**Plot scatter plots between User Perceived Value and 15 observed Product Specific Parameters.**

1. Cross Sectional Area

A screenshot of a cell phone

Description automatically generated  
**Figure 9**: Cross Sectional Area

Coefficient of correlation = 0.08877021.

1. Volume of the product

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**Figure 10**: Cross Sectional Area

Coefficient of correlation = 0.0888123.

1. Weight of the product

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**Figure 11**: Cross Sectional Area

Coefficient of correlation = 0.06832189.

1. Density

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**Figure 12**: Cross Sectional Area

Coefficient of correlation = 0.09515333

1. Height of the product

A screenshot of a cell phone

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**Figure 13**: Cross Sectional Area

Coefficient of correlation = 0.3150382.

1. Length of the product

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**Figure 14**: Cross Sectional Area

Coefficient of correlation = -0.02456318

1. Breadth of the product

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**Figure 15**: Cross Sectional Area

Coefficient of correlation = -0.23709896

1. Volume of the Box

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**Figure 16**: Cross Sectional Area

Coefficient of correlation = 0.08877021

Except length and breadth all product level parameters show positive correlation with user perceived value. From an interview with user it was established that length and breadth can’t be negatively related with user perceived value as according to the user’s value perceived by them should increases. Hence length and breadth are not considered for multi-regression model.

**Step-3: Fit Model**

Using R, different models were built by varying the set of parameters used. Image below show the intercept and coefficient for various model we simulated.

A screenshot of a cell phone

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**Figure 17:** Designation for modelling parameters

A screenshot of a social media post

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**Figure 18**: Code for R language

A screenshot of a social media post

Description automatically generated

**Figure 19:** Code for R language

A screenshot of a social media post

Description automatically generated

**Figure 20**: Code for R language

A screenshot of a social media post

Description automatically generated

**Figure 21**: Code for R language

A screenshot of a cell phone

Description automatically generated

**Figure 21 :** Code for R language

Except for the multi-regression, which user perceived value with density and height, have all positive coefficient. All other models one or more negative coefficient and according to the users all the product level parameters should positively relate to user perceived value. Hence, multi-regression, which user perceived value with density and height is used.

A picture containing knife

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**Figure 22 :** Code for R language

As per above model user perceived value is have the following relationship with height and density of product:

User perceived value = 13.7294+ 0.0436\* Height + 30.0611\* Density