

# [Understand a range of techniques to analyse data effectively for business purpose...](https://assignbuster.com/understand-a-range-of-techniques-to-analyse-data-effectively-for-business-purposes/)

[Business](https://assignbuster.com/essay-subjects/business/)

Techniques to analyse data effectively for business purposes Number Department 2 And 2. 2 Calculate themean, median, mode and standard deviation of the employees’ salaries.
Salaries (X)
X-U
(X-U)2
1200
-48
2304
1100
-148
21904
1120
-168
28224
2160
912
831744
1200
-48
2304
1580
332
110224
400
-848
719104
1100
-148
21904
1560
312
97344
1200
-48
2304
1140
-108
11664
700
-548
300304
1560
312
97344
1100
-148
21904
1600
352
123904
2000
752
565504
600
-648
419904
800
-448
200704
1100
-148
21904
1740
492
242064
24960/ 20= 1248 3842560/20= 192128
Mean is the average in a list of numbers. It is got by adding all numbers then dividing the result by the number of numbers (Oakshott, 2012). Mean = 24960/20= 1248 Median is the middle number in a list of numbers. To find median the numbers have to be arranged in numerical order.
400, 600, 700, 800, 1100, 1100, 1100, 1100, 1120, 1140, 1200, 1200, 1200, 1560, 1560, 1580, 1600, 1740, 2000, 2160
The median in this case is the mean of the two numbers appearing in the middle of a list in numerical order (1140+1200)/2= 1170
The mode is the number that has been repeated most in a list of numbers. The mode = 1100
Standard deviation=√ 192128= 438. 75
2. 3 Explain the relevance of the results that you calculated in above both for the business and for employees.
Mode is important when one wants to find out what happens regularly. Businesses can apply mode when analyzing which is the common salary scale. While there may be other salary scales, there are not many workers who will be paid average or mean salaries. Those values are thus not important when setting the salaries of employees in terms of what most will be paid (Oakshott, 2012). Mode can be applied by employees in knowing their salary scale.
Mean can be applied by businesses to know the average cost of the employees’ salaries and it can be used to estimate the future costs. Mean can be used by employees to calculate the expected salary. Employees get an average salary of £1248
The business can apply the median salary figure to get the average salary that the employees are paid with no consideration of the extreme values. The employees are paid an average salary of £1100.
Standard deviation is the measure of how numbers are spread out. In this case it shows how the salaries of employees are spread out. It shows how the salaries are different from the mean (Lind, Marchal & Wathen, 2010).
2. 4 Discuss how a business may use quartiles, percentiles and correlation coefficient to draw useful conclusions for a business.
A business may use quartile and percentile to make decisions. For instance, to set the prices of goods and services, they may also be applied in the setting of employees’ salaries. Correlation can also be applied in business decision making. Correlation is used to measure the linear relationship that is between two variables (Lind, Marchal & Wathen, 2010). If a relationship between the two variables is strong then altering one of the variables will affect the other variable. Thus a business is able to determine if it should change the variable and to what extent.
References
Lind, D. A., Marchal, W. G., & Wathen, S. A. (2010). Statistical techniques in business & economics. Boston, McGraw-Hill Irwin.
Oakshott, L. (2012). Essential quantitative methods for business, management and finance. Houndmills, Basingstoke, Hampshire, Palgrave Macmillan.