



# Cyber Crime dataset questions

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# Dashboard generated

# CYBERSECURITY DASHBOARD

Average CEI value

0.27

Average DDL value

40.94

Average GCI value

52.22

Average NCSI value

37.67

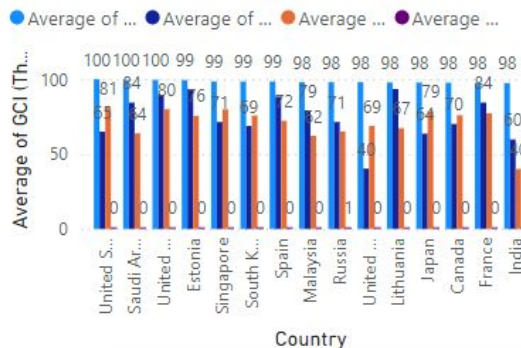
Region

- ☐ Africa
- ☐ Asia-Pasific
- ☐ Europe
- ☐ North America
- ☐ South America

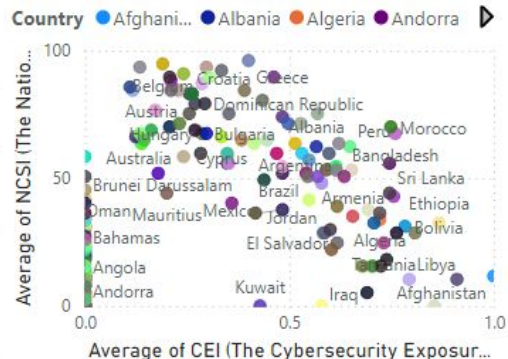
Country

- ☐ Afghanistan
- ☐ Albania
- ☐ Algeria
- ☐ Andorra
- ☐ Angola
- ☐ Antigua and Bar...
- ☐ Argentina
- ☐ Armenia
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahamas
- ☐ Bahrain

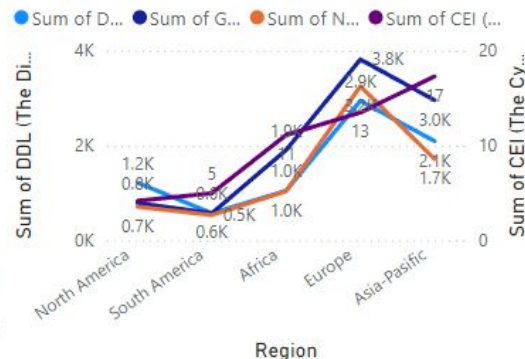
Distribution of GCI, NCSI and DDL over countries



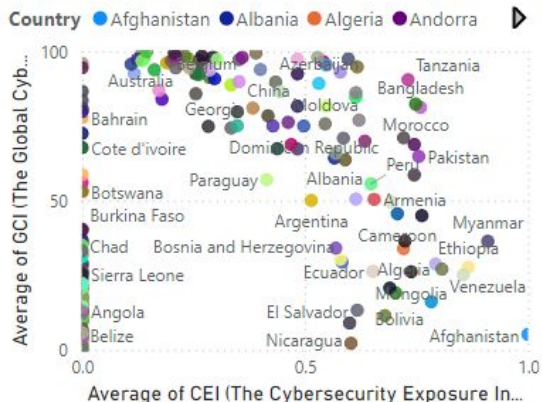
Relation between CEI and NCSI over Countries



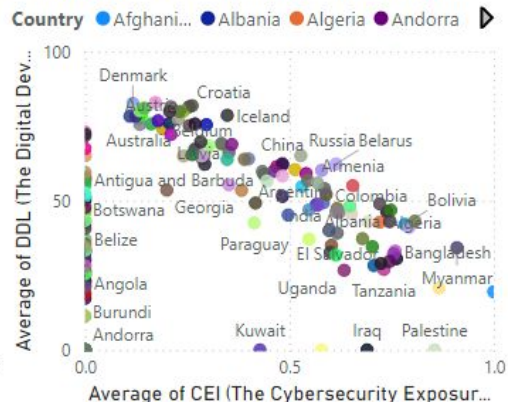
Trends of DDL, GCI, NCSI, CEI by Region



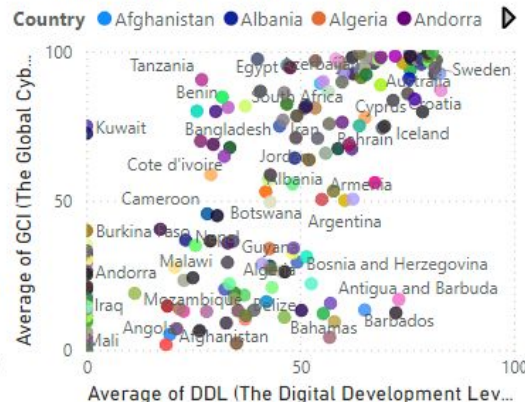
Relation between CEI and GCI by Country



Relation between CEI and DDL by Country



Relation between DDL and GCI by Region

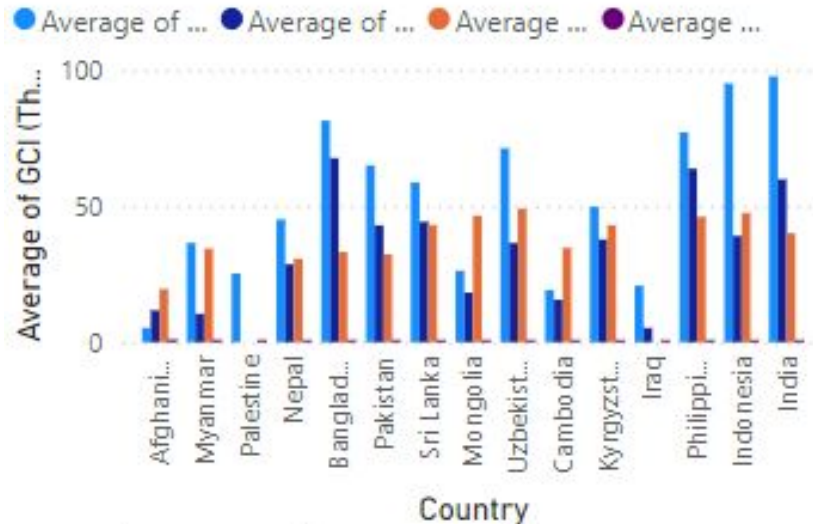




# Questions about the Dataset

Question 1. Which country in the Asia-Pacific region has the highest CEI score, and how does its GCI and NCSI compare to other countries in the same region?

Distribution of GCI, NCSI and DDL over countries

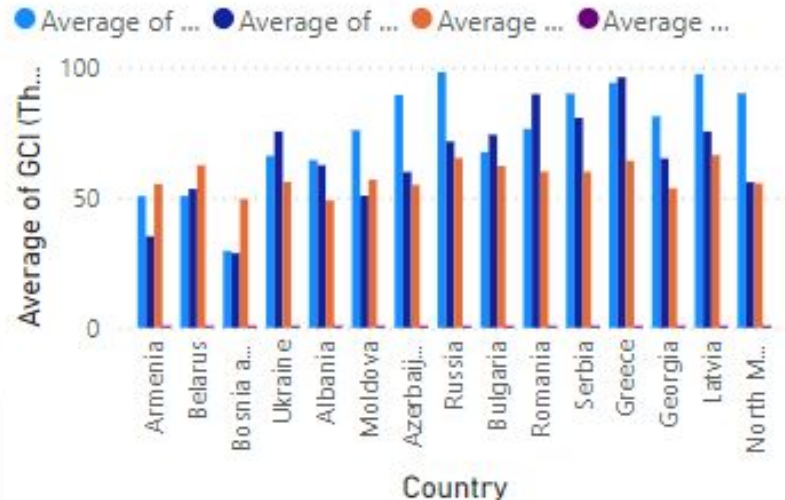


- Afghanistan has the highest CEI value in the Asia-Pacific region compared to other countries
- It has less GCI and NCSI value as compared to other countries

## Question 2. How does Albania's cybersecurity metrics (CEI, GCI, NCSI) compare to other European countries?

Average CEI value	Average DDL value	Average GCI value	Average NCSI value
0.57	48.74	64.32	62.34

Distribution of GCI, NCSI and DDL over countries

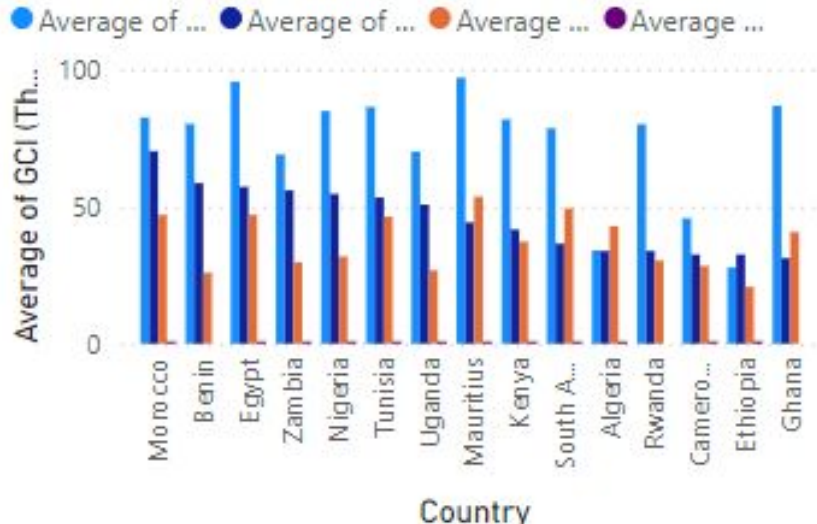


- Albania has CEI of 0.57, DDL of 48.74, GCI of 64.32 and CSI of 62.34
- It has moderate to good cybersecurity measures as compared to other countries in the European region

### Question 3. Which country in Africa has the highest NCSI and how does its DDL relate to its other cybersecurity indicators?

Average CEI value	Average DDL value	Average GCI value	Average NCSI value
0.75	46.88	82.41	70.13

Distribution of GCI, NCSI and DDL over countries

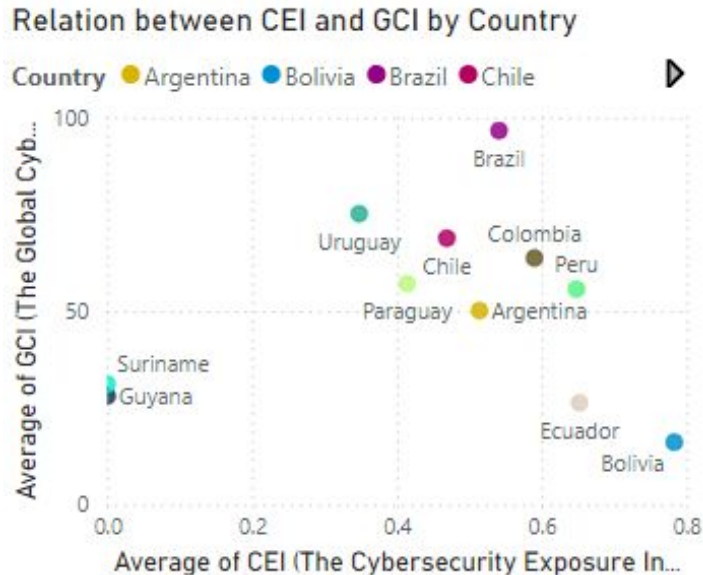


- Morocco has the highest NCSI value of 70.13 in the Africa region
- Morocco has a high DDL value of 46.88 as compared to the average of 19.71 of the Africa region

## Question 4. What is the relationship between CEI and GCI for countries in South America?

Average CEI value	Average DDL value	Average GCI value	Average NCSI value
0.45	51.80	51.72	48.29

- Countries in South America have an average CEI of 0.45 and average GCI of 48.29
- Countries like Uruguay, Chile, Colombia, Peru, Paraguay have a good value of CEI against the GCI value



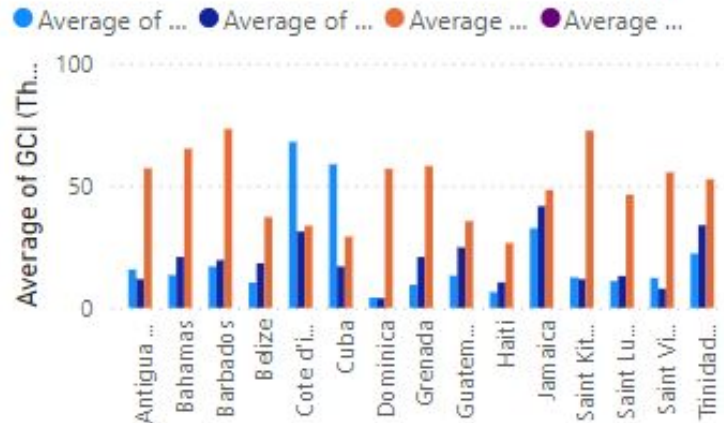


## Question 5. Which countries in North America have the lowest Cybersecurity Exposure Index (CEI), and how does it relate to their GCI and NCSI?



Average CEI value	Average DDL value	Average GCI value	Average NCSI value
0.00	57.10	15.62	11.69

Distribution of GCI, NCSI and DDL over countries



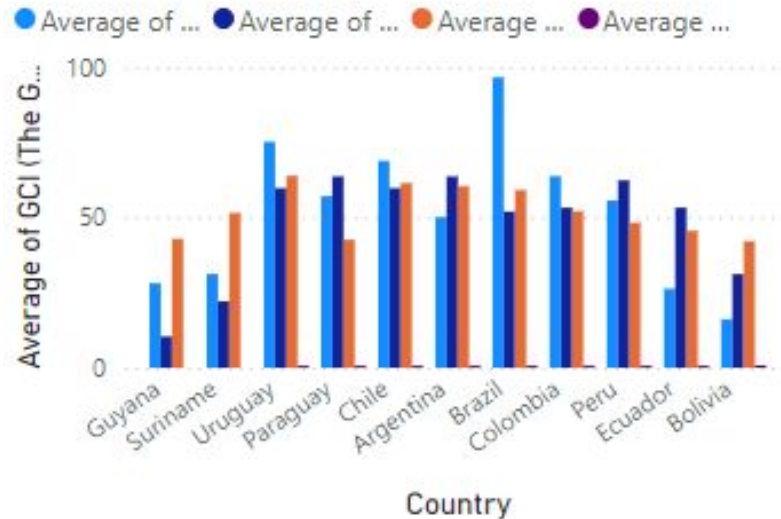
- Antigua and Barbuda has the lowest CEI value with 0.0, GCI of 15.62 and NCSI of 11.69
- The average values in North America with GCI of 32.78 and NCSI of 29.44
- It has high DDL value as compared to other countries

## Question 6. How does Argentina's NCSI score compare with other South American countries, and what trends can be observed?



Average CEI value	Average DDL value	Average GCI value	Average NCSI value
0.51	60.43	50.12	63.64

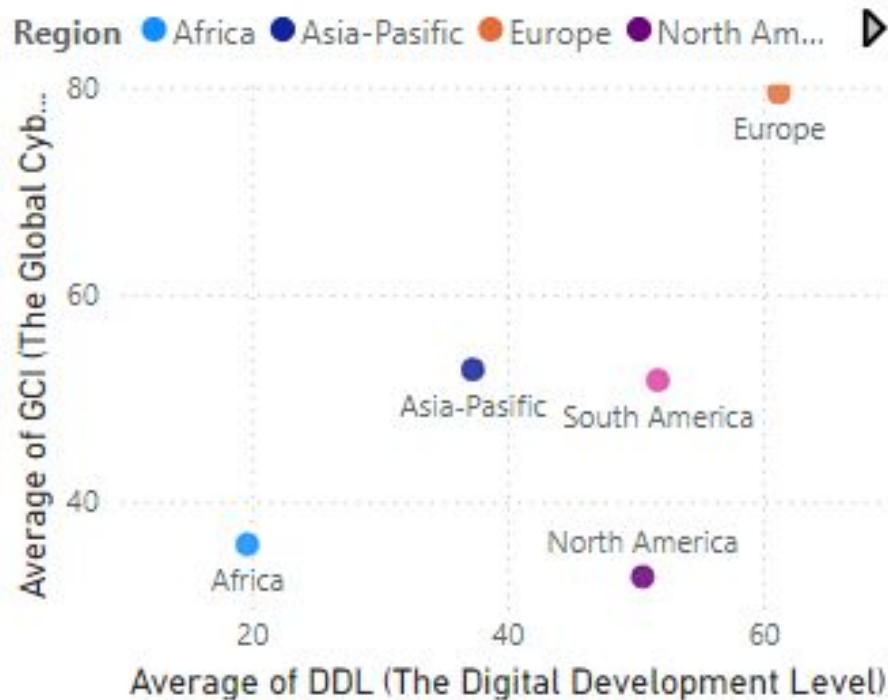
Distribution of GCI, NCSI and DDL over countries



- Argentina has a NCSI score of 63.44 compared to average of 48.29 against countries in South America
- Argentina NCSI score is higher than the average NCSI score of the other countries in South America

Question 7. What is the correlation between Digital Development Level (DDL) and Global Cybersecurity Index (GCI) across different regions?

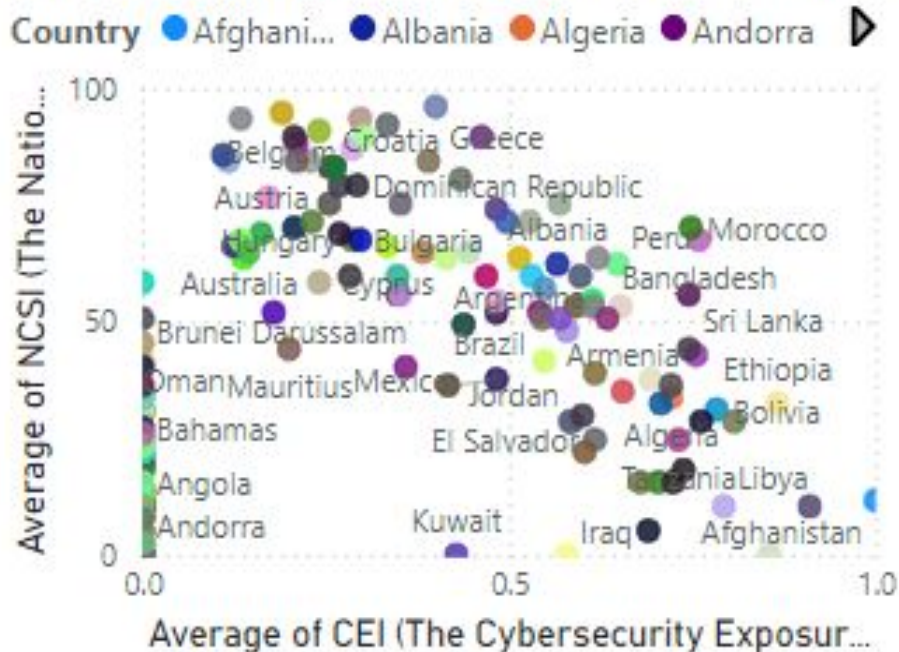
### Relation between DDL and GCI by Country



- Countries in European region have high GCI and DDL values compared to countries in African region with low GCI and DDL values
- Countries in Asia-Pacific, South America and North America fall in the median range of values

Question 8. Which countries exhibit a high CEI but low NCSI, and what does that imply about their cybersecurity status?

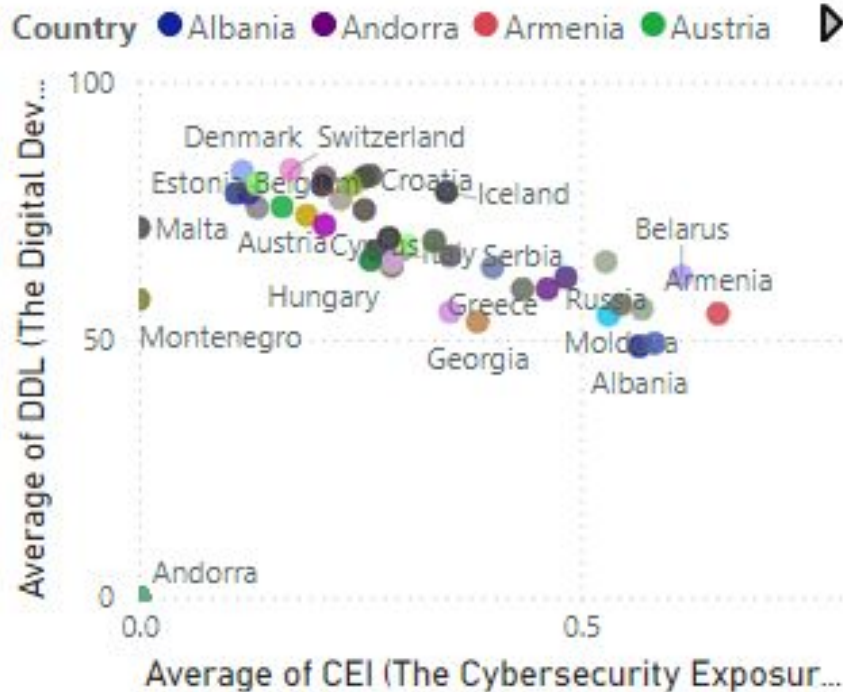
### Relation between CEI and NCSI over Countries



- Countries like Libya, Afghanistan and Tanzania have high CEI values as compared to their NCSI values
- A higher CEI (Cybersecurity Exposure Index) combined with lower NCSI (National Cyber Security Index) suggests a concerning mismatch between a country's cybersecurity exposure and its cyber defense capabilities

Question 9. How do countries in Europe compare in terms of CEI vs. DDL levels? Are there any clear patterns or anomalies?

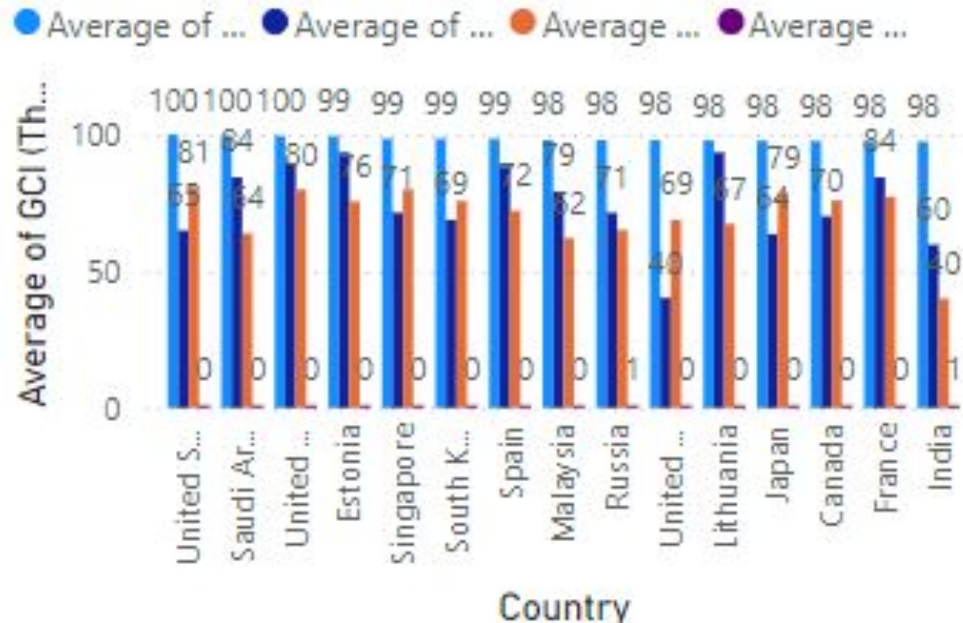
### Relation between CEI and DDL by Country



- Countries in Europe have higher CEI value against moderate to high DDL values
- There is a clear pattern with a few countries like Andorra, Montenegro expressing anomalies

Question 10. What are the top 5 countries with the highest GCI scores globally, and what are their CEI and NCSI values?

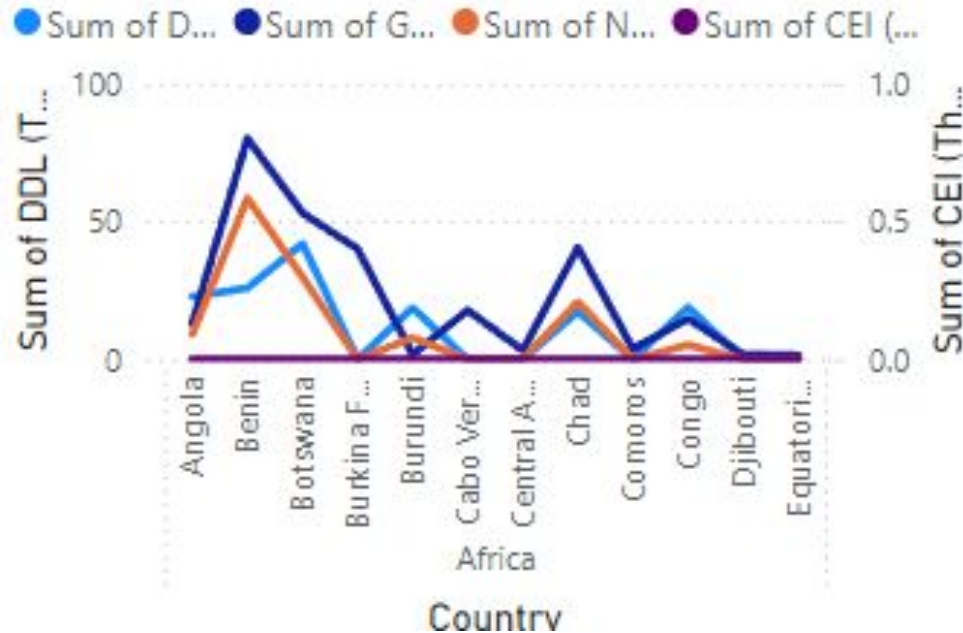
Distribution of GCI, NCSI and DDL over countries



- Top 5 countries with high GCI values are USA, Saudi Arabia, UK, Estonia and Singapore
- Their CEI and NCSI values can be derived from the chart

Question 11. What is the regional distribution of countries with a CEI of 0, and what could explain the cybersecurity status in those regions?

### Trends of DDL, GCI, NCSI, CEI by Region



- The chart represents the relation between countries with 0 CEI value and other factors
- It shows a high rate of imbalance in the values of DDL, GCI and NCSI against the CEI values



## Question 12. How does Canada's GCI compare with other North American countries, and what factors contribute to its ranking?

Average CEI value

0.21

Average DDL value

75.96

Average GCI value

97.67

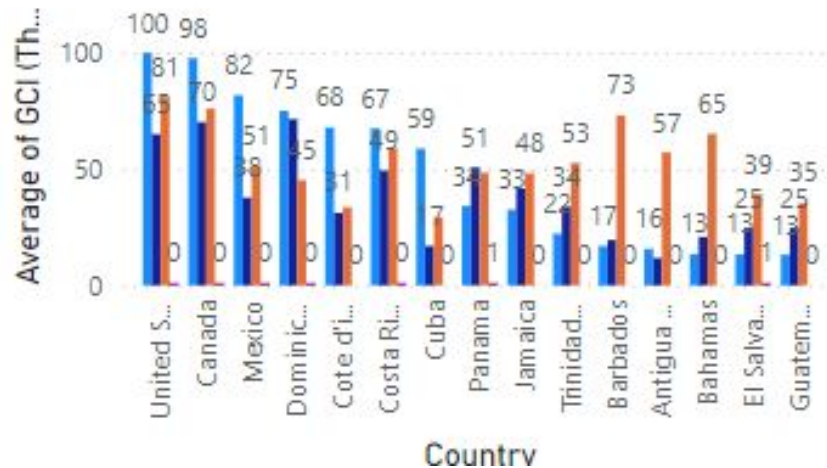
Average NCSI value

70.13

- Canada has a CEI value of 0.21, DDL value of 75.96, GCI value of 97.67 and NCSI value of 70.13
- It has higher GCI, DDL and NCSI values contributing to its higher ranking

### Distribution of GCI, NCSI and DDL over countries

● Average of ... ● Average of ... ● Average ... ● Average ...





### Question 13. What can be inferred about the cybersecurity state of Australia based on its CEI, GCI, NCSI, and DDL?

Average CEI value

**0.13**

Average DDL value

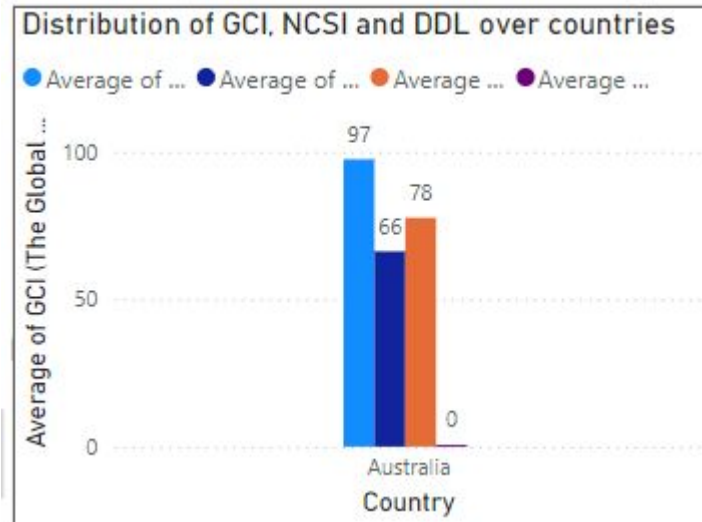
**77.61**

Average GCI value

**97.47**

Average NCSI value

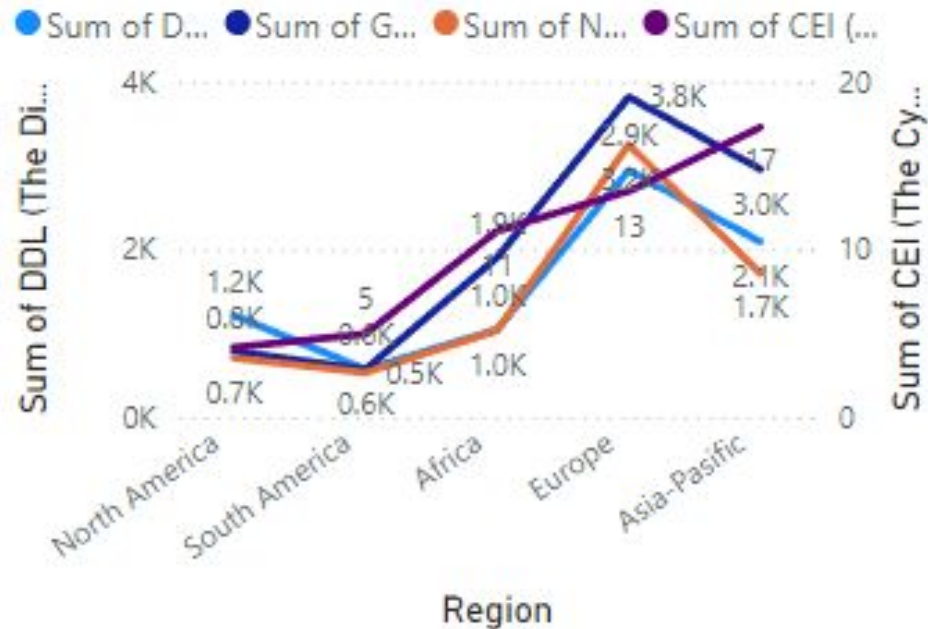
**66.23**



- Australia has a high CEI value of 0.13, DDL value of 77.61, GCI value of 97.47 and NCSI value of 66.23
- Its high GCI, DDL and NCSI values contribute to high cybersecurity measures

## Question 14. What patterns emerge when comparing CEI scores across different regions (Africa, Europe, Asia-Pacific, etc.)?

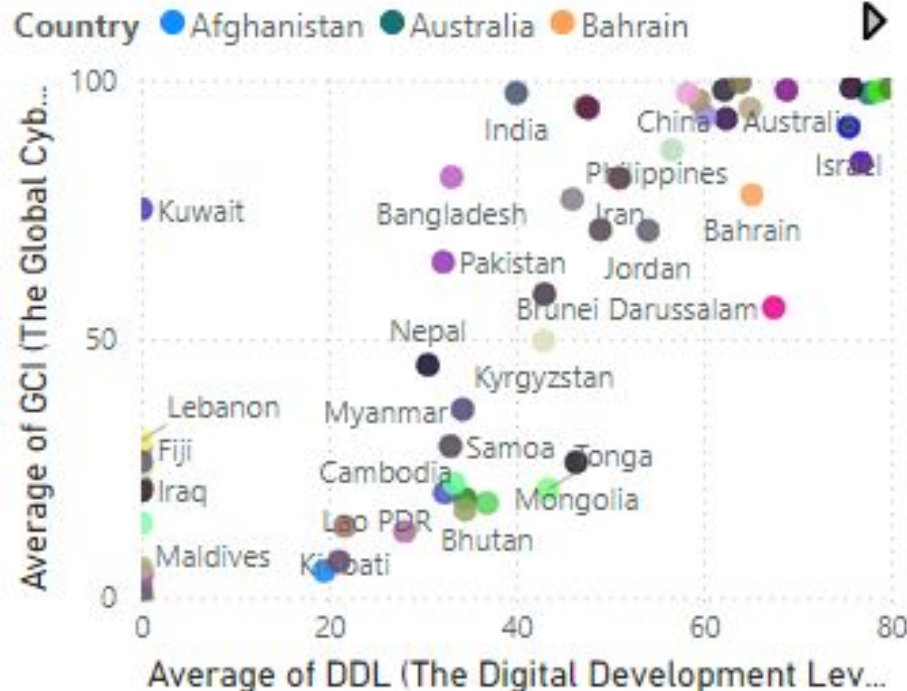
### Trends of DDL, GCI, NCSI, CEI by Region



- CEI scores of North America is lowest with 0.17 against the Asia-Pacific region of 0.31
- The chart shows the representation of metrics against the regions

## Question 14. How does the Digital Development Level (DDL) impact the GCI scores within the Asia-Pacific region?

### Relation between DDL and GCI by Region



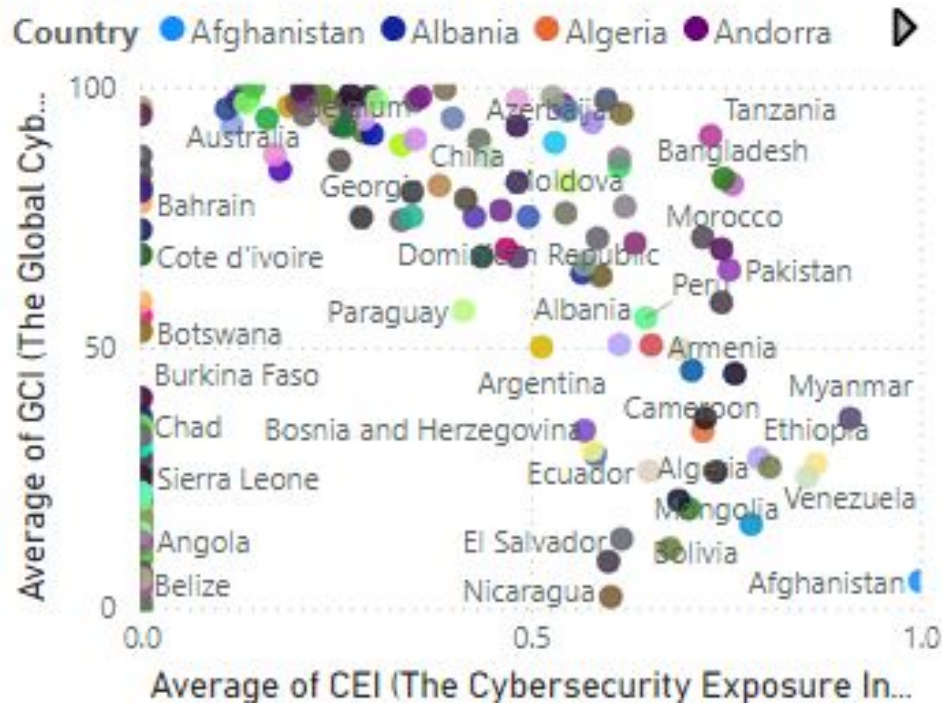
- DDL value in Asia-Pacific region stands at 37.33 with GCI value of 52.76
- Countries like Australia, China, Israel have high values of DDL and GCI



# **Analysis Questions**

## Question 1. Correlation Analysis: Is there a strong correlation between Digital Development Level (DDL) and Global Cybersecurity Index (GCI) across all countries?

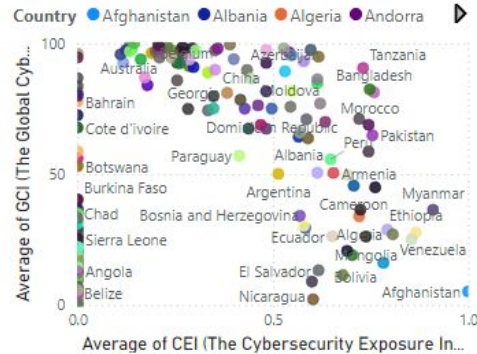
Relation between CEI and GCI by Country



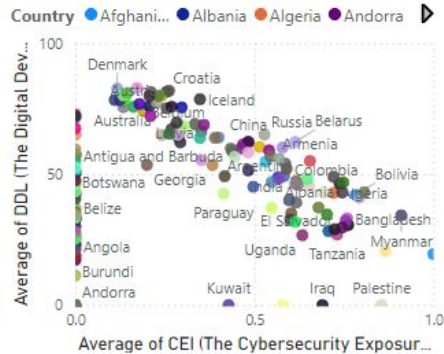
- There is a strong correlation between DDL and GCI except a few outliers

## Question 2. Cluster Analysis: Can countries be clustered into groups based on their CEI, NCSI, and GCI scores?

Relation between CEI and GCI by Country



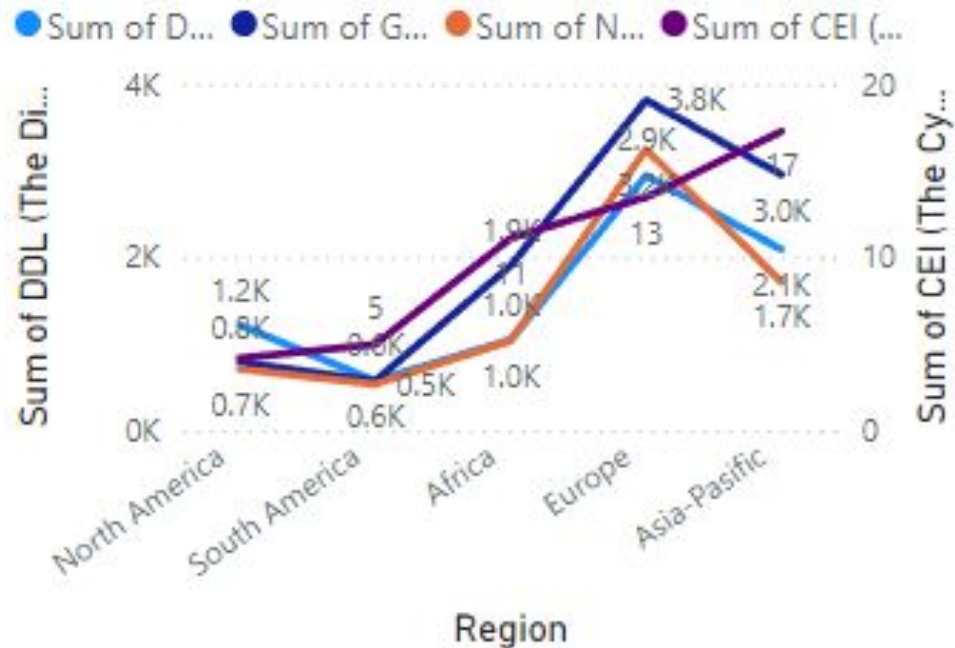
Relation between CEI and DDL by Country



- Countries can be clustered together based on their relations
- As the values of CEI and GCI increase, so does the relation
- Similarly it works with CEI and DDL

### Question 3. Regional Comparisons: Which region performs best overall in terms of NCSI scores, and what regional trends can be observed?

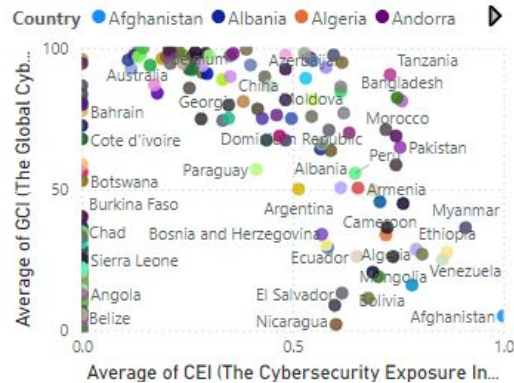
#### Trends of DDL, GCI, NCSI, CEI by Region



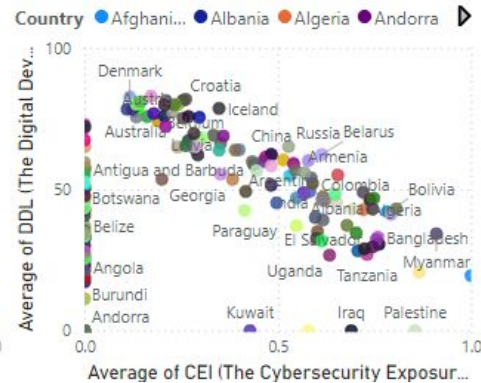
- Europe region performs best in terms of NCSI scores
- It has high NCSI, CEI, DDL and GCI scores as compared to other countries

## Question 4. Outlier Analysis: Identify countries with extremely high CEI but low GCI or NCSI and investigate the reasons behind these outliers.

Relation between CEI and GCI by Country



Relation between CEI and DDL by Country



- Countries like Afghanistan, Myanmar have high CEI but low GCI
- Similarly, countries like Palestine, Myanmar, Bangladesh have high CEI as compared to low DDL
- Reasons could be poor infrastructure in cyber security and the presence of unstable politics



Question 4. Trend Analysis: Explore how Digital Development Level (DDL) trends with Cybersecurity Exposure Index (CEI) across different regions.

### Trends of DDL, GCI, NCSI, CEI by Region

● Sum of D... ● Sum of G... ● Sum of N... ● Sum of CEI (...)



- DDL is high compared to CEI in Europe
- In North America, both the values are low