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Global Networks and Innovation

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Company Report: HONDA MOTORS- Dataset_2102_5

1 Introduction

Firm's internationalization strategy defines as firm's willing to enter into an international market from domestic market (Li, Yi and Cui, 2017; Karadeniz, 2020). In this paper, Honda Motor's internationalisation strategy will be discussed. In the middle part of the report the given data set of Dataset_2102_5 will be analysed through Juypiter. This includes; primary findings of the data, network analysis. In the data interpretation part, various findings of the data will be visualised through graph and charts. In the last part report will discuss on firm's innovation strategy to understand firm's competitive advantage and future prospects in the market.

2 Brief of the Company

Honda Motor Co. Ltd is a Japanese conglomerate involves mainly in motorcycle and cars manufacturing, established in 1948 and headquarter in Japan (Otsubo, 2017). Company also has the interest in financial services and "life creation" businesses- which is to do with technological advancement for betterment of people's daily life. Company has mainly four section of business. These are; Motro cycle development, Automobile sector, financial services and "Life Creation" section of the business (Honda Global Investor Relations, 2022). Company has annual revenue of 14.30tn in JPY with a net income of 795.49bn in JPY (Honda Global Investor Relations, 2022). However in the recent year Honda Motor Co Ltd had short fall of revenues -11.79%, which is from 14.93tn to 13.17tn. However, company has grown their net income 44.25% which is about 4.00 bn. JPY (Financial Times, 2022).

3 Company's Internationalization Strategy and their Discussion

3.1 Be local but not global

Unlike many other company like Toyota, Honda doesn't fully control by the headquarter. Their approach to the operation is more local, firm policy not being so top down gave them an advantage of being local while it is an international company (Hånell and Ghauri, 2015). Firm's manufacturing affiliates various location across different geographical location has autonomy in their operation (Honda Global Investor Relations, 2022). Depending on consumer behaviour and demand their subsidiaries able to develop products that meet local demand. This type of strategy gives them huge advantage to place their products in local market (Hånell and Ghauri, 2015). This strategy being considered as part of the lean management. Where management able to make quick decision having less hierarchy. Also firm being local, they are able to operate being in one place (Hånell and Ghauri, 2015). That means company can have the various department in one place, such as combines of manufacturing, design, and industrial plant.

3.2 Agility in Production

In order to meet local demand out of Japan, firm has adapted to production agility, which gives them advantage in firm's operation (Karadeniz, 2020). Unlike many other makers, Honda is different from other makers, as their production facilities can make multiple vehicles on a same production line- by switch over to a new line within a few hours (Honda Global | Power Products, 2022). While many other company may struggle to do show such agility in the production. This flexible factory approach has been invented by a term called synchronized engineering (Li, Yi and Cui, 2017;

Karadeniz, 2020). By adopting this approach company able to meet local demand, while they are still an international company in the host country (Murthy, 2020).

4 Data Analysis (Network analysis and visualizations)

4.1 Primary Findings from the data (Details about Honda Motor Co. Ltd. in 2012)

- Total patent count 8143
- Total Turnover lay 144657174.
- Total turnover 144825890
- Total asset 104917126
- Total R&D 5950823.00
- Number of employees 190338

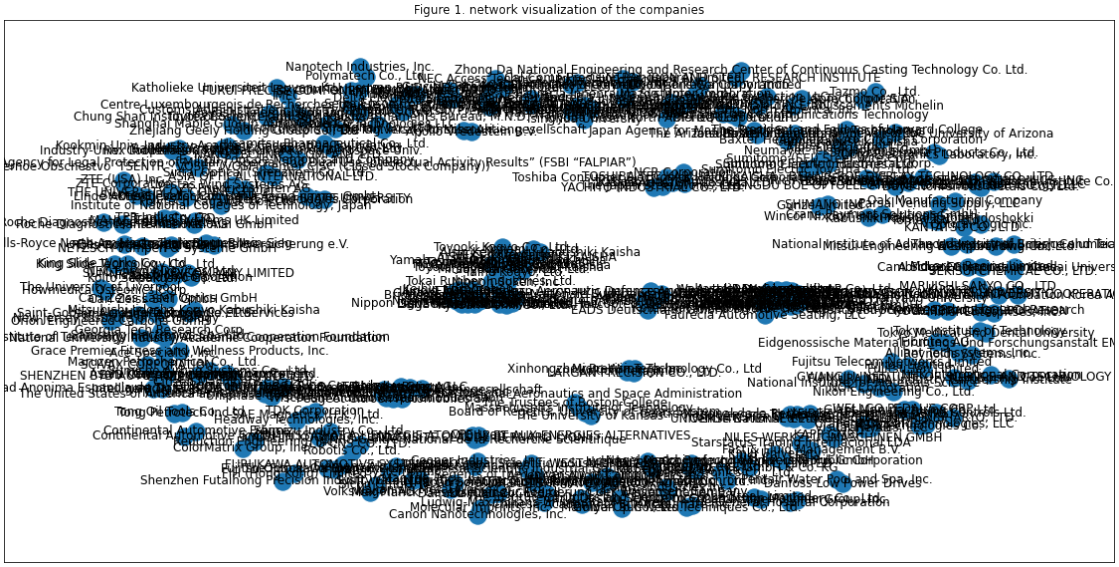
4.2 Network Visualization

Figure 1 shows the industrial network. And In the fig 2. Community detection algorithm was used. From the Figure 2 it can be seen there are two different group of entities one is red and another one is green. This detection of was identified using girvan_newman algorithm.

Provided dataset edgelist corresponds of: 1. Number of nodes : 399 2. Number of connections: 298.

[ ]:
```
#network Visualization
import networkx as ntx

# Read Our Edgelist
network = ntx.from_pandas_edgelist(edgelist,source="From",target="To")

ntx.draw_networkx(network)
```

Figure 1. network visualization of the companies



```
[ ]: #communioty detection
```

Figure 2. Community detection (Girvan Newman)

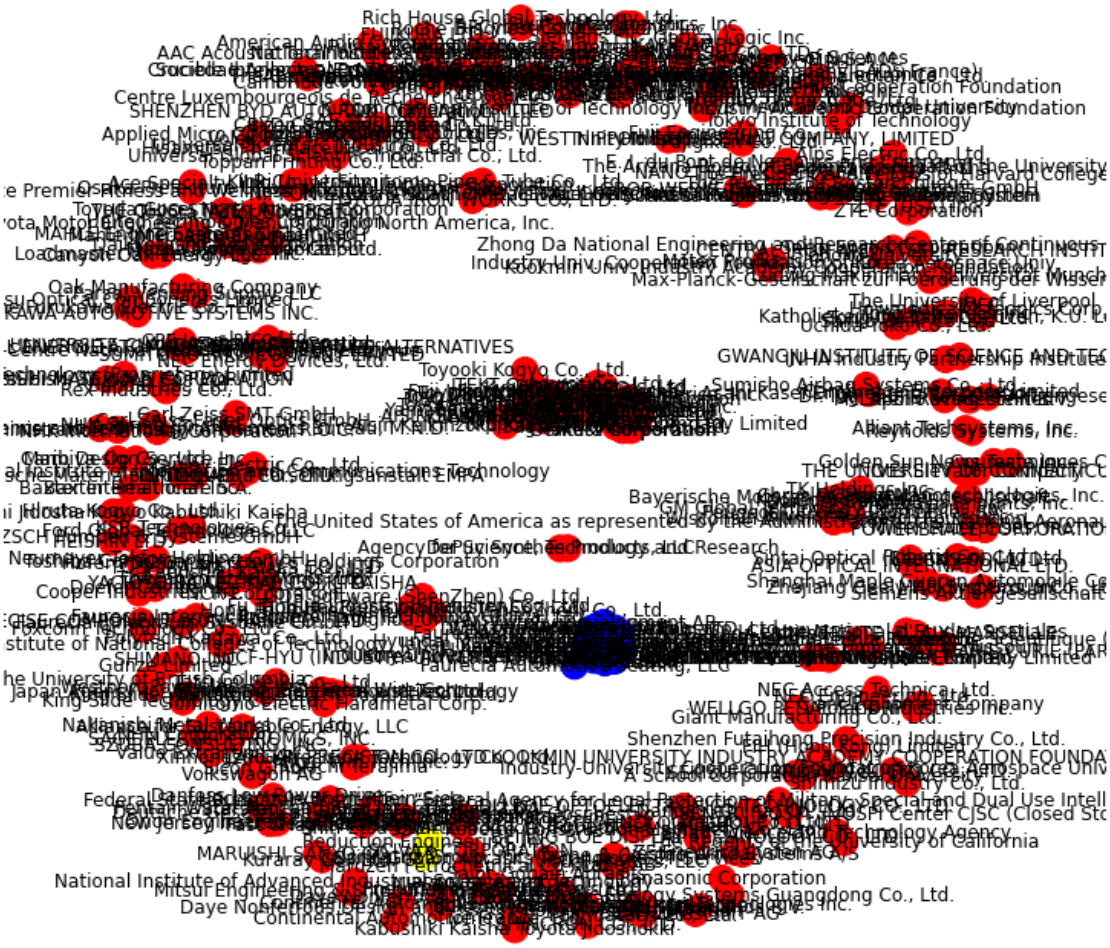


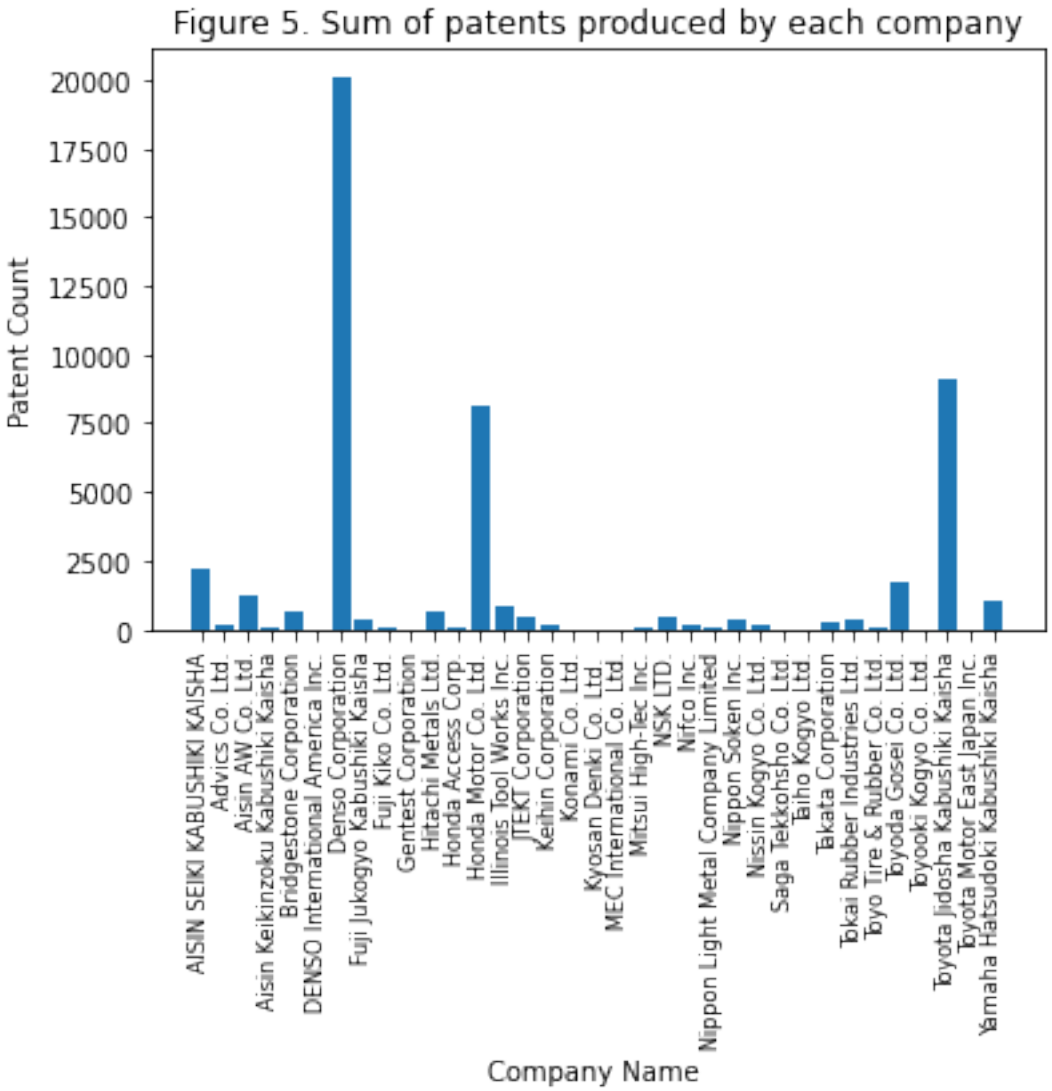
Figure 2 shows the network has 2 communities (yellow, blue). The detection of community has been identified through the method ofgirvan_newman algoirthm.

5 Exploratory Data Interpretation

5.1 Patent Count

From the figure 5, it indicates that Honda Motor Co. Ltd. had the 3rd highest patent count for the year of 2012.

[ ]:
```
#figure 3
import numpy as np
import matplotlib.pyplot as plt


# creating the dataset
data = df

index = [entity for entity, data in data.groupby(['ID'])]
values = data.groupby(['ID']).sum()['Patent_count']

fig = plt.figure(figsize = (10, 5))

# creating the bar plot
plt.bar(index, values, color ='blue',
        width = 0.4)

plt.ylabel('Patent Count')
plt.xlabel('Company Name ')
plt.title('Figure 3. Sum of patents produced by each company')
plt.show()
```

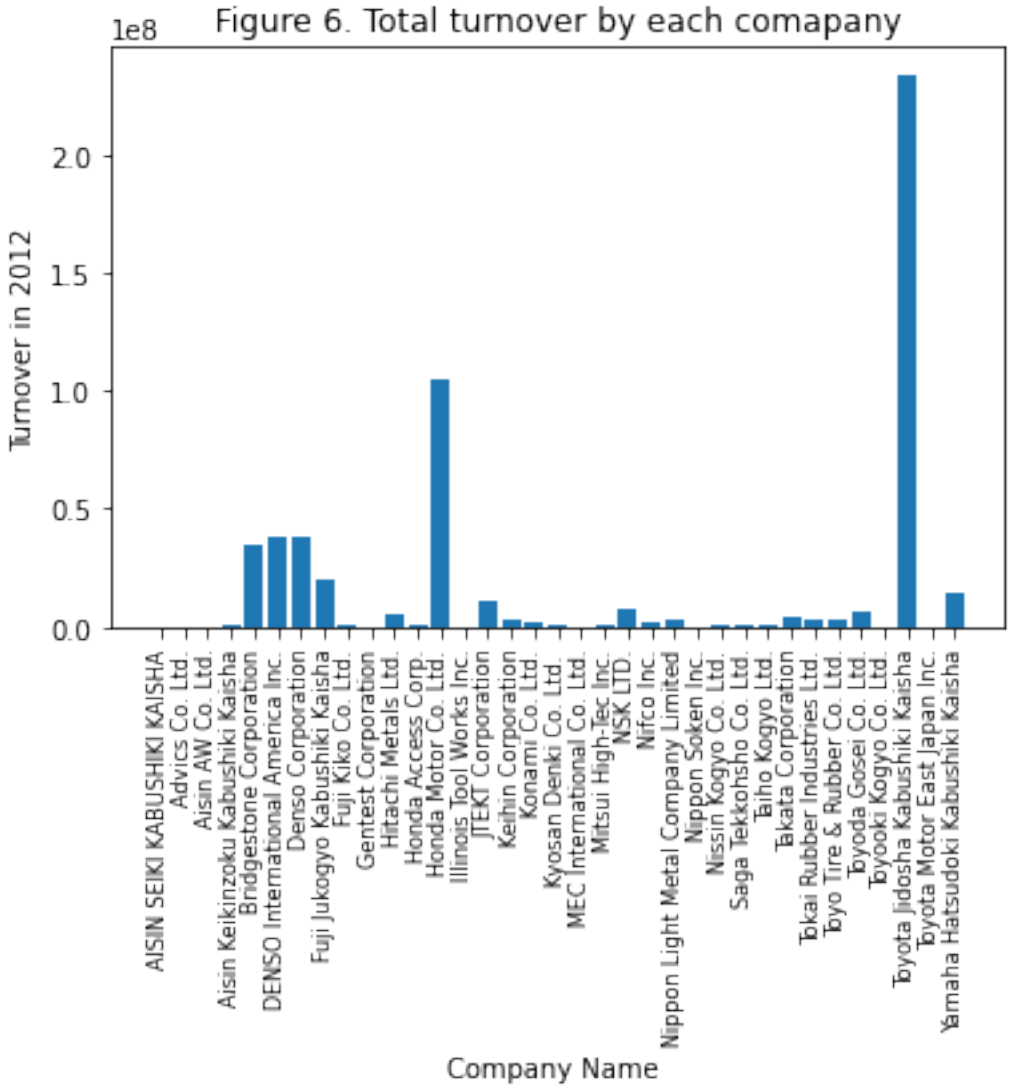


5.2 Yearly Turnover

The figure 6 indicates that Honda Motors has the 2nd highest position in total turnover after Toyota Jidosha Kabushiki Kaisha.

[ ]:
```
#figure 6

values = data.groupby(['ID']).sum()['Turnover_2012']

fig = plt.figure(figsize = (10, 5))

# creating the bar plot
plt.bar(index, values, color ='blue',
```

```
        width = 0.4)

plt.ylabel('Turnover in 2012')
plt.xlabel('Company Name')
plt.title('Figure 6. Total turnover by each comapany')
```

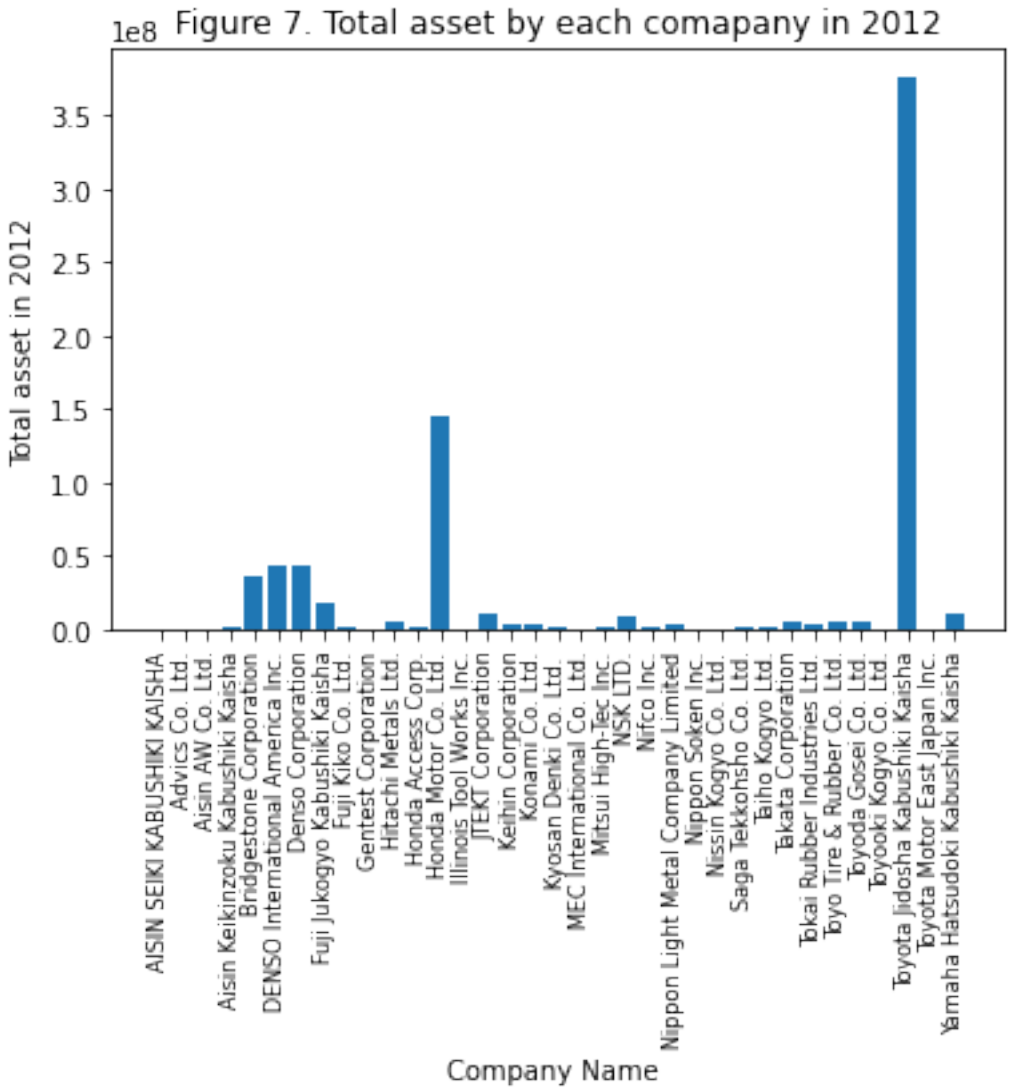


5.3 Total Asset

From the figure:7, it indicates company has the 2nd position in total assets followed by Toyota Jidosha Kabushiki Kaisha .

[ ]:
```
#Figure 7
values = data.groupby(['ID']).sum()['Total_assets_2012']
```

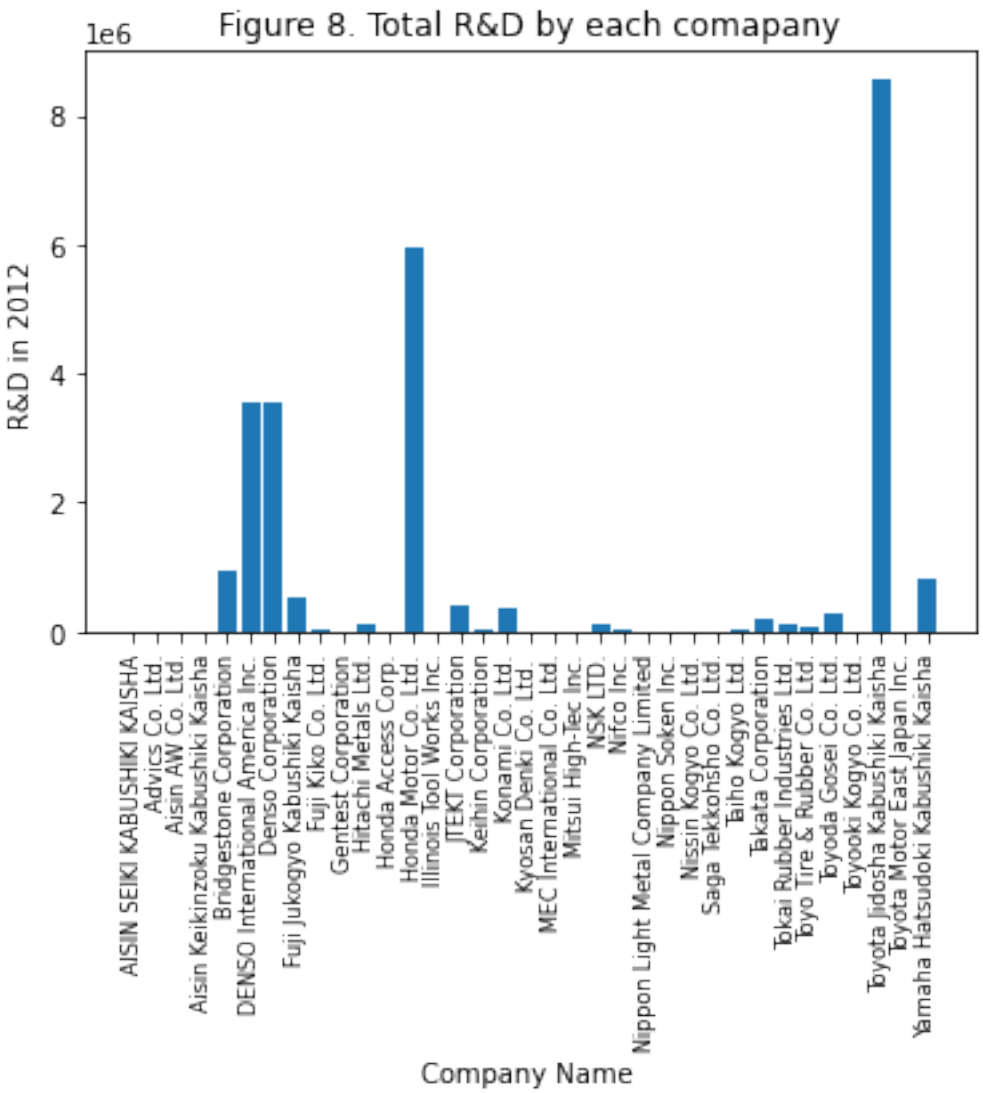
```
fig = plt.figure(figsize = (10, 5))

# creating the bar plot
plt.bar(index, values, color ='blue',
        width = 0.4)

plt.ylabel('Total asset in 2012')
plt.xlabel('Company Name')

plt.title('Figure 7. Total asset by each comapany in 2012')
```



5.4 Research and Development Expenditure

In the figure 8, it shows Honda Motors spent for the research and development (R&D) as 2nd highest company followed by Toyota Jidosha Kabushiki Kaisha.

[ ]:
```
#figure 8
values = data.groupby(['ID']).sum()['R&D_2012']

fig = plt.figure(figsize = (10, 5))

# creating the bar plot
plt.bar(index, values, color ='blue',
        width = 0.4)

plt.ylabel('R&D in 2012')
plt.xlabel('Company Name ')

plt.title('Figure 8. Total R&D by each comapany')
```

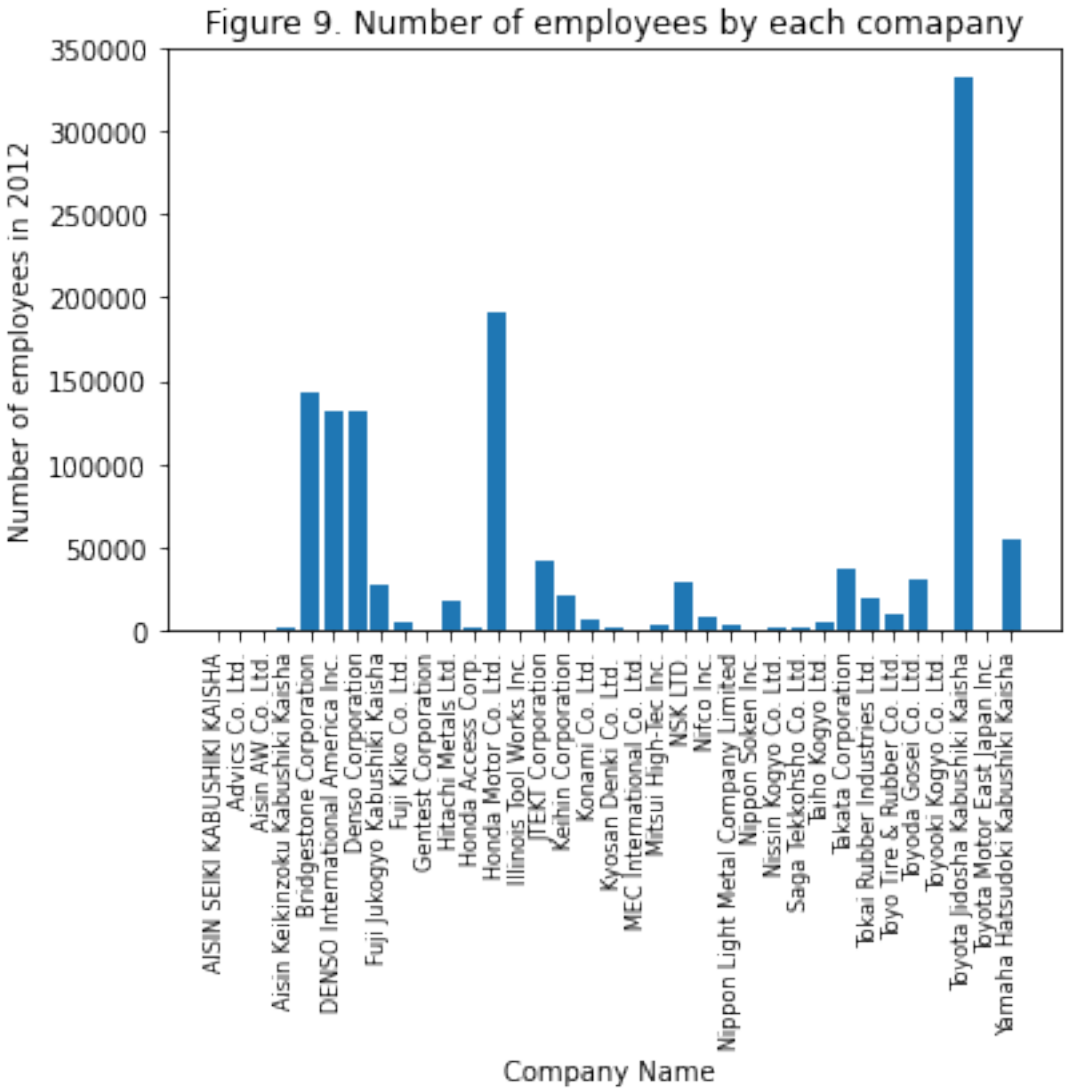


5.5 Number of Employees

Although Honda Motors has the massive number of employees, they sit under Toyota Jidosha Kabushiki Kaisha.

[ ]:
```
#figure 9
values = data.groupby(['ID']).sum()['Employees_2012']

fig = plt.figure(figsize = (10, 5))

# creating the bar plot
plt.bar(index, values, color ='blue',
        width = 0.4)
```

```
plt.ylabel('Number of employees in 2012')
plt.xlabel('Company Name ')

plt.title('Figure 9. Number of employees by each comapany')

plt.show()
```



6 Firm's innovation strategy and their Contextual Application

6.1 Technology to Enrich People's Lives

Honda has taken initiative to develop people's lives for betterment- company named that segment as "Power Items" (Honda Global | Power Products, 2022). In the last year company has distributed approximately 6 million power items to consumers in over 150 countries and regions (Honda Global | Power Products, 2022). These include various households tools and utensil, like tillers, generators, snow blowers, lawnmowers, pumps, and outboard engines. Recently company also developing electrified items, such as the Miimo robotic lawnmower and portable power source. Part of the robotic research project, company also developed Honda Walking Assist Gadget- this is the part of firm's innovative project on robotics. Company aspire to develop more power products segment that will make people lives more comfortable. Considering aged population, firm has envisioned various robotics items that may help people suffering with dementia. Company has goal of 2030, that aims to serve people across the glove to expand people life potentiality. That's the concept come from the "power product of business"- this means these products bring people daily life easier.

6.2 Embracing paradox:

Organisational Culture Company has the culture of questioning status quo- which helps the workforce to be a critical thinker. Employees meet in a certain time for few hours, this is called "waigaya," – this culture of meeting help them to understand each other thoughts, opportunity to brain storm, and come up with any breakthrough. Such meeting helps the firm to make better decision in day-to-day activities. Adopting such culture, Honda has come out from old school taboo, rather this helped their employees to think freely and critically, some called it common-wisdom- this strategic thinking helped the company to come up with new solutions to old expectation. The philosophy behind "Waigaya" means- never being fulfilled. Many believe this philosophy is difficult to interpret in different country context out of Japan. However as an International company, it is difficult to put this philosophy in context. Such, ideological push and cultivation of organizational culture helping the firm being so innovative.

7 Conclusion

The analysis shows Honda Motors emerged as one of the strongest company from various aspects. Such as company has strong R&D expenditure, and innovations ability which can disrupt the market from competitive perspective. The emerging themes from the data have shown that; company is close competitor of their domestic rival Toyota. However, Honda motors have a strong market presence in the EU and USA. Company's innovation philosophy to make people lives easier by their innovative products is considerably unique and futuristic. This will help to achieve firm's long term competitive advantage in the market.

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