ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

# MVA: A business valuation model for sustainable growth, with reference to NIFTY top 10 IT companies, India.An empirical Study

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**Abstract:**

Traditional business valuation models like Asset-based valuation, income-based valuation and market based valuation has its own advantages and disadvantages, out of 3 models, market based valuation is more prominent in finding the value of the business, in this research paper we have tried to find out the advanced market valuation method apartment from above said models for better business valuation, and the advanced method is MVA (Market Value Added), Market value of the firm and market value added as calculated in this paper is very close to each other, we also found that there is a very high degree of positive correlation between market value of the firm and market value added to the firm.

## 1. Introduction

A business value model is a set of technique used to determine the business value. There are broadly three models widely used in the corporate world, they are Asset-based business valuation model, Income-based business valuation model and Market based business valuation model. Each of the above said models uses different methods to find the value of the firm like in Asset-based business valuation uses Asset accumulation method and Excess earnings method; Capitalization of earnings, multiple of discretionary earnings and discount cash flow methods are used in Income-based business valuation, where as in market based business valuation – Guideline publicly traded company method and comparative transaction method are used. All the methods discussed above have its own advantages and disadvantages. In this paper I tried to come up with one

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ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

more method which can be included in market based valuation model i.e. MVA (Market Value added)

Market value added (MVA) could be a calculation that shows the distinction between the market price of an organization and also the capital contributed by all investors, each bondholders and shareholders. In alternative words, it's the total of all capital claims command against the corporate and the market price of debt and equity. It's calculated as:

MVA = V - K

where MVA is that the market price added of the firm, V is that the market price of the firm, as well as the worth of the firm's equity and debt (its enterprise value), and K is that the total quantity of capital endowed within the firm.

MVA is closely associated with the Market Value added (EVA), representing Net Present Value (NPV) of a series of EVA values.

When investors need to seem underneath the hood to check however an organization performs for its shareholders, they 1st look into MVA. A company's MVA is a sign of its capability to extend investor price over time. A high MVA is proof of effective management and robust operational capabilities. Positive MVA will mean the worth of management's actions and investments is a smaller amount than the worth of the capital contributed by shareholders. A negative MVA means that the management's actions and investments have diminished and reversed the worth of capital contributed by shareholders.

## 2. Review of Literature

B.G. Beld Bsc (2017) Business valuation for small and medium-sized enterprises in this he stated that DCF-methods captures the specific risks in the small firm premium. This small firm premium is specifically added for Dutch SMEs. This implies the accuracy for valuation of Dutch SMEs. Anh Le (2017) Equity valuation using discounted cash flow method has stated that how the equity valuation process is conducted, the Finnish company Viking Line, which operates in the cruise and ferry industry, was valuated and determined its investment potential. Zhaoxu Yu (2017) The improved business valuation model for RFID company based on the community mining method stressed on A reliable valuation model helps to provide the basic standard for the measurement of the

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ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

company's fair market value as well as determining its price. In this study, combing CM method and ROA, a novel business valuation model for RFID companies is proposed

## 3. Research questions and Hypothesis

The hypothesis to be tested are derived from the notion that MVA is highly associated with Market value of the firm

. Therefore this study poses the following questions.

i. Is there a significance relation between MVA and Market Value of the firm?

$H_1$ – There is a significant relationship between MVA and Market value of the firm

## 4. Objective of the study

The main objective of the firm is to determine the actual value added to the firm than the as whole value of the firm. The sub objectives are:

I. To find the market value of the firm

II. To find the Market value added to the firm

III. To examine the relationship between MVA and Market value of the firm

## 5. Research Methodology

### I. Data collection and sampling design

NIFTY top 10 IT company's financial statements are used from 2015-2019 to calculate MVA, these companies are TCS, Infosys, Wipro,HCL, Tech Mahindra, Oracle, L&T, Mphasis, Mindtree and Hexaware.

### II. Analysis and Interpretation

**Table 1: MVA of NIFTY top 10 IT Companies (Rs. In Million Rupees)**

| | Market Value Added to the firm ( In Million Rupees) | | | | |
|---|---|---|---|---|---|
| Company | 2019 | 2018 | 2017 | 2016 | 2015 |
| TCS | 7,502,301 | 2,719,060 | 2,387,521 | 2,475,994 | 2,497,062 |
| Infosys | 32,373,519 | 25,544,035 | 23,367,173 | 27,838,138 | 25,345,502 |
| Wipro | 9,667,209 | 8,744,737 | 5,139,082 | 5,822,990 | 5,025,891 |
| HCL | 13,469,480 | 12,173,238 | 11,613,970 | 12,965,816 | 10,543,633 |
| Tech Mahindra | 62,175,380 | 44,434,583 | 45,631,507 | 14,702,140 | 5,748,515 |
| Oracle Fin Services | 31,985,154 | 32,586,514 | 29,947,812 | 27,579,326 | 25,974,814 |
| L&T Infotech | 1,394,084 | 7,319,867 | 5,427,827 | 1,838,213 | 1,646,744 |


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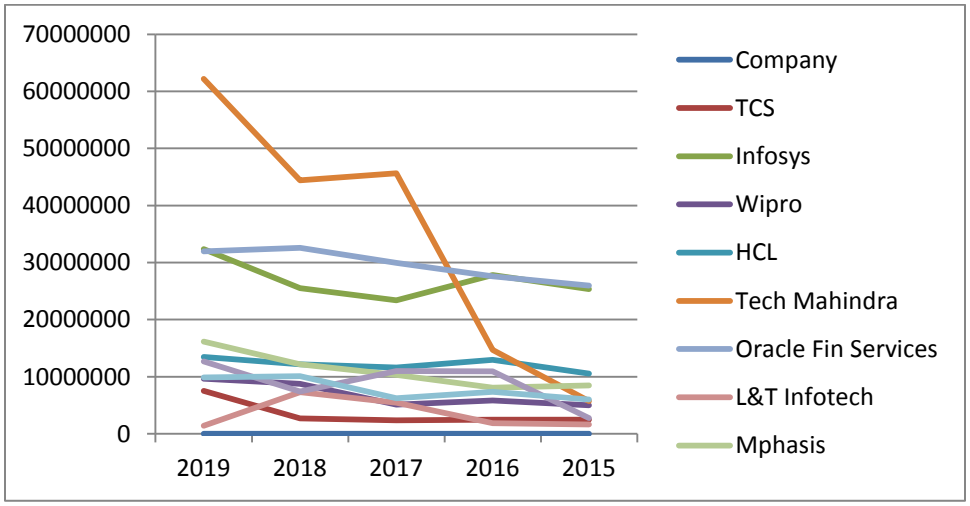
ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

| | | | | | |
|---|---|---|---|---|---|
| Mphasis | 16,185,004 | 12,200,705 | 10,332,248 | 8,096,804 | 8,487,635 |
| Mindtree | 12,675,088 | 7,423,567 | 10,974,338 | 10,937,466 | 2,764,326 |
| Hexaware Tech | 9,896,943 | 10,110,338 | 6,254,288 | 7,340,833 | 6,008,869 |

Source – Calculated

**Graph 1: MVA of NIFTY top 10 IT Companies (Rs. In Million Rupees)**




**Conclusion:** From the above table and graph where MVA of 10 companies from year 2015 to 2019 has been shown, in the graph we can see clearly that Tech Mahindra MVA has remarkably increased from 2015 till 2019, i.e. in 2015 5,748,515 million to 62,175,380 million in 2019 around 1081% increase in value added, other companies like HCL and infosys seen a moderate growth in MVA, L&T infotech MVA has drastically fallen down to 7,319,867 in 2018 to 1,394,084 in 2019 (85% fall)

**Table 2: Market value of the top 10 IT companies from 2015 to 2019 (Rs. In Million Rupees)**

| | Market Value of the firm ( In Million Rupees) | | | | |
|---|---|---|---|---|---|
| Company | 2019 | 2018 | 2017 | 2016 | 2015 |
| TCS | 7,510,191 | 2,726,646 | 2,395,323 | 2,482,496 | 2,501,604 |
| Infosys | 32,379,791 | 25,550,385 | 23,373,975 | 27,844,247 | 25,350,309 |
| Wipro | 9,672,148 | 8,748,964 | 5,143,753 | 5,827,112 | 5,029,353 |
| HCL | 13,473,226 | 12,176,520 | 11,617,207 | 12,968,475 | 10,546,125 |
| Tech Mahindra | 62,177,445 | 44,436,537 | 45,633,196 | 14,703,495 | 5,749,640 |
| Oracle Fin Services | 31,989,034 | 32,590,321 | 29,950,488 | 27,583,283 | 25,977,804 |
| L&T Infotech | 1,394,328 | 7,320,064 | 5,427,980 | 1,838,400 | 1,646,850 |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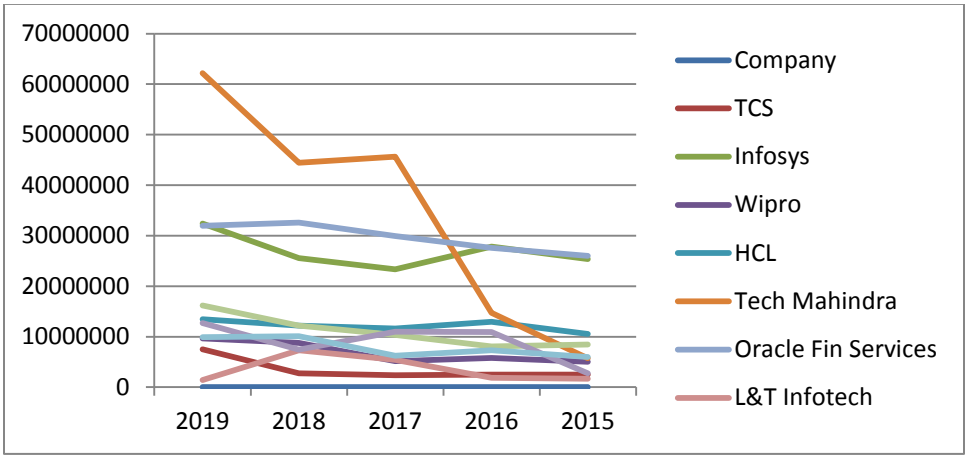
ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

| | | | | | |
|---|---|---|---|---|---|
| Mphasis | 16,185,330 | 12,201,096 | 10,332,718 | 8,097,254 | 8,488,040 |
| Mindtree | 12,675,419 | 7,423,851 | 10,974,600 | 10,937,707 | 2,764,527 |
| Hexaware Tech | 9,897,117 | 10,110,492 | 6,254,420 | 7,340,944 | 6,008,973 |

Source: Calculated.

**Graph 2: Market value of the top 10 IT companies from 2015 to 2019 (Rs. In Million Rupees)**




**Conclusion:** From the above table and graph where Market value of top 10 NIFTY companies from year 2015 to 2019 has been shown, in the graph we can see clearly that the market value of Tech Mahindra has rapidly increased from 5,749,640 Million in 2015 to 62,177,445 million in 2019 (1081% . increase in market value). Graph1 and Graph2 are seems to be appearing same but there is difference of few thousand million difference.

**Table 3: Market value and MVA on an Average (In Million rupees)**

| COMPANY | MARKET VALUE ON AN AVG | MVA ON AN AVG | DIFFERENCE |
|---|---|---|---|
| TCS | 3523252 | 3516388 | 6864 |
| Infosys | 26899741 | 26893674 | 6068 |
| Wipro | 6884266 | 6879982 | 4284 |
| HCL | 12156311 | 12153228 | 3083 |
| Tech Mahindra | 34540063 | 34538425 | 1638 |
| Oracle Fin Services | 29618186 | 29614724 | 3462 |
| L&T Infotech | 3525524 | 3525347 | 177 |
| Mphasis | 11060888 | 11060479 | 408 |
| Mindtree | 8955221 | 8954957 | 264 |
| Hexaware Tech | 7922389 | 7922254 | 135 |

Source: Calculated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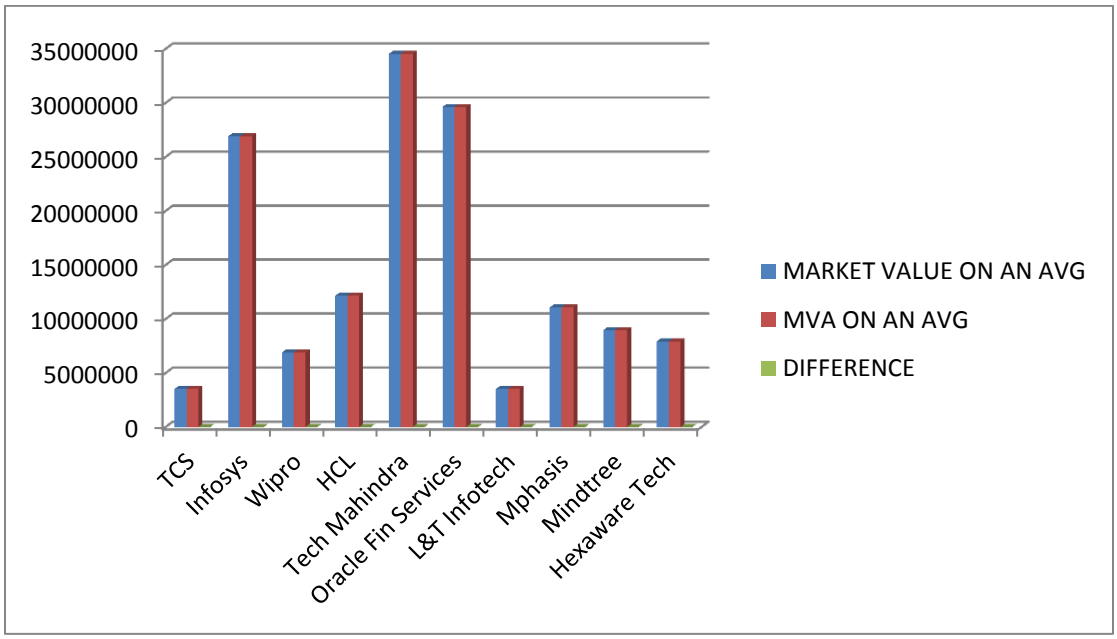
ISSN:0971-1260
Vol-22-Issue-4-October-December-2019

**Graph 3: Market value and MVA on an Average (In Million rupees)**




**Conclusion:** From the above table and graph where on an average Market value and MVA of the top 10 companies has been shown, it is noticed that market value of the firm and MVA is similar but not same , there is a difference of few thousand million in the both the variables.

**Table 4: Correlation Matrix MV and MVA values in Millions Rupees**

| company | TCS | | INFOSYS | | Wipro | | HCL | | Tech Mahindra | | Oracle Fin Services | | L&T Infotech | | Mphasis | | Mindtree | | Hexaware Tech | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA | MV | MVA |
| 2019 | 7,510,191 | 7,502,301 | 32,379,791 | 32,373,519 | 9,672,148 | 9,667,209 | 13,473,226 | 13,469,480 | 62,177,445 | 62,175,380 | 31,989,034 | 31,985,154 | 1,394,328 | 1,394,084 | 16,185,330 | 16,185,004 | 12,675,419 | 12,675,088 | 9,897,117 | 9,896,943 |
| 2018 | 2,726,646 | 2,719,060 | 25,550,385 | 25,544,035 | 8,748,964 | 8,744,737 | 12,176,520 | 12,173,238 | 44,436,537 | 44,434,583 | 32,590,321 | 32,586,514 | 7,320,064 | 7,319,867 | 12,201,096 | 12,200,705 | 7,423,851 | 7,423,567 | 10,110,492 | 10,110,338 |
| 2017 | 2,395,323 | 2,387,521 | 23,373,975 | 23,367,173 | 5,143,753 | 5,139,082 | 11,617,207 | 11,613,970 | 45,633,196 | 45,631,507 | 29,950,488 | 29,947,812 | 5,427,980 | 5,427,827 | 10,332,718 | 10,332,248 | 10,974,600 | 10,974,338 | 6,254,420 | 6,254,288 |
| 2016 | 2,482,496 | 2,475,994 | 27,844,247 | 27,838,138 | 5,827,112 | 5,822,990 | 12,968,475 | 12,965,816 | 14,703,495 | 14,702,140 | 27,583,283 | 27,579,326 | 1,838,400 | 1,838,213 | 8,097,254 | 8,096,804 | 10,937,707 | 10,937,466 | 7,340,944 | 7,340,833 |
| 2015 | 2,501,604 | 2,497,062 | 25,350,309 | 25,345,502 | 5,029,353 | 5,025,891 | 10,546,125 | 10,543,633 | 5,749,640 | 5,748,515 | 25,977,804 | 25,974,814 | 1,646,850 | 1,646,744 | 8,488,040 | 8,487,635 | 2,764,527 | 2,764,326 | 6,008,973 | 6,008,869 |
| Correlation | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | |

**Source: Calculated**

**Graph 4: Correlation Matrix MV and MVA values in Millions Rupees**



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ISSN:0971-1260
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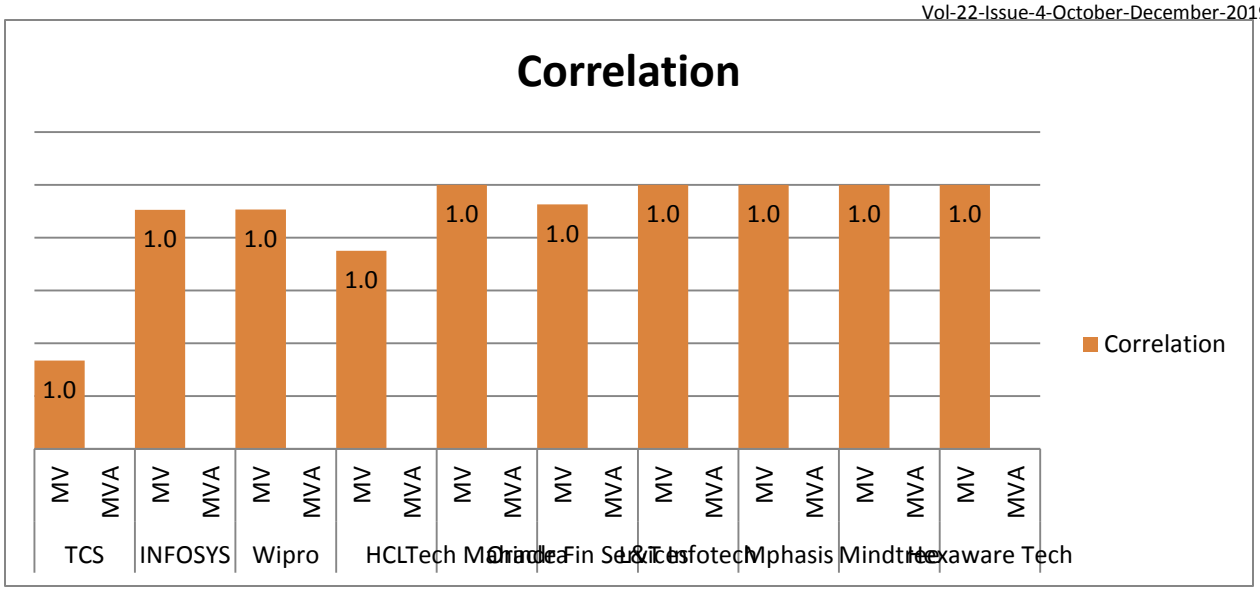


**Conclusion:** Table 4 exemplifies the existence of statistically insignificant relation among the predicted variables (MV and MVA). Hence $H_1$ is rejected implies that there is a significant difference between MV and MVA. The R value for the association between MV and MVA of all the 10 companies found to be perfectly positively correlated (+1).

## III. Findings and Conclusion

### a) Findings :

IT companies plays an important role in Indian economy, Contribution of IT companies has a greater impact in Indian GDP. Most of the investors uses market value of the firm for investment decisions, but the market value of the firm which is calculated by the business models as discussed in introduction part may not feasible for accurate or correct valuation specially for small companies, as we can see in the above analysis that market value of the firm and is very close to each other, market value of Tech Mahindra has rapidly increased from 5,749,640 Million in 2015 to 62,177,445 million in 2019 (1081% . increase in market value), other companies like HCL and Infosys seen a moderate growth in MVA, L&T InfoTech MVA has drastically fallen down to 7,319,867 in 2018 to 1,394,084 in 2019 (85% fall)

### b) Conclusion:

In this research paper we can conclude that market value of the firm and market value added to the firm is very close to each other, there is difference of around thousands to hundred millions between MV and MVA, MVA can be used as business valuation tool other than


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ISSN:0971-1260
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discussed in the introduction part, MVA decently can be an alternative business valuation method.

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