**Assessing the Transition Towards Carbon Neutrality. A Study of European Companies' Adoption, Barriers, and Strategies.**

**Model that will be adopted**

The Linear regression will be used to investigate the relationship between the explanatory factors and the research question. In this context, the degree to which we have progressed toward our goal of zero emissions will be measured on a scale or with a yes/no conclusion (such as whether or not firms will commit to setting carbon neutrality targets).

The dependent variable will be the rate at which the company is making progress toward carbon neutrality; this may take the shape of a percentage reduction in carbon emissions or a yes/no indicator of the company's commitment to carbon neutrality.

The independent variables will include:

* Company Size (e.g., measured as revenue, number of employees)
* Sector (e.g., manufacturing, transportation, energy)
* Financial resources allocated to sustainability initiatives
* Regulatory environment
* Technological capabilities
* Collaboration with stakeholders

To investigate the relationship between the dependent variable (Level of progress toward carbon neutrality) and the other variables, this study will utilize linear regression. The estimated coefficients (slope) from a regression model reveal the strength and direction of the relationship between each independent variable and the dependent variable. The equation of the linear model will be as follow:

Y = βo + β1X1 + β2X2 +β3X3 + β4X4 + β5X5 + β6X6  
Where;

Y = Level of progress towards carbon neutrality.

* X1 = Company Size (e.g., measured as revenue, number of employees)
* X2 = Sector (e.g., manufacturing, transportation, energy)
* X3 = Financial resources allocated to sustainability initiatives
* X4 = Regulatory environment
* X5 = Technological capabilities
* X6 = Collaboration with stakeholders

βo is the intercept.

β1, β2, β3, β4, β5, and β6 are the regression coefficients or the slopes.