In [3]:
```
import pandas as pd
import numpy as np
import seaborn as sns
import statsmodels.api as smf
from matplotlib import pyplot as plt
from scipy import stats
from scipy.stats import norm

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

Q.1 Answer: ¶

In [4]:
```
a = ('Allied Signal','Bankers Trust','General Mills','ITT Industries','J.P.Morgan & Co.','Lehman Brothers','Marriott',
    'MCI','Merrill Lynch','Microsoft','Morgan Stanley','Sun Microsystems','Travelers','US Airways','Warner-Lambert')
print(a)
```

```
('Allied Signal', 'Bankers Trust', 'General Mills', 'ITT Industries', 'J.P.Morgan & Co.', 'Lehman Brothers', 'Marriott', 'MCI', 'Merrill Lync
h', 'Microsoft', 'Morgan Stanley', 'Sun Microsystems', 'Travelers', 'US Airways', 'Warner-Lambert')
```

In [5]:
```
b = [24.23,25.53,25.41,24.14,29.62,28.25,25.81,24.39,40.26,32.95,91.36,25.99,39.42,26.71,35.00]
print(b)
```

```
[24.23, 25.53, 25.41, 24.14, 29.62, 28.25, 25.81, 24.39, 40.26, 32.95, 91.36, 25.99, 39.42, 26.71, 35.0]
```

In [6]:
```
company_details = pd.DataFrame(data={'Name of Company': a,
                                     'Measure X (%)'  : b})
company_details
```

Out[6]:

	Name of Company	Measure X (%)
0	Allied Signal	24.23
1	Bankers Trust	25.53
2	General Mills	25.41
3	ITT Industries	24.14
4	J.P.Morgan & Co.	29.62
5	Lehman Brothers	28.25
6	Marriott	25.81
7	MCI	24.39
8	Merrill Lynch	40.26
9	Microsoft	32.95
10	Morgan Stanley	91.36
11	Sun Microsystems	25.99
12	Travelers	39.42
13	US Airways	26.71
14	Warner-Lambert	35.00

In [7]:
```
company_details.describe() #Mean: 33.271333, Standard Deviation: 16.955401
```

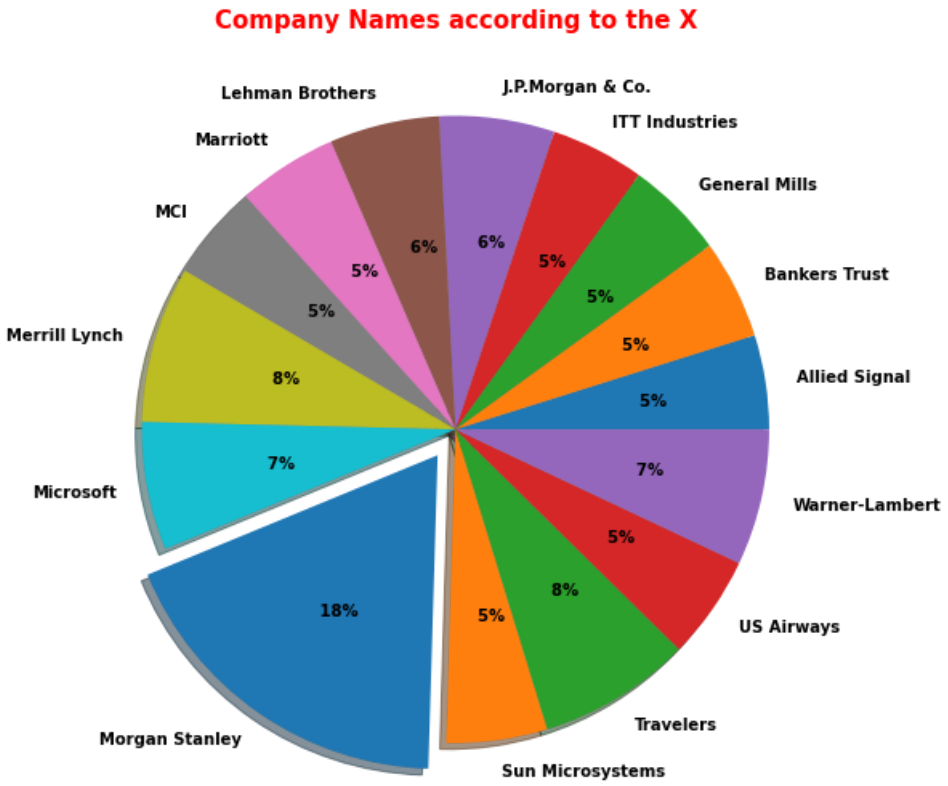
Out[7]:

	Measure X (%)
count	15.000000
mean	33.271333
std	16.945401
min	24.140000
25%	25.470000
50%	26.710000
75%	33.975000
max	91.360000

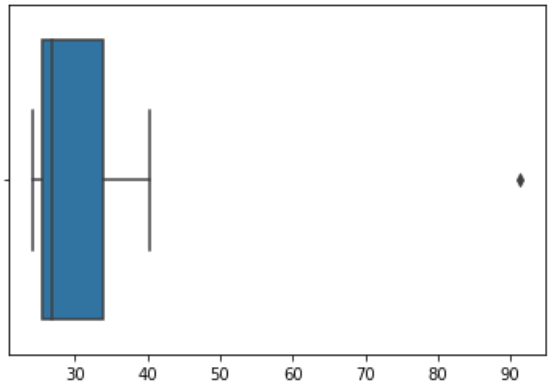
In [8]:
```
company_details.var() #Variance:287.146612
```

Out[8]:
```
Measure X (%)    287.146612
dtype: float64
```

In [9]:
```
plt.figure(figsize=(10,9))
plt.title('Company Names according to the X', fontsize = 15, fontweight = 'bold', color='r')
plt.savefig('Question1piechart.png')
plt.pie(b, labels = a,autopct='%5.0f%%',shadow = True,
        explode = [0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.1,0.0,0.0,0.0,0.0],
        textprops = {'size':'medium',
                     'fontweight':'bold',
                     'color':'black'})
plt.show()
```



In [11]:
```
sns.boxplot(b) # Here we have a Box Plot to find outliars in my dataset.
plt.show()
```



In above dataset, Morgan Stanley company % is far more away from median.