

Practical Task 1

1. Lowest - Costa Rica, Belgium, Denmark.
2. Highest - Chile, Japan, Korea.

Costa Rica

Factors that could contribute to female success:

1. Legislation against gender-based discrimination.
2. Greater percentage of women entering tertiary education.
3. 33% of parliamentary roles filled by women.
4. 100 days maternity leave with full pay.

Whether Costa Rica should be as low on the graph can be argued as the calculations for the median male and female paycheques do not consider region of residence or work, schooling or weekly hours. When these variables are matched up, the gender pay gap rises considerably. Costa Rica's wealth distribution probably caused the results as 44% of business have female partial or full ownership. So the wealth of those women brought up the median wage when actually the average woman in Costa Rica earns 27% less than their male counterparts.

2i – The sales are on a gentle decrease until March 2020 where there is a sharp increase in sales (more than doubling).

ii - COVID-19 broke out in America and purchases increased due to isopropanol being used in cleaners, disinfectants and hand sanitisers.

The general trend for the graph is that the higher the GDP, the higher the CO2 emissions.

Europe: It has the smallest cluster of bubbles with high GDP and high CO2 emissions, with no huge disparity between population sizes.

Oceania: Fits the general trend. Has less of a cluster and more of a linear pattern with a positive correlation between CO2 emissions and GDP, no outliers.

Americas: Has more of a spread but tends to have larger populations at high GDP and CO2 emissions. There are very few countries that veer far from the line of best fit, with a steady positive correlation between CO2 emissions and GDP.

Africa: Has an even larger spread across the graph with far more countries appearing further from the line of best fit. These countries tend to have a lower GDP but higher emissions: however, Africa does have the most countries with a comparatively low CO2 emissions to GDP.

Asia: Appears to have the largest spread across the graph, matching the general positive correlation between GDP and CO2 emissions. However, countries with larger populations

seem to have greater emissions without a significant increase in GDP, whereas smaller populations in Asia can have similar emissions but a higher GDP to emission ratio.

Practical Task 2

1. Crime rate (y) by house price (x). In general the crime rate stays very low to the x-axis apart from a couple of outliers where the property value is lower.
2. Approximately 7.
3. There is a positive correlation between rooms per dwelling and average house price. The more rooms a property has, the higher it is valued at.
4. A considerable number of neighbourhoods have a large percentage of houses that were built before 1940.
5. Where there is a large proportion of older properties, the properties have a lower value, probably due to the properties needing repairs due to their age.