variable: Brand Name & Model | | | | | | |

**Interpretation of the Analysis**

**Descriptive Statistics**

**Key Findings**

The Mean Price of Wireless earphones across the studied brands is $115.97 while the maximum price is $260, and the minimum price is $15 from our observations.

The Mean Age of the population is 25 years while the minimum age is 18 and the maximum age is 35 years.

The Mean value of the Brand Name is 4.90 while the maximum value is 9, and the minimum value is 2.

The population size is 30. (That is, N = 30)

**Correlation Analysis**

**Key Findings**

From the correlation table, we can identify the variables showing significant relationship to our chosen dependent variable which is Brand Name & Model. These significant variables are:

1. Gender (M/F)
2. Earbud Type (Wireless, Wired)
3. True Wireless or Not

With this, we can then run our regression analysis to determine what is the percentage variability of our predictive factors within our population.

**Regression Analysis**

**Key Findings**

After running the regression analysis, we found out that the predictors represented 16.8% of consumer patterns towards the purchase of our product under consideration.