P-value And Its Significance In Correlation Relationship

What is this P-value? The P-value is the probability value that the correlation between these two variables is statistically significant. Normally, we choose a significance level of 0.05, which means that we are 95% confident that the correlation between the variables is significant.

By convention, when the

p-value is

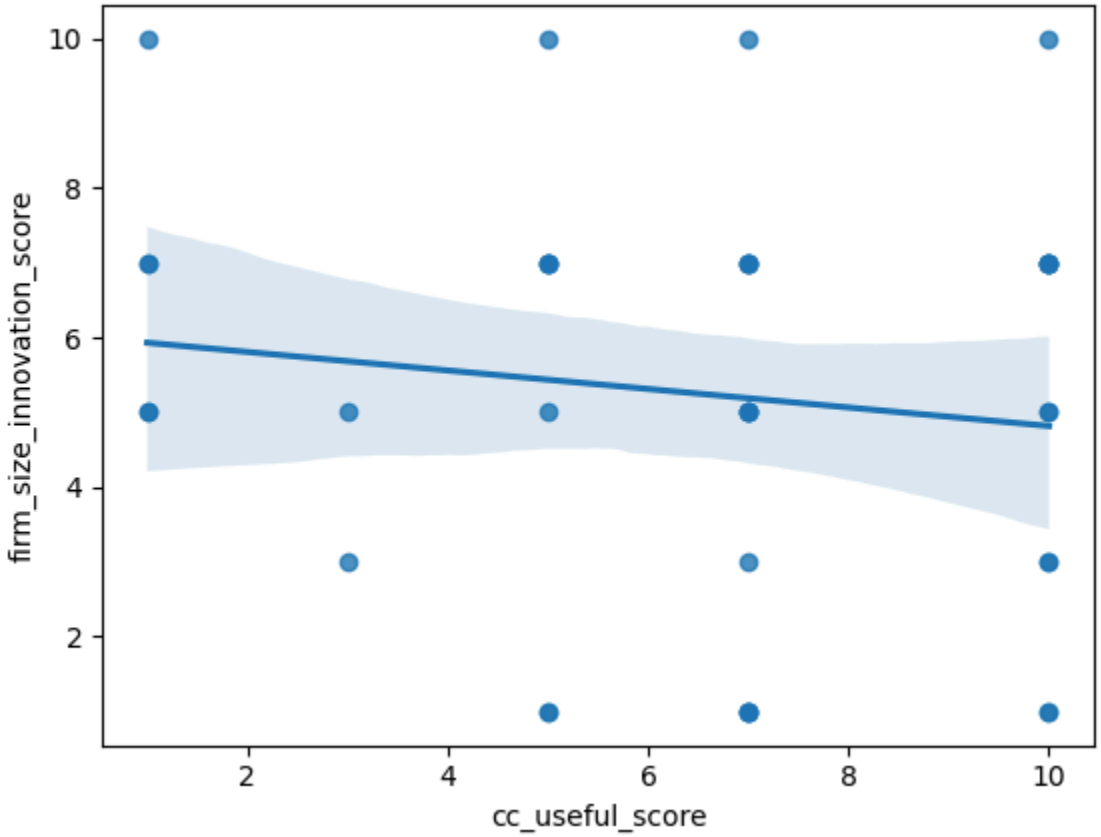
- p-value < 0.001: we say there is strong evidence that the correlation is significant.
- p-value < 0.05: there is moderate evidence that the correlation is significant.
- p-value < 0.1: there is weak evidence that the correlation is significant.
- p-value > 0.1: there is no evidence that the correlation is significant.

R-squared-value And Its Significance In Correlation Relationship

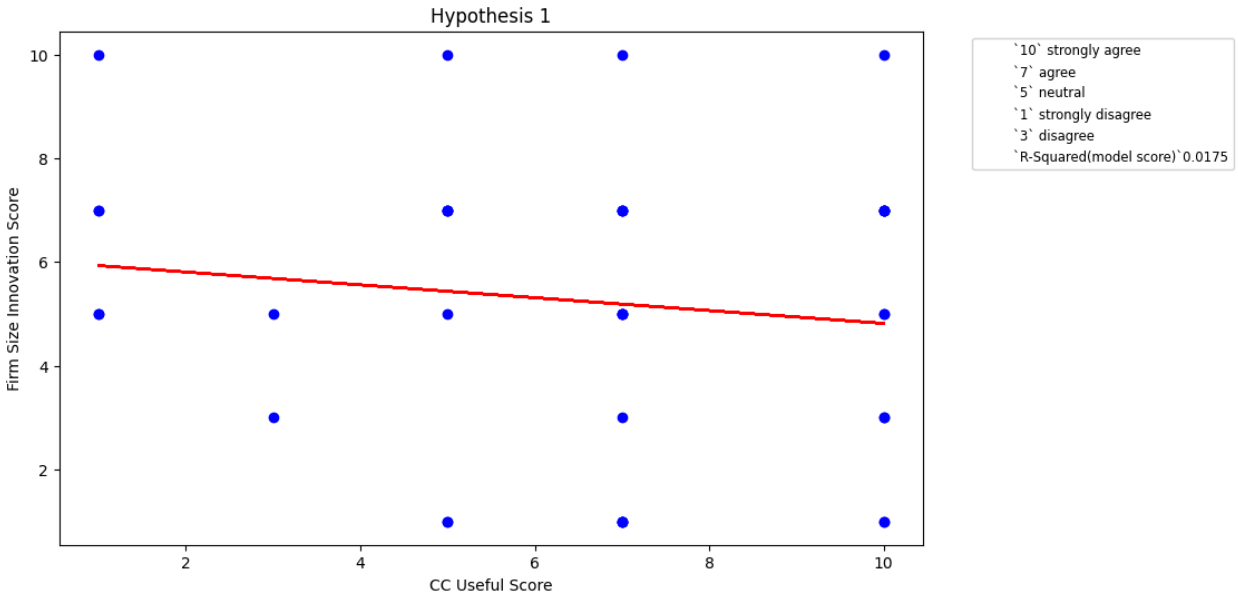
1. **Goodness of Fit**: R2 is a measure of how well the regression line fits the observed data points. A higher R2 value indicates a better fit. If R2=1, it means that the regression line perfectly fits the data.
2. **Prediction Accuracy**: R2 provides insight into the accuracy of predictions made by the regression model. A higher R2 value suggests that the model is better at predicting the dependent variable based on the independent variable(s).
3. **Model Comparison**: When comparing different regression models, R2 can be used to determine which model provides a better fit to the data. The model with the higher R2 value is generally preferred.
4. **Interpretation of Variability**: R2 quantifies the proportion of the total variability in the dependent variable that is explained by the independent variable(s). This helps in understanding the relationship between variables and their impact on the outcome.

Hypothesis 1 : Useful vs Firm Size Innovation Adoption

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.13227588664520976 with a P-value of P = 0.40970238027131806

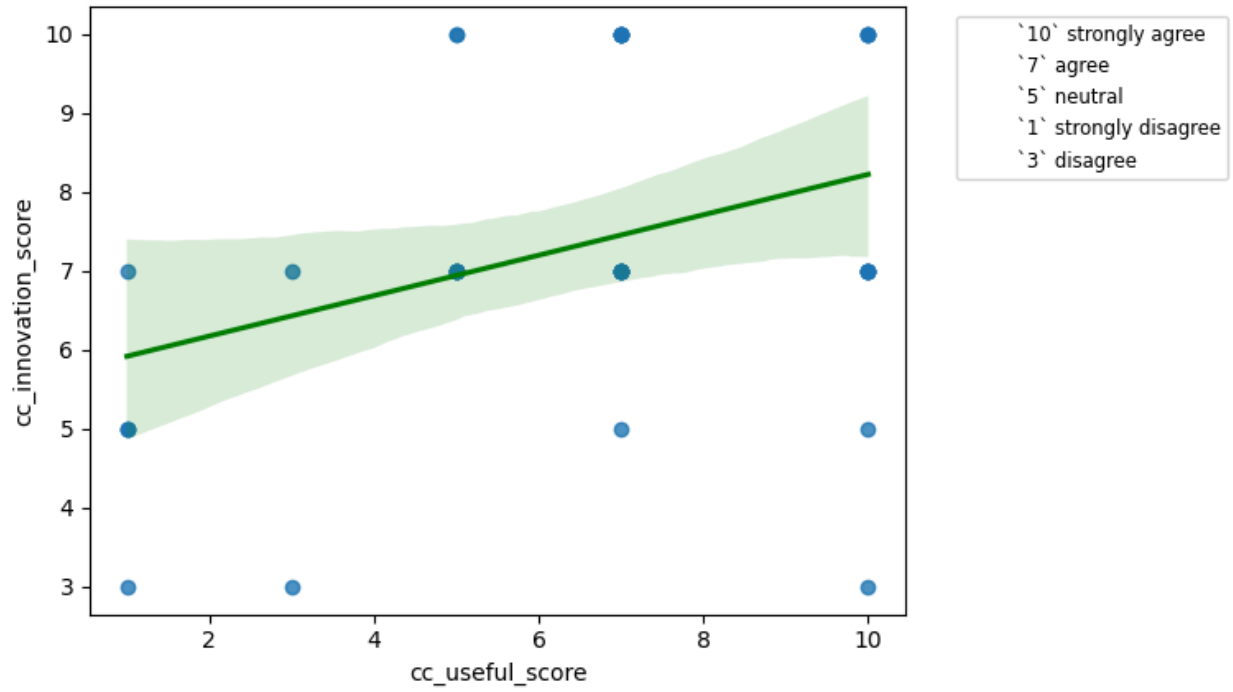


R-squared: 0.017496910187776327

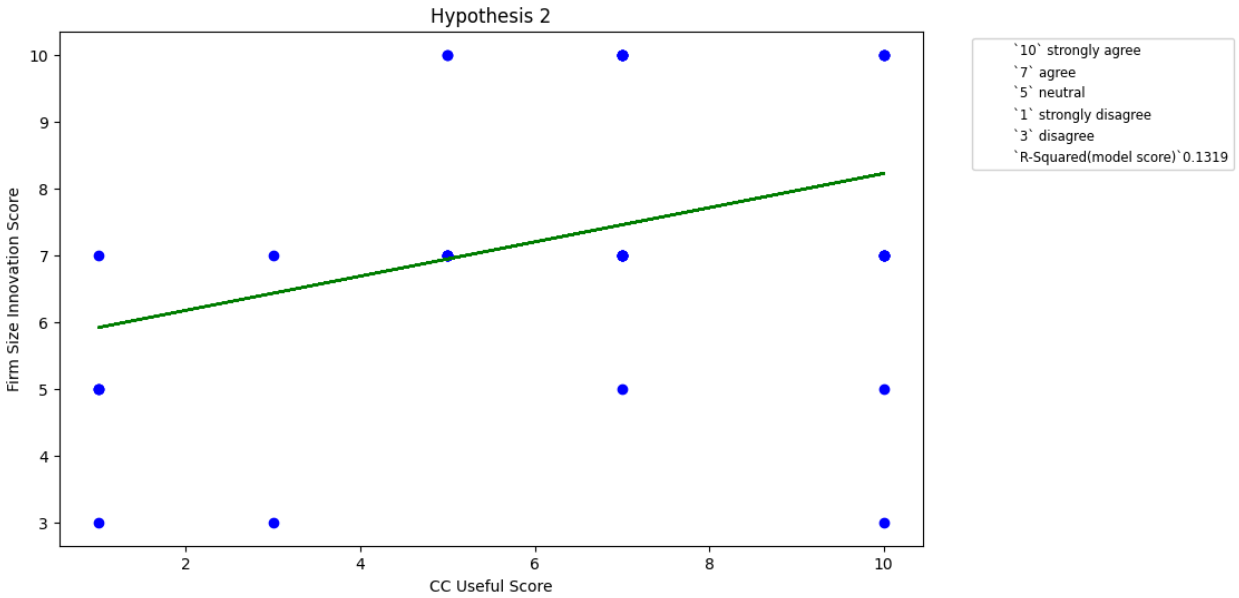
Alternate hypothesis to accept or reject has been rejected.

Hypothesis 2 : Useful_score vs cc Innovation_score

- Strong Linear Correlation Evidence



The Pearson Correlation Coefficient is 0.3631506841368355 with a P-value of P = 0.01961209830537412

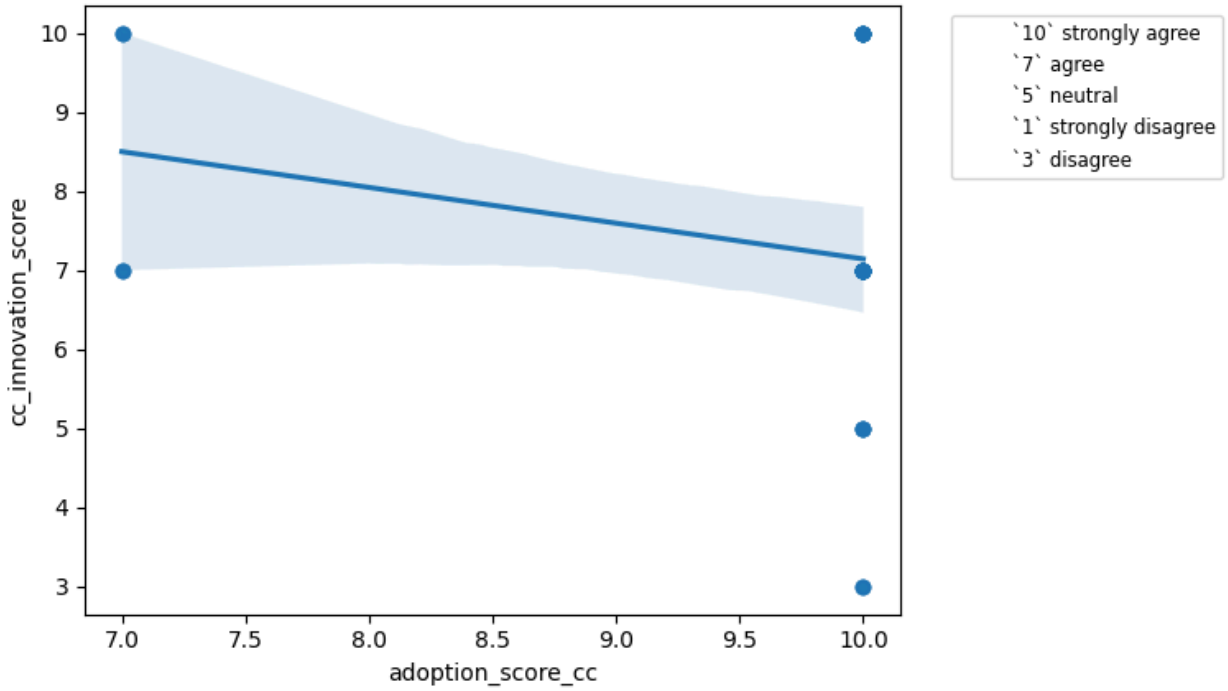


R-squared: 0.13187841938905143

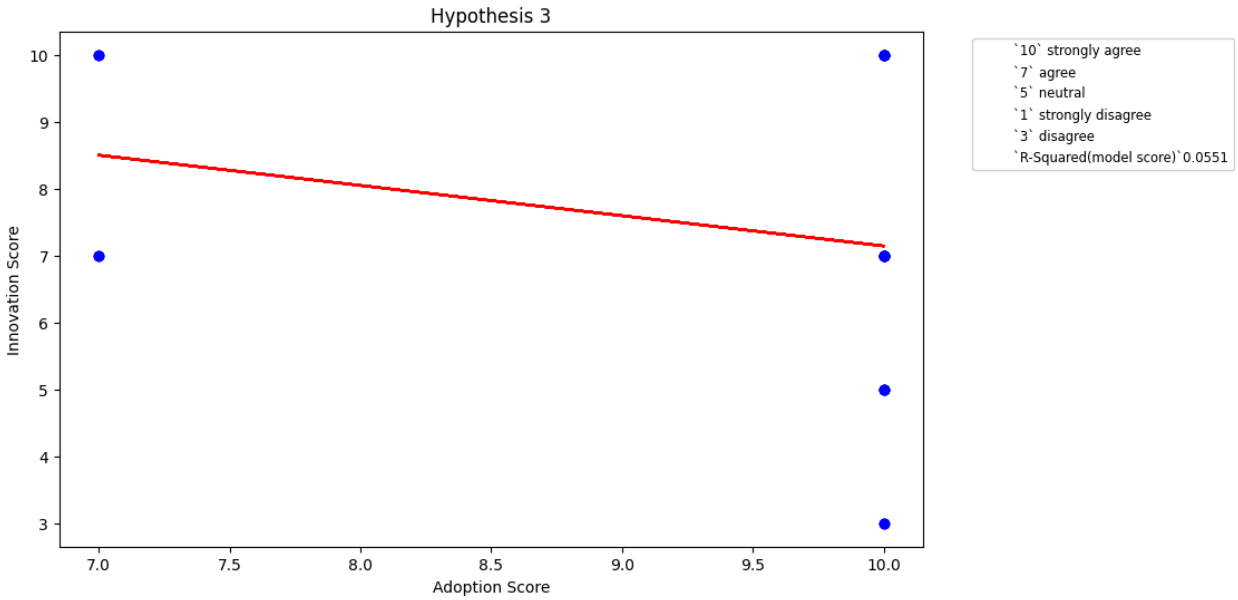
Alternate hypothesis to accept or reject has been accepted.

Hypothesis 3 : Adoption_score_cc vs Innovation_score cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.23472895027601529 with a P-value of P = 0.13960968330425233

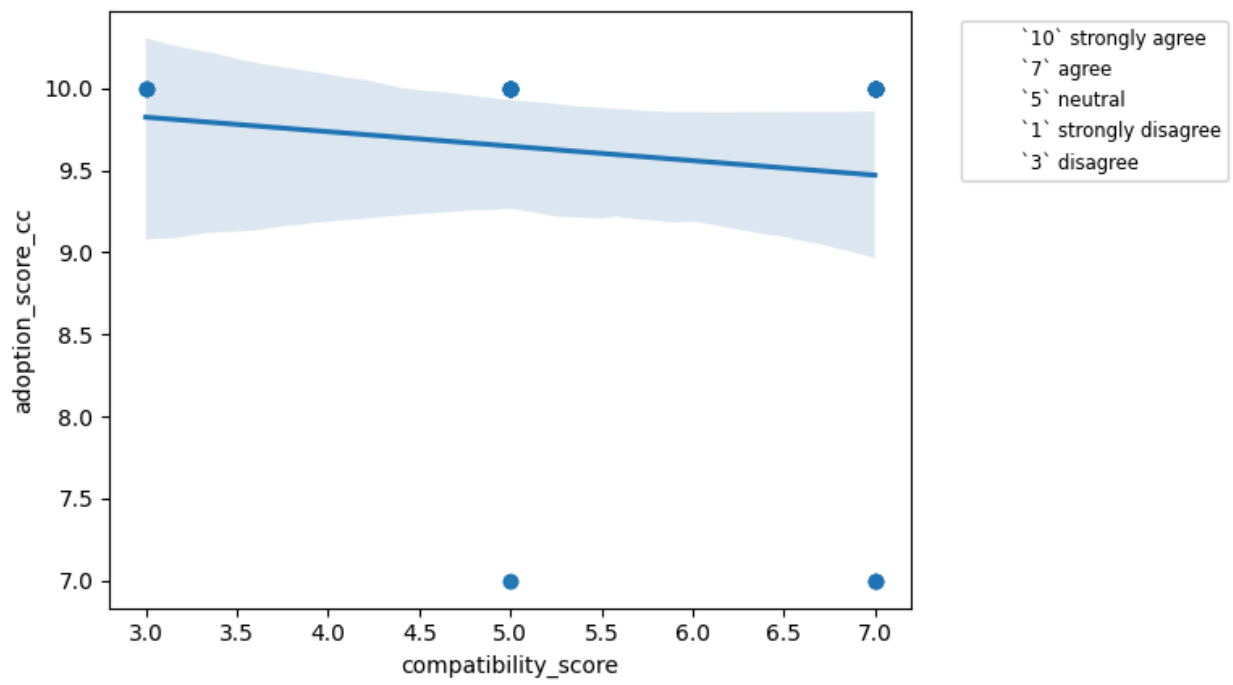


R-squared: 0.055097680097680346

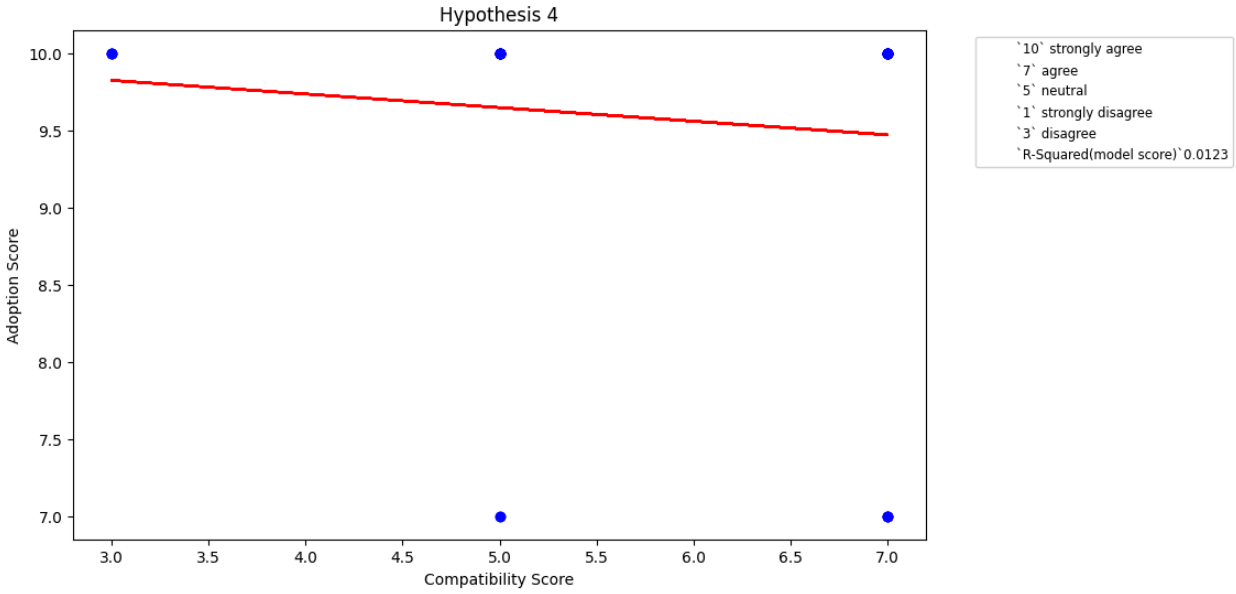
Alternate hypothesis to accept or reject has been rejected

Hypothesis 4 : Compatibility_score vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.11101770116512405 with a P-value of P = 0.4895546912878015

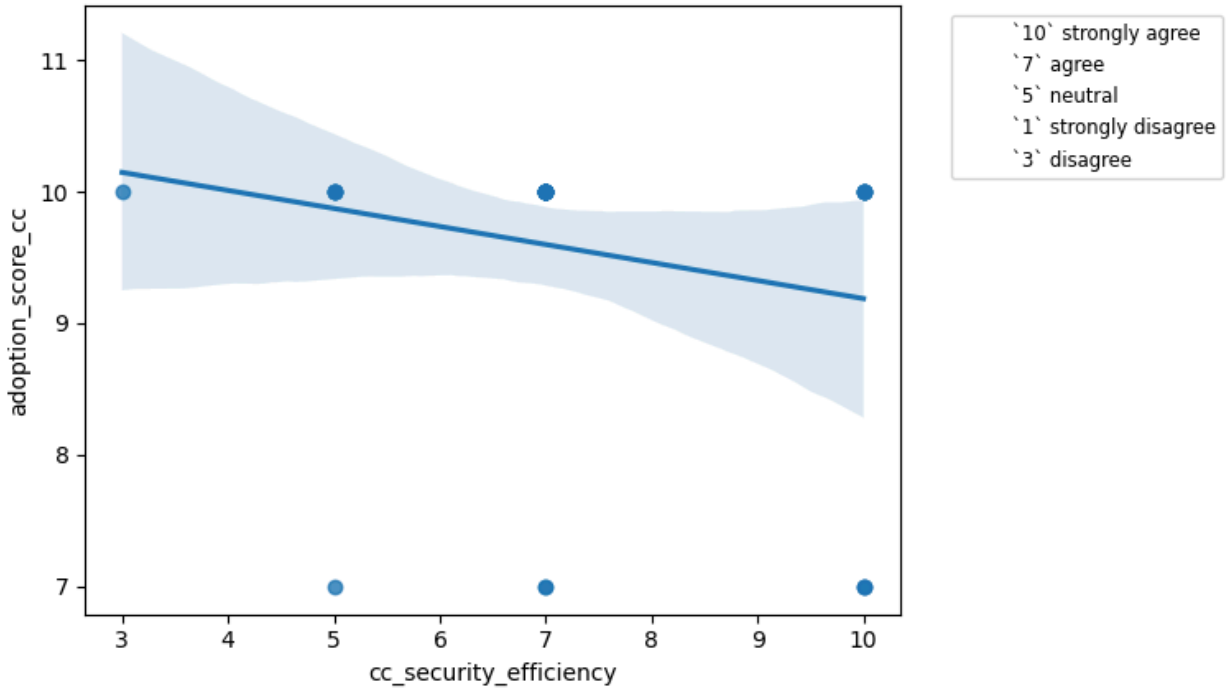


R-squared: 0.012324929971988863

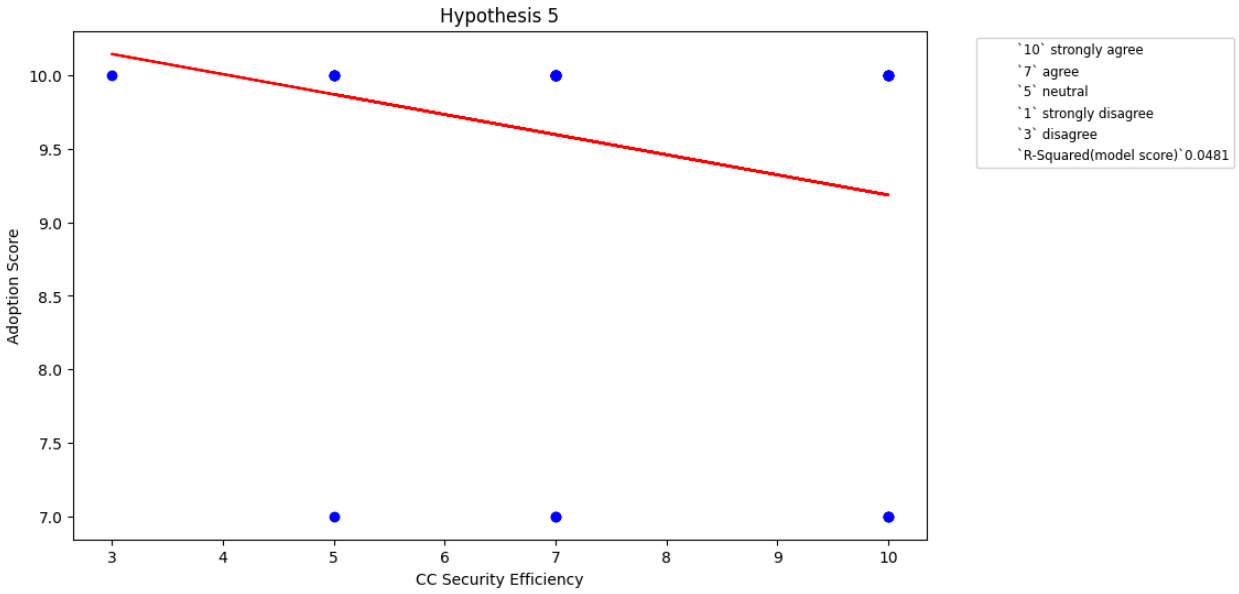
Alternate hypothesis to accept or reject has been rejected

Hypothesis 5 : Security_efficiency cc vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.21920978973706498 with a P-value of P = 0.16850136691065404

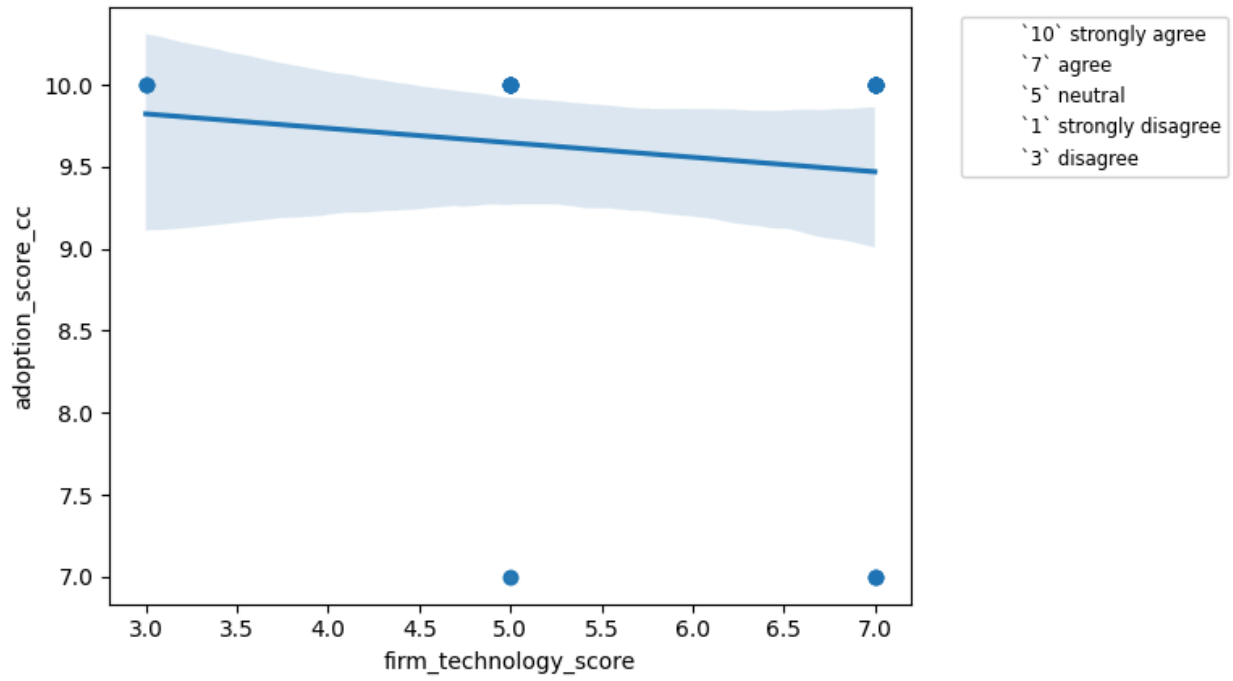


R-squared: 0.04805293191656823

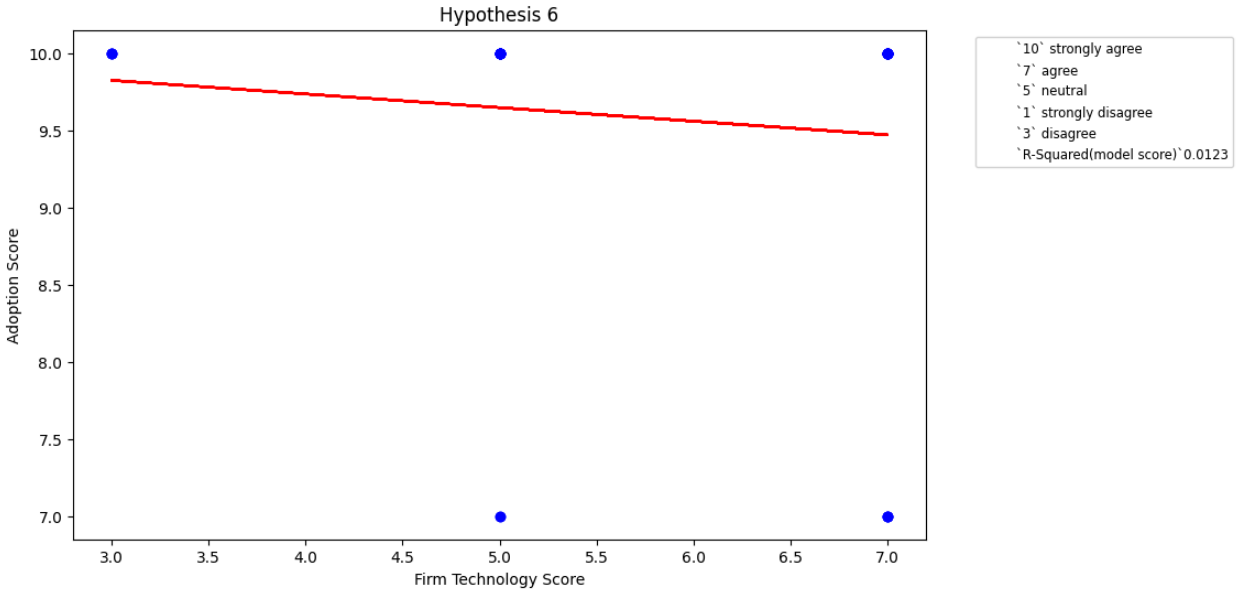
Alternate hypothesis to accept or reject has been rejected

Hypothesis 6 : Firm_technology_score vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.11101770116512405 with a P-value of P = 0.4895546912878015

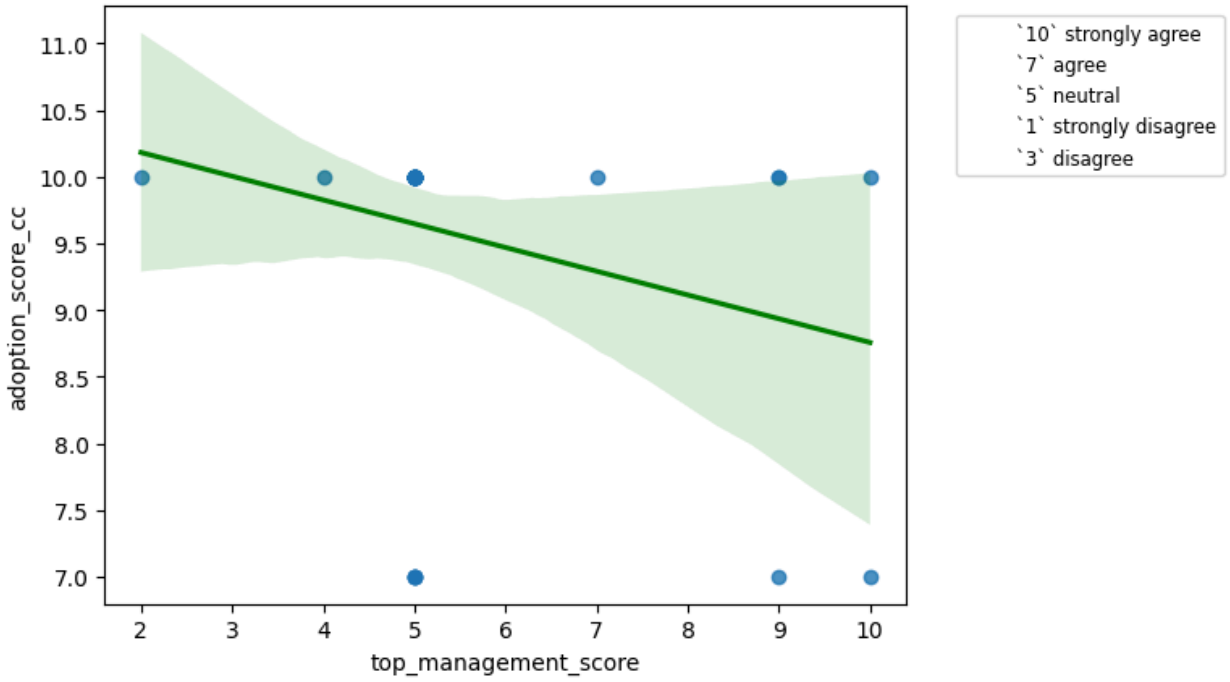


R-squared: 0.012324929971988863

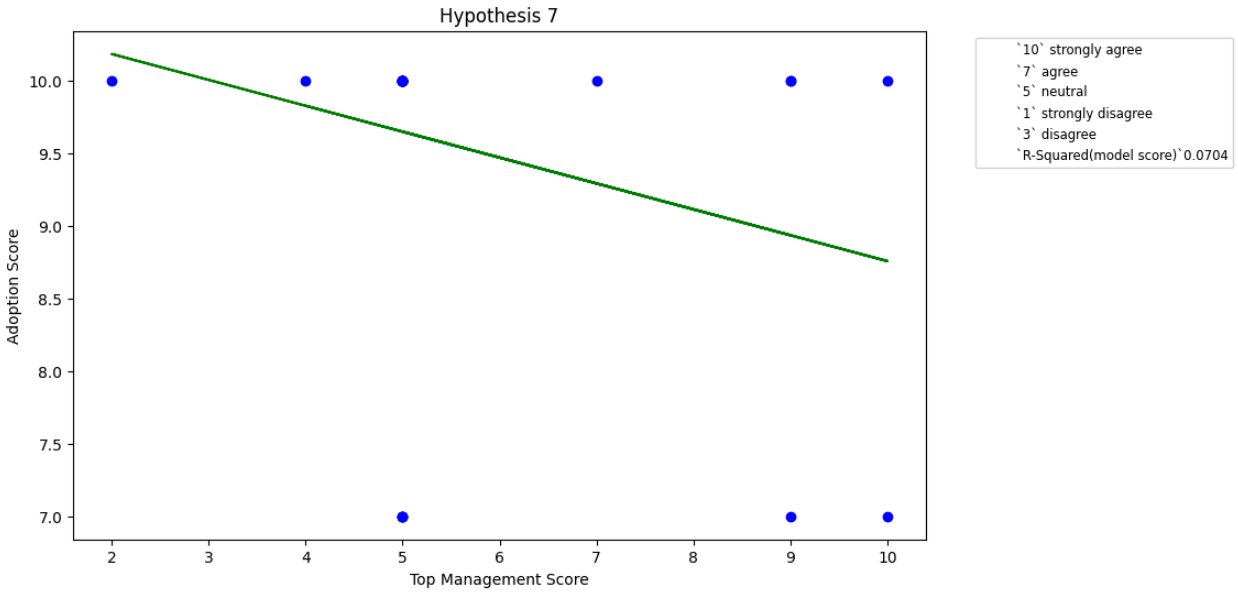
Alternate hypothesis to accept or reject has been rejected

Hypothesis 7 : Top_Management_score vs Adoption_score_cc

- Weak Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.26538664413137886 with a P-value of P = 0.09354773058565896

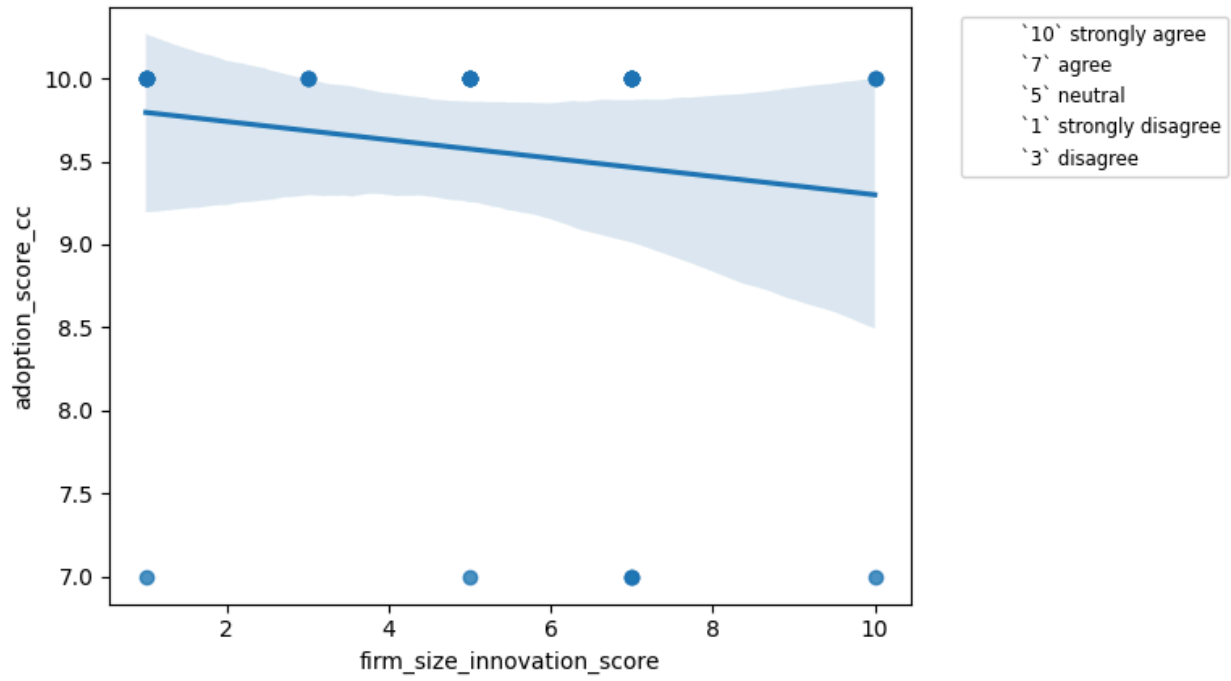


R-squared: 0.07043007088331521

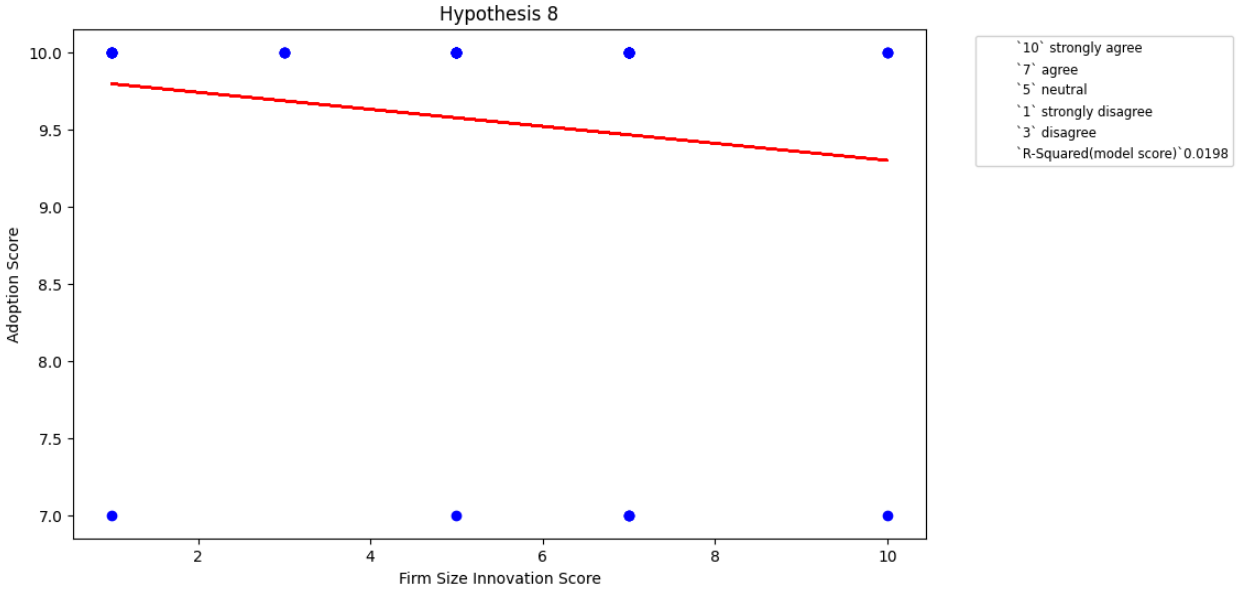
Alternate hypotheses to accept or reject have been accepted on the basis of weak relationships.

Hypothesis 8 : Firm_Size_innovation_score vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.14087590260576124 with a P-value of P = 0.379649272733821

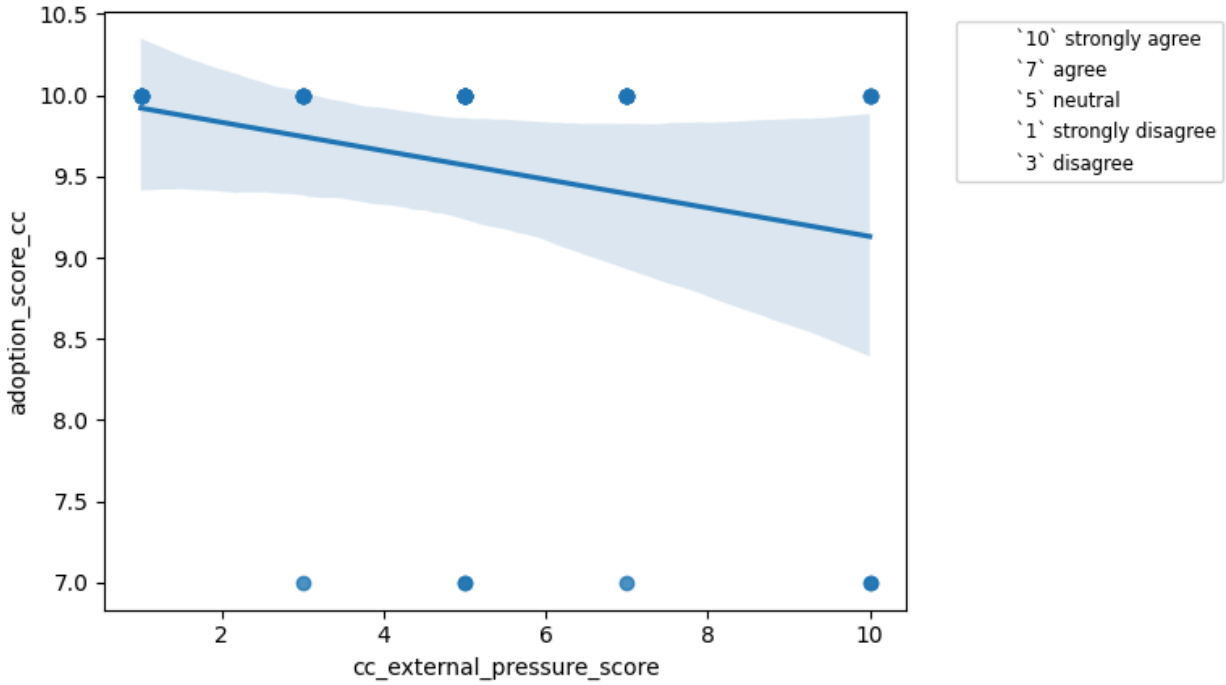


R-squared: 0.019846019934987802

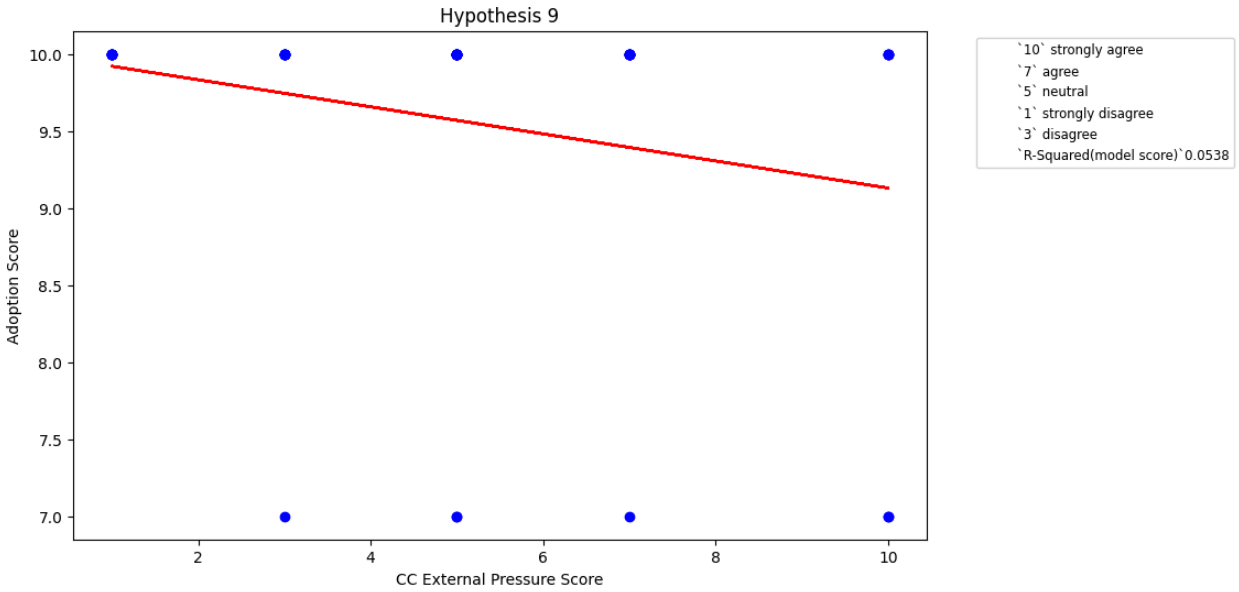
Alternate hypothesis to accept or reject has been rejected

Hypothesis 9 : External_pressure_score cc vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.23196428439721914 with a P-value of P = 0.1444680986480192

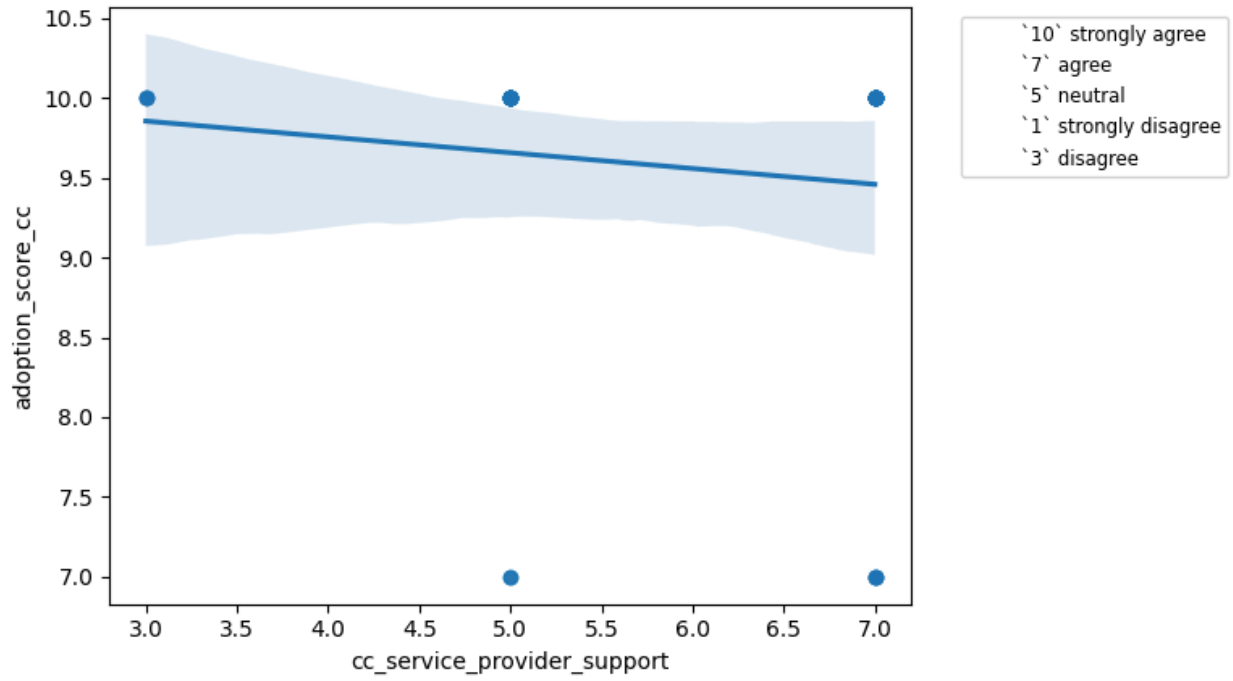


R-squared: 0.05380742923591375

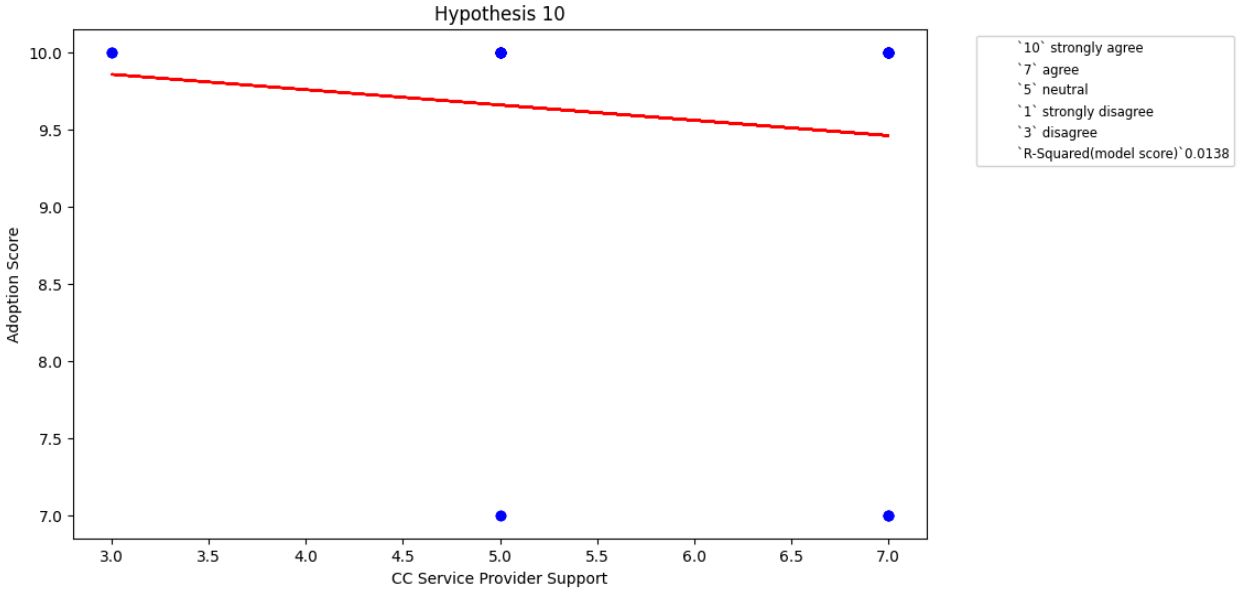
Alternate hypothesis to accept or reject has been rejected

Hypothesis 10: Service_provider_support cc vs Adoption_score_cc

- No Linear Correlation Evidence



The Pearson Correlation Coefficient is -0.11765378804957295 with a P-value of P = 0.46379974909311894



R-squared: 0.013842413842413803

Alternate hypothesis to accept or reject has been rejected

index	adoption_score_cc	firm_size_innovation_score	compatibility_score	cc_innovation_score	cc_useful_score	cc_security_efficiency	firm_technology_score	top_management_score	cc_external_pressure_score	cc_service_provider_support	
count	41	41	41	41	41	41	41	41	41	41	
mean	9.56	5.249	5.975	7.341	6.56	7.268	5.975	5.487	5.0975	5.97560	
std	1.07	2.7457	1.350	2.068	2.938	1.71	1.350	1.598	2.834	1.27	
min	7	1	3	3	1	3	3	2	1	3	
25%	10	3	5	7	5	7	5	5	3	5	
50%	10	5	7	7	7	7	7	5	5	7	
75%	10	7	7	10	10	7	7	5	7	7	
max	10	10	7	10	10	10	7	10	10	7	

Scale

- 7 Agreed and enthusiasim
- 10 Strongly Agreed prime need
- 5 Neutral neither primary priority nor any enthusiasim
- 1 Strongly Disagreed & not necessary
- 3 Disagreed and unwillingness

Adoption Score CC

- Scale 7- 10 people majority showed positive response about cloud computing adoption score

Firm Size Innovation CC

- Scale 5- 7 people majority partially agreed about firm size innovation score

Compatability Score

- Scale 6- 10 people response ranged from neutral to partially agreed about Cloud Computing brings compatability score.

Innovation_score Cloud Computing

- 10 : Majority of people upto 75% strongly agreed.
- Conclusion : Adopting Cloud Computing indeed helps a firm to stand higher in innovation score.

Useful Score Cloud Computing

- 10 : Majority of people upto 75% strongly agreed.
- Conclusion : Adopting Cloud Computing enables user usefulness and enhancing productivity.

Useful Security Efficiency Score

- 7 : Majority of people upto 75% just agreed Cloud Computing adoption helps in security efficiency.
- Conclusion : Adopting Cloud Computing is not the only parameter for any maximizing seucrity.

Firm Technology Score For Cloud Computing

- 7 : Majority of people upto 75% just agreed Firm Technological Adavancement is evident by adopting cloud computing.
- Conclusion : Adopting Cloud Computing is not a mandatory parameter for any firm technological advancement.

Top Management Score For CC Adoption Support

- 7 : Majority of people upto 75% just agreed Firm Technological Adavancement is evident by adopting cloud computing.
- Conclusion : Adopting Cloud Computing is not a number one priority for majority of firms top managment.

External Pressure

- 7 : Majority of people upto 75% just agreed one of the reason was External Pressure for adopting cloud computing.
- Conclusion : Adopting Cloud Computing is influenced by several factors and external pressure was one of them.

Service Provider Support

- 7 : Majority of people upto 75% just agreed that they were given some sort of training through their firms by cloud service providers.
- Conclusion : Adopting Cloud Computing is influenced by several factors and external pressure was one of them.