# **CAPITAL INVESTMENT IN GEMS AND JEWELLERY INDUSTRY**

***CAPITAL INVESTMENT***

Capital is the financial value of the assets, such as cash. Investment is the item which was purchased with the hope.

***EXAMPLES***

It can be mutual funds, interest, real estate, includes buildings, machines, equipment, furniture.

In an economic sense investment is the goods which are purchased that are not consumed today but are used in the future to create wealth.

***TYPES OF INVESTMENT***

1. Autonomous investment
2. Induced Investment

***AUTONOMOUS INVESTMENT***

The level of income does not affect the autonomous investment.

***INDUCED INVESTMENT***

It is that investment, which is a function of income levels, and there is a positive relationship between two. It is said that high incomes create demand for goods and services. It depends on the level of income.

In national income determination, we mostly consider autonomous investment only. Because, national Income determination is a short run analysis and in the short run, induced investment has a very little role to play. So, we take autonomous investment only.

***OBJECTIVES***

* To see if capital invested in Gems and Jewellery Industries in India have affected their growth or not.
* To see if capital investment is a function of productivity or not.

***CUMULATIVE FOREIGN DIRECT INVESTMENTS INFLOW ON GEMS AND JEWELLERY SECTOR FROM [2008-2017]***

|  |  |
| --- | --- |
| **FINANCIAL YEAR** | **CUMULATIVE FDI INFLOW (US $ MILLION)** |
| 2008 | 167.54 |
| 2009 | 251.04 |
| 2010 | 282 |
| 2011 | 301.9 |
| 2012 | 338.15 |
| 2013 | 390.76 |
| 2014 | 433.32 |
| 2015 | 696.48 |
| 2016 | 772.05 |
| 2017 | 895.96 |
| 2018 (Expected) | 1111.52 |

***GRAPH FOR THE ABOVE TABLE***

As we can see that the investments on Gems and Jewellery Sector has been increasing gradually as there are most positive incomes in the outputs this sector. Indian government was also taking many initiatives like Make in India etc.

***INVESTMENT AND INCOMES BY DIFFERENT GEMS AND JEWELLERY COMPANIES***

ANALYSIS OF MALABAR GOLD AND DIAMONDS

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 0 | 2500000 |
| 2008 - 2009 | 0 | 605000 |
| 2009 - 2010 | 32780 | 598000 |
| 2010 - 2011 | 9396689 | 1259048 |
| 2011 - 2012 | 48253922 | 4023746 |
| 2012 - 2013 | 3616274 | 3399228 |
| 2013 - 2014 | 46854610 | 1974811 |
| 2014 - 2015 | 7056400 | 7827064 |
| 2015 - 2016 | 53471 | 3500000 |
| 2016 - 2017 | 0 | 45000000 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | -0.19151041 | 1 |

Value of Correlation: -0.19151041

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.19151 |  |  |  |  |  |  |  |
| R Square | 0.036676 |  |  |  |  |  |  |  |
| Adjusted R Square | -0.08374 |  |  |  |  |  |  |  |
| Standard Error | 14048749 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 6.01E+13 | 6.01E+13 | 0.304581 | 0.596101 |  |  |  |
| Residual | 8 | 1.58E+15 | 1.97E+14 |  |  |  |  |  |
| Total | 9 | 1.64E+15 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 8613571 | 5250964 | 1.640379 | 0.139556 | -3495172 | 20722315 | -3495172 | 20722315 |
| X Variable 1 | -0.13403 | 0.242856 | -0.55189 | 0.596101 | -0.69406 | 0.425998 | -0.69406 | 0.425998 |

Value of R2 IS 0.036676

ANALYSIS OF RAJESH EXPORTS LIMITED

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 1345816449 | 86670905116 |
| 2008 - 2009 | 2585568513 | 1.23611E+11 |
| 2009 - 2010 | 4136634077 | 1.85294E+11 |
| 2010 - 2011 | 11110395 | 2.08644E+11 |
| 2011 - 2012 | 16021211 | 2.58503E+11 |
| 2012 - 2013 | 5489392 | 3.12286E+11 |
| 2013 - 2014 | 1163331360 | 2.35382E+11 |
| 2014 - 2015 | 511741048 | 3.79236E+11 |
| 2015 - 2016 | 4691229241 | 3.86227E+11 |
| 2016 - 2017 | 966055999 | 4.49914E+11 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | -0.069611339 | 1 |

Value of Correlation: -0.069611339

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.069611 |  |  |  |  |  |  |  |
| R Square | 0.004846 |  |  |  |  |  |  |  |
| Adjusted R Square | -0.11955 |  |  |  |  |  |  |  |
| Standard Error | 1.25E+11 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 6.12E+20 | 6.12E+20 | 0.038955 | 0.848461 |  |  |  |
| Residual | 8 | 1.26E+23 | 1.57E+22 |  |  |  |  |  |
| Total | 9 | 1.26E+23 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 2.7E+11 | 5.47E+10 | 4.935795 | 0.001141 | 1.44E+11 | 3.96E+11 | 1.44E+11 | 3.96E+11 |
| X Variable 1 | -4.82075 | 24.42501 | -0.19737 | 0.848461 | -61.1449 | 51.50342 | -61.1449 | 51.50342 |

Value of R2 IS 0.004846

ANALYSIS OF PC JEWELLERS

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 33500000 | 3213400000 |
| 2008 - 2009 | 66900000 | 6299760000 |
| 2009 - 2010 | 153400000 | 10030060000 |
| 2010 - 2011 | 87090000 | 19938460000 |
| 2011 - 2012 | 382915150 | 36732170289 |
| 2012 - 2013 | 5830198350 | 46130695174 |
| 2013 - 2014 | 2461860183 | 53947327607 |
| 2014 - 2015 | 2229107000 | 64077054000 |
| 2015 - 2016 | 863600000 | 73086300000 |
| 2016 - 2017 | 6445900000 | 84795500000 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | 0.677126667 | 1 |

Value of Correlation: 0.677126667

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.677127 |  |  |  |  |  |  |  |
| R Square | 0.458501 |  |  |  |  |  |  |  |
| Adjusted R Square | 0.390813 |  |  |  |  |  |  |  |
| Standard Error | 2.28E+10 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 3.54E+21 | 3.54E+21 | 6.773791 | 0.031488 |  |  |  |
| Residual | 8 | 4.18E+21 | 5.22E+20 |  |  |  |  |  |
| Total | 9 | 7.71E+21 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 2.47E+10 | 9.28E+09 | 2.66006 | 0.028803 | 3.28E+09 | 4.61E+10 | 3.28E+09 | 4.61E+10 |
| X Variable 1 | 8.163001 | 3.136418 | 2.602651 | 0.031488 | 0.930408 | 15.39559 | 0.930408 | 15.39559 |

Value of R2 IS 0.458501

ANALYSIS OF GITANJALI

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 4685420000 | 48362320000 |
| 2008 - 2009 | 2505590000 | 50888760000 |
| 2009 - 2010 | 614860000 | 65276340000 |
| 2010 - 2011 | 688800000 | 94564020000 |
| 2011 - 2012 | 298640000 | 78530120000 |
| 2012 - 2013 | 5886440000 | 1.03998E+11 |
| 2013 - 2014 | 1928222000 | 73430846000 |
| 2014 - 2015 | 15862000 | 72098303000 |
| 2015 - 2016 | 233662000 | 86144399000 |
| 2016 - 2017 | 104908000 | 1.06113E+11 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | -0.141158786 | 1 |

Value of Correlation: -0.141158786

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.141159 |  |  |  |  |  |  |  |
| R Square | 0.019926 |  |  |  |  |  |  |  |
| Adjusted R Square | -0.10258 |  |  |  |  |  |  |  |
| Standard Error | 2.11E+10 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 7.25E+19 | 7.25E+19 | 0.162647 | 0.697295 |  |  |  |
| Residual | 8 | 3.57E+21 | 4.46E+20 |  |  |  |  |  |
| Total | 9 | 3.64E+21 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 8.03E+10 | 8.81E+09 | 9.111229 | 1.69E-05 | 5.99E+10 | 1.01E+11 | 5.99E+10 | 1.01E+11 |
| X Variable 1 | -1.36628 | 3.38779 | -0.4033 | 0.697295 | -9.17854 | 6.445977 | -9.17854 | 6.445977 |

Value of R2 IS 0.019926

ANALYSIS OF TRIBHOVANDAS BHIMJI ZAVERI

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 123200000 | 4394000000 |
| 2008 - 2009 | 250730000 | 6688800000 |
| 2009 - 2010 | 101830000 | 8852500000 |
| 2010 - 2011 | 117722687 | 11944737307 |
| 2011 - 2012 | 56816408 | 13870789605 |
| 2012 - 2013 | 605629000 | 16642200000 |
| 2013 - 2014 | 557881000 | 18309572000 |
| 2014 - 2015 | 263643000 | 19487068000 |
| 2015 - 2016 | 108694000 | 16594052000 |
| 2016 - 2017 | 6964000 | 17036068000 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | 0.342791886 | 1 |

Value of Correlation: 0.342791886

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.342792 |  |  |  |  |  |  |  |
| R Square | 0.117506 |  |  |  |  |  |  |  |
| Adjusted R Square | 0.007195 |  |  |  |  |  |  |  |
| Standard Error | 5.19E+09 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 2.87E+19 | 2.87E+19 | 1.06522 | 0.332217 |  |  |  |
| Residual | 8 | 2.16E+20 | 2.69E+19 |  |  |  |  |  |
| Total | 9 | 2.44E+20 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 1.15E+10 | 2.46E+09 | 4.661903 | 0.001619 | 5.8E+09 | 1.72E+10 | 5.8E+09 | 1.72E+10 |
| X Variable 1 | 8.646395 | 8.377517 | 1.032095 | 0.332217 | -10.6722 | 27.96498 | -10.6722 | 27.96498 |

Value of R2 IS 0.117506

ANALYSIS OF TARA

|  |  |  |
| --- | --- | --- |
| **FINANCIAL YEAR** | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| 2007 - 2008 | 60280000 | 6118770000 |
| 2008 - 2009 | 85800000 | 7476670000 |
| 2009 - 2010 | 161260000 | 7877000000 |
| 2010 - 2011 | 223640000 | 10915540000 |
| 2011 - 2012 | 184286505 | 13991000000 |
| 2012 - 2013 | 302393175 | 16355000000 |
| 2013 - 2014 | 483565356 | 14221200000 |
| 2014 - 2015 | 222712703 | 14189400000 |
| 2015 - 2016 | 292654624 | 13677000000 |
| 2016 - 2017 | 30389756 | 11970000000 |

CORRELATION

|  |  |  |
| --- | --- | --- |
|  | **CASH FLOW FROM INVESTING ACTIVITIES** | **TOTAL INCOME** |
| **CASH FLOW FROM INVESTING ACTIVITIES** | 1 |  |
| **TOTAL INCOME** | 0.653747808 | 1 |

Value of Correlation: 0.653747808

REGRESSION

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.653748 |  |  |  |  |  |  |  |
| R Square | 0.427386 |  |  |  |  |  |  |  |
| Adjusted R Square | 0.355809 |  |  |  |  |  |  |  |
| Standard Error | 2.78E+09 |  |  |  |  |  |  |  |
| Observations | 10 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 4.6E+19 | 4.6E+19 | 5.971022 | 0.040339 |  |  |  |
| Residual | 8 | 6.17E+19 | 7.71E+18 |  |  |  |  |  |
| Total | 9 | 1.08E+20 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | 8.24E+09 | 1.66E+09 | 4.974445 | 0.001087 | 4.42E+09 | 1.21E+10 | 4.42E+09 | 1.21E+10 |
| X Variable 1 | 16.78062 | 6.867263 | 2.443567 | 0.040339 | 0.944684 | 32.61656 | 0.944684 | 32.61656 |

Value of R2 IS 0.427386

**> From the above data we can conclude that the regression value of PC Jewellers is high compared to the other five companies, i.e., PC Jewellers has more positive rate compared to other Gems and Jewellery Companies which are taken in the above data. Having the greater R2 value says that the investments are high as there is high income output.**

***CONCLUSIONS***

As we can see, the in the data, the income brought in by the companies are varying directly with the investments. So investment is a function of productivity.

We also see that with every fiscal year, the investment increases, therefore sustaining and contributing to the growth of the company.