

Correlation Coefficient

Presented by A Closer Look

Correlation Coefficient; noun symbol: r

A number between -1 and +1 calculated to represent the linear dependence of two variables or sets of data.

What is a correlation coefficient?

A correlation coefficient is a statistical measure of the degree to which changes to the value of one variable predict change to the value of another. In positively correlated variables, the value increases or decreases in tandem. In negatively correlated variables, the value of one increase as the value of the other decreases.

Correlation coefficients are expressed as values between +1 and -1. A coefficient of +1 indicates a perfect positive correlation: a change in the value of one variable will predict a change in the same direction in the second variable. A coefficient of -1 indicates a perfect negative correlation: A change in the value of one variable predicts a change in the opposite direction in the second variable. Lesser degrees of correlation are expressed as non-zero decimals. A coefficient of zero indicates there is no discernable relationship between fluctuations of the variables.

Where did the data come from?

After an extensive review of 25,000 mystery shops conducted at 24 U.S.-based casual dining concepts that completed a minimum of 500 mystery shops since the beginning of 2013, A Closer Look concluded: "There is a significantly strong correlation between casual dining concept-wide mystery shopping scores and overall consumer likeliness of recommending to friends or colleagues."

Value of r	Strength of Relationship
-1.0 to -0.5 or 0.5 to 1.0	Strong
-0.5 to -0.3 or 0.3 to 0.5	Moderate
-0.3 to -0.1 or 0.1 to 0.3	Weak
-0.1 to 0.1	None or Very Weak

24,897 shops completed that received an ACL Score of 8.80 or above...

and

also received a shop score percentage of 87% or above ...

had a positive correlation coefficient of 0.7821232