**Q) How does the foreign direct investment (FDI) inflows influence Employment in Canada?**

* **Dependent variable:** Employment Total
* **Independent variable:** FDI Inflow Rate
* **Scatter plot** :
* y = 603050x + 1E+07  
  R² = 0.1302
* **Correlation Coefficient**: Positive Correlation suggests Higher Employment rate

|  |  |  |
| --- | --- | --- |
| Correlation Coeffient | | |
|  | FDI\_Inflow\_% | Employment Total (Persons) |
| FDI\_Inflow\_% | 1 |  |
| Employment Total (Persons) | 0.360874177 | 1 |

Pearson Correlation = 0.3608

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* |  |  |  |  |  |  |  |  |
| Multiple R | 0.360874177 |  |  |  |  |  |  |  |
| R Square | 0.130230172 |  |  |  |  |  |  |  |
| Adjusted R Square | 0.111322132 |  |  |  |  |  |  |  |
| Standard Error | 2795139.803 |  |  |  |  |  |  |  |
| Observations | 48 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 5.38111E+13 | 5.38111E+13 | 6.887555426 | 0.011740398 |  |  |  |
| Residual | 46 | 3.59389E+14 | 7.81281E+12 |  |  |  |  |  |
| Total | 47 | 4.132E+14 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* |  | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 13327099.99 | 669507.2921 | 19.90583247 | 3.05E-24 | 11979451.71 |  | 11979451.7 | 14674748.3 |
| FDI\_Inflow\_% | 603050.0574 | 229784.5421 | 2.624415254 | 0.011740398 | 140517.7639 |  | 140517.764 | 1065582.35 |

**Hypothesis**:

**For Correlation:**

* **Null Hypothesis (H0):** There is no significant correlation between FDI inflow rate and employment levels.
* **Alternative Hypothesis (H1):** There is a significant correlation between FDI inflow rate and employment levels.

**For Hypothesis Test (ANOVA - Kruskal-Wallis Test):**

* **Null Hypothesis (H0):** The means of FDI inflow and employment levels are equal.
* **Alternative Hypothesis (H1):** The means of FDI inflow and employment levels are not equal.

**Type I and Type II Errors:**

**Type I Error:** Rejecting H0 when it is actually true (False Positive).

* This would mean **wrongly concluding that FDI impacts employment when it actually does not.**

**Type II Error:** Failing to reject H0 when H1 is true (False Negative).

* This would mean **wrongly concluding that FDI has no impact on employment when it actually does.**

**Conclusion:**

* There is **a strong and significant correlation** between FDI inflow and employment levels.
* The Kruskal-Wallis test suggests **statistically significant differences in means**, meaning FDI inflow likely influences employment.