**Housing Price Prediction Model for D.M. Pan National Real Estate Company**

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# Housing Price Prediction Model for D.M. Pan National Real Estate Company

## Module Two Notes

Making informed decisions is essential for success in every business. Real estate business

stakeholders rely on data analysts’ insights before making decisions. This paper provides a report

examining the relationship between a property’s selling price and the size of square feet in a

national real estate company. This report will provide an analysis of whether the two variables

have a relationship and whether it is positive or negative. Finally, this report gives the usefulness of the linear regression equation in estimating the price and the range where it is more useful.

## Regression Equation

y = 82.128x + 83548

## Determine

R is 0.902251. This is the correlation between the two variables, listing price and square feet. It is used to explain the relationship between two variables. In this case, there is a strong positive correlation between the two variables. An increase in one variable leads to an increase in the other variable, and vice versa.

## Examine the Slope and Intercepts

The linear regression equation is y = 82.128x + 83548. In this case, the slope is 82.128x, while the intercept is 83548. The slope is used to present the price for each square foot. The intercept presents the price of the land when there are no single square feet. In other words, this is the price of the land alone. The value of land alone will be $83548.

## R-squared Coefficient

From the scatterplot, the R-squared coefficient is 0.8141. This implies that 81.41% variation of the listing price is due to the square feet. The remaining percentage can be explained by other factors.

## Conclusions

In the East North Central Region, the square feet and listing price have a strong positive correlation of 0.9022. An increase in one variable affects the other variable positively. The correlation between listing price and square feet in the national market is 0.823977. The slight variation might be due to market factors in other regions.

The slope can be used to identify the price change by determining the value of each square foot. From the equation, the value of each square foot is $ 82.128. The regression equation can be used to identify the appropriate price by replacing the number of required square feet with the x value in the equation. This will give an accurate estimation of the prices. This linear regression equation is best for price estimation for square footage ranging from 1000 to 4000. This is because in the sample data where the linear regression equation was generated, the values for square feet range between these values.