Project

Youtuber Streamer Analysis EDA

In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

import warnings
warnings.filterwarnings("ignore")
```

In [2]:
```
data = pd.read_csv('youtubers_df.csv')
```

In [3]:
```
data.shape
```

Out[3]:
```
(1000, 9)
```

In [4]:
```
data.head()
```

Out[4]:

	Rank	Username	Categories	Suscribers	Country	Visits	Likes	Comments	
0	1	tseries	Música y baile	249500000.0	India	86200.0	2700.0	78.0	http://youtube.com/channel/UCq-Fj5jknLsUf-M
1	2	MrBeast	Videojuegos, Humor	183500000.0	Estados Unidos	117400000.0	5300000.0	18500.0	http://youtube.com/channel/UCX6OQ3DkcsbYNE
2	3	CoComelon	Educación	165500000.0	Unknown	7000000.0	24700.0	0.0	http://youtube.com/channel/UCbCmjCuTUZos6
3	4	SETIndia	NaN	162600000.0	India	15600.0	166.0	9.0	http://youtube.com/channel/UCpEhnqL0y41EpW
4	5	KidsDianaShow	Animación, Juguetes	113500000.0	Unknown	3900000.0	12400.0	0.0	http://youtube.com/channel/UCk8GzjMOrta8y

In [5]:
```
data.tail()
```

Out[5]:

	Rank	Username	Categories	Suscribers	Country	Visits	Likes	Comments	
995	996	hamzymukbang	NaN	11700000.0	Estados Unidos	397400.0	14000.0	124.0	http://youtube.com/channel/UCPKNKldggioffXPI
996	997	Adaahqueen	NaN	11700000.0	India	1100000.0	92500.0	164.0	http://youtube.com/channel/UCk3fFpqI5kDMf__r
997	998	LittleAngelIndonesia	Música y baile	11700000.0	Unknown	211400.0	745.0	0.0	http://youtube.com/channel/UCdrHrQf0o0TO8YD
998	999	PenMultiplex	NaN	11700000.0	India	14000.0	81.0	1.0	http://youtube.com/channel/UCObyBrdrtQ20BU9
999	1000	OneindiaHindi	Noticias y Política	11700000.0	India	2200.0	31.0	1.0	http://youtube.com/channel/UCOjgc1p2hJ4GZi6p

In [6]:
```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1000 entries, 0 to 999
Data columns (total 9 columns):
 #   Column      Non-Null Count  Dtype  
---  ------      --------------  -----  
 0   Rank        1000 non-null   int64  
 1   Username    1000 non-null   object 
 2   Categories  694 non-null    object 
 3   Suscribers  1000 non-null   float64
 4   Country     1000 non-null   object 
 5   Visits      1000 non-null   float64
 6   Likes       1000 non-null   float64
 7   Comments    1000 non-null   float64
 8   Links       1000 non-null   object 
dtypes: float64(4), int64(1), object(4)
memory usage: 70.4+ KB
```

In [7]:
```
data.columns
```

Out[7]:
```
Index(['Rank', 'Username', 'Categories', 'Suscribers', 'Country', 'Visits',
       'Likes', 'Comments', 'Links'],
      dtype='object')
```

Change the column name

In [8]:
```
data.rename(columns={'Suscribers':'Subscribers'},inplace=True)
```

In [9]:
```
data.columns
```

Out[9]:
```
Index(['Rank', 'Username', 'Categories', 'Subscribers', 'Country', 'Visits',
       'Likes', 'Comments', 'Links'],
      dtype='object')
```

Dealing missing values

In [10]:
```
data.isnull().sum()
```

Out[10]:
```
Rank            0
Username        0
Categories    306
Subscribers     0
Country         0
Visits          0
Likes           0
Comments        0
Links           0
dtype: int64
```

Fill Missing values

In [11]:
```
data['Categories'].fillna('Unknown', inplace = True)
```

To Check

In [12]:
```
data.isnull().sum()
```

Out[12]:
```
Rank          0
Username      0
Categories    0
Subscribers   0
Country       0
Visits        0
Likes         0
Comments      0
Links         0
dtype: int64
```

In [13]:
```
data.describe()
```

Out[13]:

	Rank	Subscribers	Visits	Likes	Comments
count	1000.000000	1.000000e+03	1.000000e+03	1.000000e+03	1000.000000
mean	500.500000	2.189440e+07	1.209446e+06	5.363259e+04	1288.768000
std	288.819436	1.682775e+07	5.229942e+06	2.580457e+05	6778.188308
min	1.000000	1.170000e+07	0.000000e+00	0.000000e+00	0.000000
25%	250.750000	1.380000e+07	3.197500e+04	4.717500e+02	2.000000
50%	500.500000	1.675000e+07	1.744500e+05	3.500000e+03	67.000000
75%	750.250000	2.370000e+07	8.654750e+05	2.865000e+04	472.000000
max	1000.000000	2.495000e+08	1.174000e+08	5.300000e+06	154000.000000

In [14]:
```
data[['Subscribers','Likes', 'Comments']].describe()
```

Out[14]:

	Subscribers	Likes	Comments
count	1.000000e+03	1.000000e+03	1000.000000
mean	2.189440e+07	5.363259e+04	1288.768000
std	1.682775e+07	2.580457e+05	6778.188308
min	1.170000e+07	0.000000e+00	0.000000
25%	1.380000e+07	4.717500e+02	2.000000
50%	1.675000e+07	3.500000e+03	67.000000
75%	2.370000e+07	2.865000e+04	472.000000
max	2.495000e+08	5.300000e+06	154000.000000

In [15]:
```
top_creators_subscribers = data.sort_values(by='Subscribers',
                           ascending=False).head(10)
print("Top Content Creators by Subscribers:\n",
      top_creators_subscribers[['Username', 'Subscribers']])
```

```
Top Content Creators by Subscribers:
              Username  Subscribers
0              tseries  249500000.0
1              MrBeast  183500000.0
2            CoComelon  165500000.0
3             SETIndia  162600000.0
4        KidsDianaShow  113500000.0
5            PewDiePie  111500000.0
6   LikeNastyaofficial  107500000.0
7          VladandNiki  101400000.0
8      zeemusiccompany   99700000.0
9                  WWE   97200000.0
```

Trending Analysis

In [16]:
```
category_counts = data['Categories'].value_counts()
plt.figure(figsize=(12, 8))
```

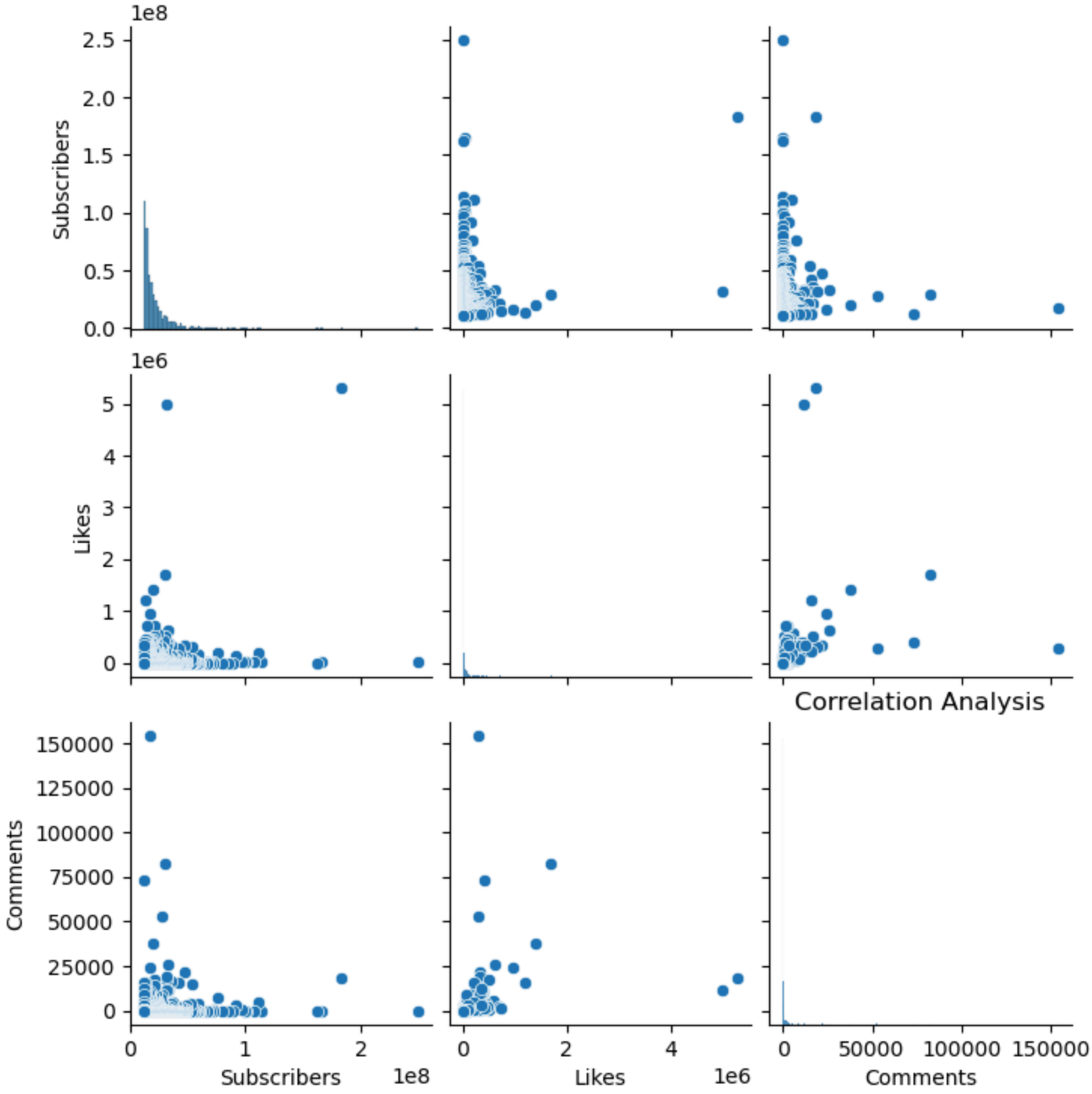
Out[16]:
```
<Figure size 1200x800 with 0 Axes>
```

<Figure size 1200x800 with 0 Axes>

Using Matplotlib library ,Correlation Analysis

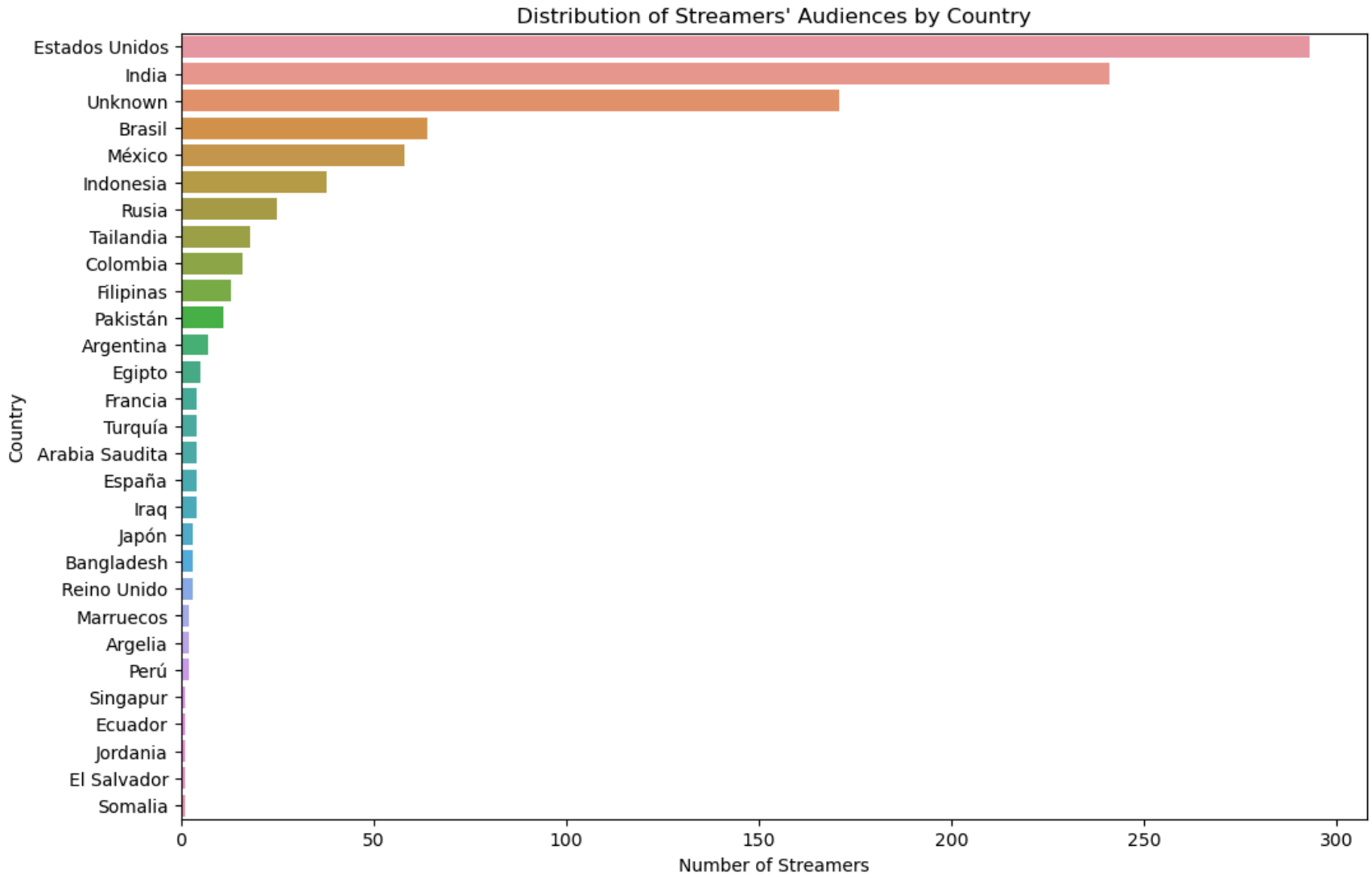
In [17]:
```
plt.figure(figsize=(12, 8))
sns.pairplot(data[['Subscribers', 'Likes', 'Comments']])
plt.title('Correlation Analysis')
plt.show()
```

<Figure size 1200x800 with 0 Axes>


1e8
Subscribers
1e6
Likes
Comments
Correlation Analysis
Subscribers
Likes
Comments

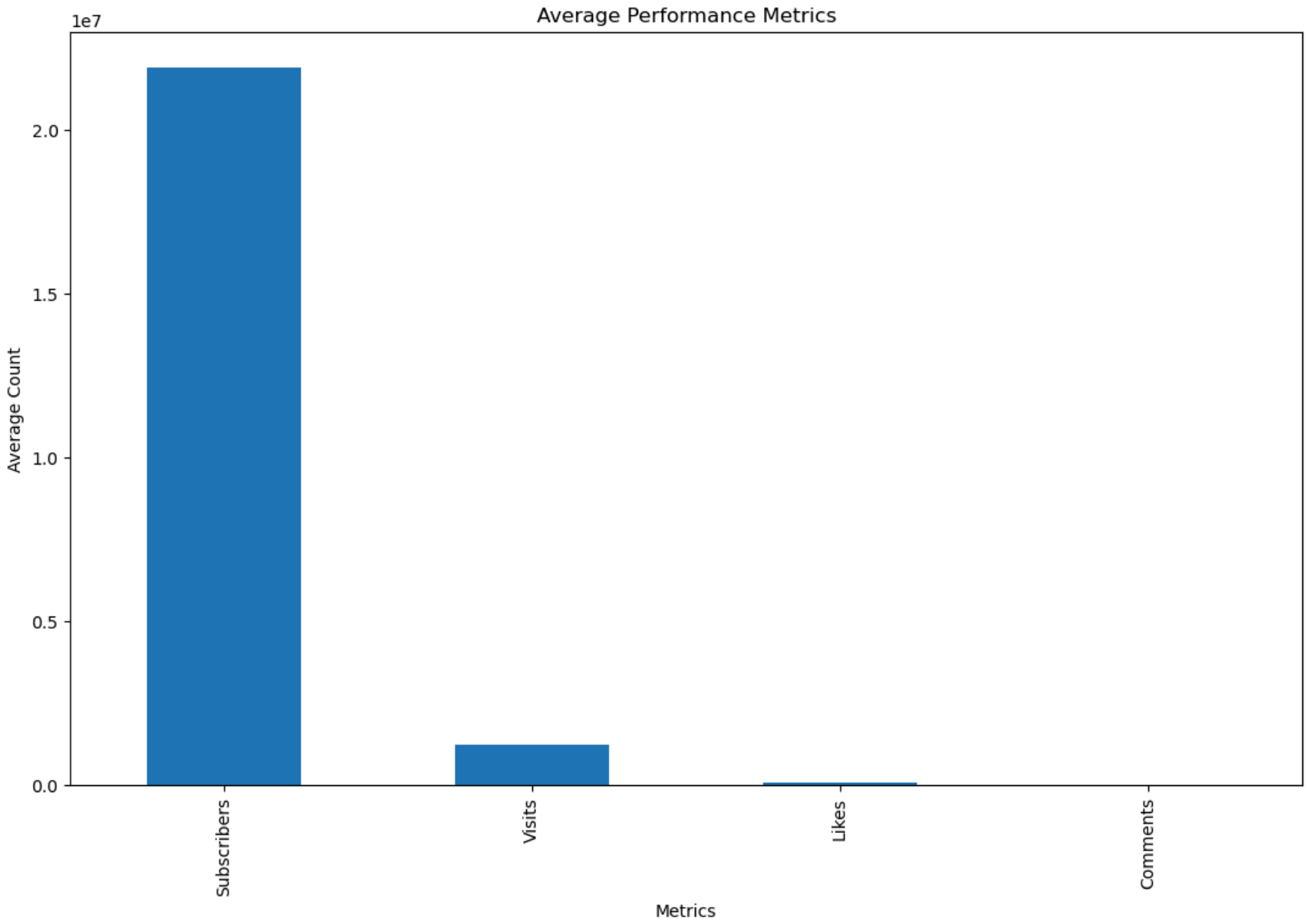
Analysis of audience

In [18]:
```
plt.figure(figsize=(12, 8))
sns.countplot(y='Country', data=data,
              order=data['Country'].value_counts().index)
plt.title('Distribution of Streamers\' Audiences by Country')
plt.xlabel('Number of Streamers')
plt.ylabel('Country')
plt.show()
```



Matrics Performance

In [19]:
```
average_metrics = data[['Subscribers', 'Visits', 'Likes', 'Comments']].mean()
plt.figure(figsize=(13, 8))
average_metrics.plot(kind='bar')
plt.title('Average Performance Metrics')
plt.xlabel('Metrics')
plt.ylabel('Average Count')
plt.show()
```



To check which content category

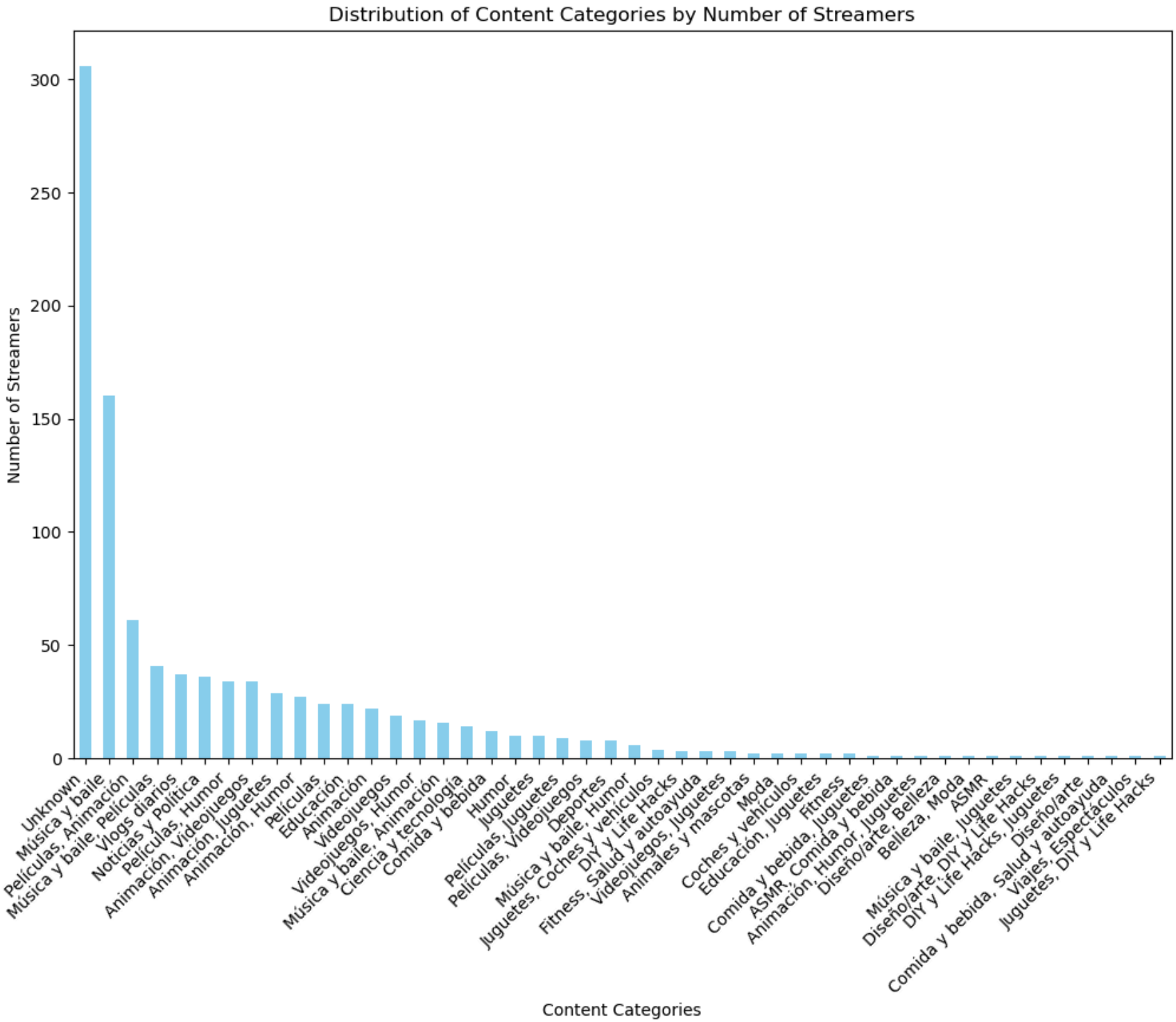
In [20]:
```
category_distribution = data['Categories'].value_counts()
print(category_distribution)
```

Categories	
Unknown	306
Música y baile	160
Películas, Animación	61
Música y baile, Películas	41
Vlogs diarios	37
Noticias y Política	36
Películas, Humor	34
Animación, Videojuegos	34
Animación, Juguetes	29
Animación, Humor	27
Películas	24
Educación	24
Animación	22
Videojuegos	19
Videojuegos, Humor	17
Música y baile, Animación	16
Ciencia y tecnología	14
Comida y bebida	12
Humor	10
Juguetes	10
Películas, Juguetes	9
Películas, Videojuegos	8
Deportes	8
Música y baile, Humor	6
Juguetes, Coches y vehículos	4
DIY y Life Hacks	3
Fitness, Salud y autoayuda	3
Videojuegos, Juguetes	3
Animales y mascotas	2
Moda	2
Coches y vehículos	2
Educación, Juguetes	2
Fitness	2
Comida y bebida, Juguetes	1
ASMR, Comida y bebida	1
Animación, Humor, Juguetes	1
Diseño/arte, Belleza	1
Belleza, Moda	1
ASMR	1
Música y baile, Juguetes	1
Diseño/arte, DIY y Life Hacks	1
DIY y Life Hacks, Juguetes	1
Diseño/arte	1
Comida y bebida, Salud y autoayuda	1

```
Viajes, Espectáculos                1
Juguetes, DIY y Life Hacks          1
Name: count, dtype: int64
```

In [21]:

```
plt.figure(figsize=(12, 8))
category_distribution.plot(kind='bar', color='skyblue')
plt.title('Distribution of Content Categories by Number of Streamers')
plt.xlabel('Content Categories')
plt.ylabel('Number of Streamers')
plt.xticks(rotation=45, ha='right')
plt.show()
```


Distribution of Content Categories by Number of Streamers
Number of Streamers
0
50
100
150
200
250
300
Unknown
Música y baile
Películas, Animación
Música y baile, Películas
Vlogs diarios
Noticias y Política
Películas, Humor
Animación, Videojuegos
Animación, Juguetes
Animación, Humor
Películas
Educación
Animación
Videojuegos
Videojuegos, Humor
Música y baile, Animación
Ciencia y tecnología
Comida y bebida
Humor
Juguetes
Películas, Juguetes
Películas, Videojuegos
Deportes
Música y baile, Humor
Juguetes, Coches y vehículos
DIY y Life Hacks
Fitness, Salud y autoayuda
Videojuegos, Juguetes
Animales y mascotas
Moda
Coches y vehículos
Educación, Juguetes
Fitness
Comida y bebida, Juguetes
ASMR, Comida y bebida
Animación, Humor, Juguetes
Diseño/arte, Belleza, Moda
Belleza, Moda
ASMR
Música y baile, Juguetes
Diseño/arte, DIY y Life Hacks
DIY y Life Hacks, Juguetes
Comida y bebida, Salud y autoayuda
Diseño/arte
Viajes, Espectáculos
Juguetes, DIY y Life Hacks
Content Categories

Comparison,Standardization

In [22]:
```
top_performers = data[(data['Subscribers'] > data['Subscribers'].mean()) &
                      (data['Visits'] > data['Visits'].mean()) &
                      (data['Likes'] > data['Likes'].mean()) &
                      (data['Comments'] > data['Comments'].mean())]
print("Top-performing Content Creators:\n", top_performers[
    ['Username', 'Subscribers', 'Visits', 'Likes', 'Comments']])
```

```
Top-performing Content Creators:
                  Username  Subscribers       Visits      Likes  Comments
1                  MrBeast  183500000.0  117400000.0  5300000.0   18500.0
5                PewDiePie  111500000.0    2400000.0   197300.0    4900.0
26             dudeperfect   59700000.0    5300000.0   156500.0    4200.0
34             TaylorSwift   54100000.0    4300000.0   300400.0   15000.0
39             JuegaGerman   48600000.0    2000000.0   117100.0    3000.0
43                A4a4a4a4   47300000.0    9700000.0   330400.0   22000.0
58               Mikecrack   43400000.0    2200000.0   183400.0    1800.0
62          KimberlyLoaiza   42100000.0    5300000.0   271300.0   16000.0
64         luisitocomunica   41100000.0    2500000.0   128900.0    1800.0
70             JessNoLimit   39600000.0    1300000.0    73500.0    1600.0
96          TotalGaming093   36300000.0    1500000.0   129400.0    4900.0
98    TechnoGamerzOfficial   35600000.0    6200000.0   341800.0   16500.0
100             markiplier   35500000.0    2100000.0   126500.0    3800.0
122                AboFlah   32700000.0    3300000.0   382000.0   11400.0
123         MRINDIANHACKER   32600000.0    6500000.0   617400.0   26000.0
131           fedevigevani   32000000.0    7700000.0   412200.0   17000.0
132                  dream   31900000.0    3300000.0   309200.0   19000.0
136               MrBeast2   31300000.0   83100000.0  5000000.0   11600.0
145          jacksepticeye   30400000.0    1600000.0    83400.0    2300.0
153              DaFuqBoom   29800000.0   52700000.0  1700000.0   82800.0
176               CrazyXYZ   27800000.0    4200000.0   284100.0    8600.0
177                 DanTDM   27800000.0    3500000.0   285000.0   52500.0
179            brentrivera   27600000.0    6400000.0   154100.0    5000.0
180                NichLmao   27500000.0    1500000.0    85800.0    1600.0
195             nickiminaj   26100000.0    1600000.0    98300.0    7600.0
206              AlejoIgoa   25700000.0    5700000.0   208400.0    1700.0
207                   ZHCYT   25700000.0    2600000.0   127300.0    2200.0
234                     rug   24300000.0    3200000.0    85300.0    5100.0
238             alanbecker   24300000.0    7600000.0   582600.0    5900.0
241     juandediospantojaa   24000000.0    3000000.0   133200.0    3600.0
266            DrossRotzank   23100000.0    1700000.0   105900.0    3900.0
272          AmiRodrigueZZ   22900000.0    4300000.0   294400.0    1300.0
278            StokesTwins   22700000.0   11700000.0   235000.0   10000.0
281                SSundee   22700000.0    1700000.0    59800.0    1800.0
282   souravjoshivlogs7028   22700000.0    5600000.0   382300.0    8900.0
288  VillageCookingChannel   22500000.0   21500000.0   321500.0    5900.0
300            alfredolarin   21900000.0   12900000.0   707600.0    2100.0
302              royaltyfam   21900000.0    4700000.0    67000.0    6600.0
```

In [ ]: