4.1 INTRODUCTION

Shareholders become the owners of a company by buying shares in a company for a market determined price. This is an asset for the shareholders and they expect the value of the asset to grow. A shareholder bears risk because the company can fail and the investor may possibly lose the entire investment in the company. Companies aim to use assets to generate revenue which is used to pay expenses that were incurred to generate the revenue and the leftover amount after deduction of all expenditure is the profit. This amount may either be retained for re-investment into profitable projects or distributed to shareholders.

Corporate executives are under increasing pressure to prove that they are creating shareholder value on a regular basis. This pressure has led to an emergence of a variety of measures that claim to quantify value creating performance. Creating shareholder value has suddenly become a credo in corporate boardrooms. Out of the several reasons for this renewed emphasis on measuring and managing shareholder value, the following are the prominent reasons:

- Capital markets are becoming increasingly global. Investors can readily shift investments to higher yielding, often foreign, opportunities.
- Transparency of Corporate governance practices requires the owners now demanding greater accountability from corporate executives. Manifestations of the increased assertiveness of shareholders have led to the necessity for executives to justify their compensation levels, and well-publicized lists of underperforming companies and overpaid executives.
Executives are concerned with self-conservancy.

4.2 THE SIGNIFICANCE OF VALUE

A variety of ideas of value have been put forward in the accounting literature, including the value at which an asset is carried on a balance sheet, the price at which buyers and sellers trade in an open market, and the present value of future cash flows. Value can simply be defined as the quality that renders something desirable or valuable or useful; the amount of money needed to purchase something; or what must be given or done or undergone to obtain something. Consequently, the creation of value by a firm leads to the enhancement of the worth of its stakeholders. To the stakeholder, this may mean greater appreciation, more power or stronger political relationship, improvement in social standing or greater contentment. In this study, however, the focus is on the factors, which determine the creation of value for the shareholders of a firm. Thus, value creation can be defined as the increase in the financial worth of shareholders, as measured by the ratio of market value of shares to the book value of shares, engendered by the performance of an organization (Pandey, 2002 and Fruhan, 1979).

In the opinion of Hailemariam (2001), Valez-Pareja (2001) and Fernandez (2002), a firm creates value for its shareholders when the firm’s return on assets is greater than its cost of capital or the required return to equity. Therefore, by definition, value creation is the increase in shareholders’ wealth coming as a result of the firm’s operational efficiency. The general hypothesis in most finance literature is that all the markets in which the firm operates are perfectly competitive. This hypothesis is the “economic justification” for the creation of shareholder value (CSV) as the principal goal of the firm (Booth, 1998). Although earnings figures are very important in their own rights, real corporate performances as compared to market benchmarks are the fundamental drivers of stock market values. Therefore, the key question to answer is whether the funds put into the care or protection of managers yields a higher return than the
owners can get elsewhere. In other words, the creation of shareholder value is the increase in equity market value, the shareholder value-added, the shareholder return and the required return to equity. That is, when it surpasses shareholders’ ‘expectations’.

4.3 THE MYTHS OF SHAREHOLDER VALUE CREATION

Numerous myths about shareholder value malaise people’s thinking. Clouded thinking results in misallocation of resources and dissipation of value. Some of the popular myths are:

**Myth number one:**

The way to create shareholder value is to have a concentrated focus on the "bottom line." This often means managing the company constantly in such a way that it meets or exceeds stock market expectations about a company's earnings per share (EPS) or some other bottom-line measure of financial performance.

**Myths number two:**

There are unavoidable conflicts between the interests of stakeholders. Consequently, maximising the value to shareholders will involve subordinating and sacrificing the interests of other stakeholders, like employees and customers.

**Myths number three:**

Giving every employee a share of stock is a sure way to motivate employees to maximise shareholder value.

**Myths number four:**

The stock market is myopic and cares only about short-term earnings.
Chart 4.1 Myths of Shareholder Value Creation

<table>
<thead>
<tr>
<th>MYTH</th>
<th>Corresponding Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shareholder value is created by an exclusive focus on bottom line.</td>
<td>Excessive focus on quarterly earnings, budgets, cost cutting, head-count slashing</td>
</tr>
<tr>
<td>2. Maximising Shareholder value means sacrificing the interests of employees and customers</td>
<td>Alienated customers, due to poor customer service, low employee loyalty, high turnover, and lost capacity.</td>
</tr>
<tr>
<td>3. Giving employees shares of stock makes they act like owners.</td>
<td>Employees typically perceive that their individual actions will minimally affect the stock price and it becomes less likely that employee will behave like owners.</td>
</tr>
<tr>
<td>4. The stock market is myopic and cares only about short run.</td>
<td>Excessive focus on immediate financial results at the expense of sustainable and long-term value creation, including cutting back on employee development, research and development investment, new product introduction.</td>
</tr>
</tbody>
</table>

Source: Anjan V. Thakor, Jeff DeGraff et al., “Creating Sustained Shareholder Value - And Dispelling Some Myths”, Mastering Strategy, Financial Times

Chart 4.1 above summarises these myths and explains how they can drag corporate behaviour away from the sustained creation of shareholder value. It indicates how companies guided by these myths make decisions that can destroy shareholder value.

4.4 TECHNIQUES FOR MEASURING SHAREHOLDER VALUE

The measures available to management and shareholders to gauge a firm’s value-creation performance can be classified into three broad categories. The first category includes The Value Creation Measures which rely mainly on the financial statements produced by the firm, but require an estimation of the cost of capital and a variety of other adjustments to traditional income statements and balance sheets to reflect operating cash flows and an appropriate capital base. The second category of
measures includes *wealth-creation* measures that rely exclusively on stock market data and, thus, are mainly applicable to exchange listed companies. They concentrate on the impact on shareholder wealth and use that as an indirect measure of annual (or periodic) performance. The third set of measures is of *hybrid value/wealth-creation* measures and requires both financial statement and stock market data.

Company differences in financial sophistication, internal reporting capabilities, and business characteristics create a need for customised value measurement approaches. The techniques differ along a number of dimensions, including:

1. The simplicity/accuracy trade-off implied in each;
2. Management’s ability to understand and control the measures; and
3. The complexity required for implementation.

Chart -4.2 below describes the classification of shareholder value creation measures
Chart - 4.2 Classification of Shareholder Value Measures

SHAREHOLDER VALUE MEASURES

FINANCIAL MARKET PRICE BASED MEASURES
- HPR, HPY, PE Ratio, MB Ratio

INTRINSIC VALUE MEASURES
- Accounting Based Measures
  - EPS, ROI, ROE, DPS, Dividend Yield
- Value Based Measures
  - Value Creation Measures
    - FCF, DCF, Economic Value, EVA, Equity Spread, Implied Value, CFROI, SVA, CVA
  - Wealth Creation Measures
    - TSR, Annual Return (AR)
  - Hybrid Measures
    - MVA

4.4.1 FINANCIAL MARKET PRICE BASED MEASURES

- **Holding Period Return (HPR)**

*Holding Period Return (HPR)* is a very popular measure of shareholder wealth. It is calculated, based on the change in the market price of an investment over the period for which it is held. The formula for calculating HPR as suggested by Reilly & Brown (2008) is as follows:

\[
HPR = \frac{\text{Ending value of investment}}{\text{Beginning value of investment}}
\]

*HPR* will always be equal to or greater than zero. A *HPR* value of greater than 1 means that shareholder wealth is created, *HPR* of 1 means that neither wealth is created nor destroyed, *HPR* of less than 1 means that shareholder wealth is destroyed. *HPR* of zero means that shareholder has lost all his investment. *HPR* actually measures wealth created for the period for which investment is held by the shareholder.

- **Holding Period Yield (HPY)**

Shareholders prefer to measure wealth created in percentage terms on an annual basis. This is calculated as *Holding Period Yield (HPY)* as given below:

\[
\text{HPY} = HPR - 1
\]

Annual HPY = \((HPR)^{1/n} - 1\)

*Where, n is the holding period of the shareholders.*
**Price Earnings Ratio (PE)**

*It is another important measure of shareholder wealth. It represents the price that the investors are prepared to pay for the share for every rupee of earnings made by the Company. It is calculated as:*

\[ PE = \frac{\text{Market Price Per Share}}{\text{Earnings Per Share}}. \]

A high *PE* ratio generally indicates that the investors think that the company is performing well and expect the long term return on investments to be high due to high growth. A higher level of *PE* ratio than past may also indicate more gains to existing shareholders who have invested into the shares earlier. High *PE* can also result because of a temporary depression in earnings.

**Market to Book Ratio (MB)**

*It measures the ratio of market value of a share to its book value. Book value of a share is the net worth divided by number of outstanding shares. It represents the amount which the company has received from its shareholders and includes investments made by the company on their behalf by retaining profits (internal accruals). MB ratio is calculated as:*

\[ MB \text{ ratio} = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}} \]

MB ratio shows how the company is worth for every one rupee of shareholders money employed as capital in the company. An MB ratio of more than 1 means the company has added more value to shareholders than the capital contributed by them and vice versa.
4.4.2 INTRINSIC VALUE MEASURES

The intrinsic value measures indicate the value created by the management of the company through efficient management of resources. It is expected that the value created for the shareholders in the capital markets is derived from the intrinsic value created by the management of the company. Intrinsic value measures used for measuring shareholder value can be classified in two different groups. They are:

[A] Accounting based measures, and

[B] Value based management measures.

[A] ACCOUNTING BASED MEASURES

Traditional Accounting based measures of shareholder value are based on data drawn from the audited accounting records of the company. They include measures, like the Earnings per Share, Return on Investment, Return on Equity, Dividend per Share and Dividend Yield. These measures are briefly described below:

❖ **EPS - Earnings per Share**

Earnings per share represent the profits earned by the Company and available for distribution to the shareholders for the accounting period. It is calculated as given below:

\[
\text{Earnings per share} = \frac{\text{Profits After Taxes and Preference Dividend}}{\text{No. of Outstanding Shares}}.
\]

❖ **Return on Investment (ROI)**

It is one of the most popular measures used by the companies for evaluating their performance. It is also reported in the annual accounts as one of the key measures of success. It is also one of the main measures of the divisional performance.
ROI is calculated as:

\[ \text{ROI} = \frac{\text{Net income} + \text{Interest (1 - tax rate)}}{\text{Book Value of Assets}}. \]

Though Return on Investment is a popular measure, increase in \( \text{ROI} \) is no guarantee of shareholder value creation. Only if \( \text{ROI} \) exceeds the cost of capital for the company, shareholder value is created.

\[ \textit{Return on Equity (ROE)} \]

ROE measures the returns to providers of equity funds. It is calculated as given below:

\[ \text{ROE} = \frac{\text{Net Income}}{\text{Book Value of Shareholders' Equity}}. \]

Where shareholders’ equity refers to the aggregate of paid up capital and reserves and surplus appearing as a part of shareholders’ funds. Net income is the profit after taxes and preference dividend. Since \( \text{ROE} \) is similar to \( \text{ROI} \), it has all the disadvantages as \( \text{ROI} \). Further, \( \text{ROE} \) is very sensitive to the leverage and can give a misleading picture of value created. If the management’s task is to increase \( \text{ROE} \), the manager can accept a bad project, which is financed by the debt, and reject the good one if it is financed by the equity.

\[ \textit{Dividend Per Share and Dividend Yield} \]

Dividend per share is measured as the total dividend declared by the company for the accounting period upon the number of outstanding shares. It is the actual payment received by the shareholders. It is only a measure of partial wealth for the shareholders. Shareholders total returns on investment comprise of both dividend and capital returns. Dividend yield is measured as follows:
Dividend Yield = \[ \text{Dividend per Share / Market Price} \].

It measures the dividend returns to a shareholder who invests in the stock at current market prices. All the accounting measures discussed above are criticised by different authors as measures not suitable for measuring performance with the objective of value enhancement.

Traditional accounting based measures of value, like Return on Investment, Earnings Per Share, cease to be relevant under the changing conditions as they fail to take into account the factors that drive shareholder value. Contributors of capital to a given risky venture expect returns which are equal to the opportunity cost of such capital. Capital markets measure value by discounting the expected future cash flows at a rate that the investors expect to get, if they invest in companies with similar risks. Hence, a company that reports accounting profits need not necessarily be a value creator from the perspective of a shareholder (Drucker, 1998).

It became essential for management not only to understand the process of value creation but also to create tangible links between their strategies and value creation to facilitate both decision making and performance measurement. To meet this need, a novel approach to management known as the Value Based Management’ (VBM) was innovated.

[B] VALUE BASED MEASURES

- Concept of Value Based Management:

Managing for value has become a priority for most executives around the world. Managerial accounting has evolved into a more strategic approach that emphasizes the identification, measurement and management of key financial and
operational drivers of shareholder value. The goal of any company is to manage assets in such a way that it will create a profit for the owners of the company. The owners need measures that will indicate how much profit has been made in the financial period. Historically companies have been using accounting measures to fill this gap. These traditional accounting performance measures started to appear in the early 1900’s and have been used ever since. Investors are becoming more sophisticated in valuing a company, so that the traditional balance sheet and income statements just do not offer adequate information on which to base their decisions. One of the main issues seen with traditional accounting performance measures is that they do not take into consideration the cost of investment. Value-based management (VBM) was proposed to fill this gap of taking into consideration the cost of capital invested. VBM in theory involves two steps. A company first has to adopt an economic profit metric as a key measurement of performance, and secondly link this measure to executive compensation (Haspeslagh, Noda & Boulos 2001).

VBM measures, such as Economic Value Added (EVA), Economic Profit (EP) and Cash Flow Return on Investment (CFROI), have gained popularity since the late 1980's (Maditinos et al. 2009). In essence, VBM is the principle of incorporating the cost of investment into traditional accounting measures, such as profit after tax, in order to manage for the maximum shareholder value. This implies that a company that uses the VBM principles needs to identify those measures that are closely related to creating shareholder value, and incorporate them into strategic decision making.

VBM (2012) gives two definitions of value-based management.
The first definition states that it is the management approach that ensures that corporations are consistently run on value. VBM therefore includes all of the following:

Creating value (ways to actually increase or generate maximum future value); Managing for value (governance, change management, organisational culture, communication, leadership); and, Measuring Value (valuation). This definition relates to that of Wang et al. (2006) in the sense that it speaks to the concept of creating value. The second definition supplied by VBM (2012) is as follows:

**Definition 2:** Value-based Management aims to provide consistency with regard to: the corporate mission (business philosophy); the corporate strategy (courses of action to achieve the corporate mission and purpose); corporate governance (who determines the corporate mission and regulates the activities of the corporation); the corporate culture; corporate communication; organisation of the corporation; decision processes and systems; performance management processes and systems; and, reward processes and systems.

According to Wang et al. (2006) the weakness of having the goal of maximising shareholder wealth is that the maximum of shareholder wealth is related to the maximum of the market value of the stock. Factors that influence the change in stock price not only include the enterprise’s business performance, but also investor psychology expectations, economic policies and political situations. In fact, these external factors can be grouped under four main headings. They are:

- Economic environment;
- Political environment;
✓ Technological environment; and

✓ The regulatory environment.

Fortunately, because this study is limited to the banking sector in India, one can assume that these factors influence all banks in a similar way. The same assumption applies for the macro-economic environment.

полнен В-едная Менеджмент Фреймворк

The Value-based Management (VBM) system is an integrated framework for measuring and managing businesses with the explicit objective of creating superior long-term value for shareholders. Ittner & Larcker (2001) have provided a conceptual framework of Value Based Management with six basic steps. These steps are as follows:

1. Choose specific internal objectives that lead to shareholder value enhancement.
2. Select strategies and organizational designs consistent with the achievement of the chosen objectives.
3. Identify the specific performance variables, or “value drivers”, that actually create value in the business given the organization’s strategies and organizational design.
4. Develop action plans, select performance measures, and set targets based on priorities identified in the value driver analysis.
5. Evaluate the success of action plans and conduct organizational and managerial performance evaluations.
6. Assess the on-going validity of the organization’s internal objectives, strategies, plans and control systems in light of current results and modify them as required.
These six steps are summarised in the following flow chart adapted from Ittner & Larcker (2001).

**Chart - 4.3 Value-Based Management Framework**

Principles of Value-Based Management

Rappaport (2006) asks the question what companies have to do if serious about creating value. He then draws on his vast experience as a consultant to give the ten basic governance principles for value creation that help companies realize value along with a sound, well-executed business model. These ten principles are briefly summarized in Chart 4.4 below.

Chart- 4.4 Principles of Value-Based Management

- **Principle 1**: Do not manage earnings or provide earnings guidance. Earnings has no connection with value or change in value.
- **Principle 2**: Make strategic decisions that maximize expected value even at the expense of lowering near-term earnings. What is the expected incremental value of future cash flows associated with a given strategic decision?
- **Principle 3**: Make acquisitions that maximize expected value even at the expense of lowering near-term earnings. Sound M&A decisions are based on their prospects for creating value, not their immediate EPS impact.
- **Principle 4**: Carry assets only if they maximize value. Reduce capital employed by focusing on high value adding activities and outsourcing low value adding activities.
- **Principle 5**: Return cash to shareholders when there are no credible opportunities to invest. Shareholders can earn a better return elsewhere.
How to Create Shareholder Value using VBM?

Taggart, Kontes and Mankins (1994) first coined the word value-based management. They suggested a framework that links the company’s strategy to its value in capital markets. They have identified five key institutional value drivers that are essential for sustainable value creation: Governance, Strategic Planning, Resource Allocation, Performance Management, and Top Management Compensation. The VBM approach uses
metrics at different levels that are aligned to the institutional drivers, key functions and processes. The shareholder value measured using the methods suggested using the VBM approach is known as "Intrinsic value" of shares. Investment decisions are taken by comparing the share prices in the market with the intrinsic value of shares. If intrinsic value is less than market price the share is overvalued and vice versa. By linking intrinsic value measures and it value drivers with performance at different levels, it is possible to manage and enhance shareholder value in the long run. Rappaport (1986) suggested seven drivers within a business that can be managed to create value:

✓ A growth in Sales

✓ An increase in operating profit margin

✓ A reduction in the cash tax rate

✓ A reduction in the working capital investment

✓ A reduction in the fixed asset investment

✓ A reduction in the weighted average cost of capital

✓ An increase in the competitive advantage period.

The Theory is that improvements in these value drivers lead to an increase in shareholder value. A value driver is any variable that significantly affects the value of the organization. To be useful, however, value drivers need to be organized so that management can identify which have the greatest impact on value and assign responsibility for their performance to individuals who can help the organization meet its targets.
Value-Creation Measures And Financial Statements

Value-creation measures require some rewriting of the financial statements to undo any adjustments made by the firm to satisfy external reporting requirements for generally accepted accounting principles and to bring the reported earnings closer to cash flows. Table-4.1 compares the traditional income statement and value based formats. The traditional income statement provides no indication as to whether the earnings generated by the firm's met investor expectations based on the firm's business risk and leverage risk. It simply provides an earnings number, popularly called the bottom line. Typically, if the bottom line is positive, the firm is said to have done well. Yet, firms that show a positive bottom line in a traditional sense may in fact have destroyed value. The value-based view explicitly recognizes the capital charge associated with the use of capital. The bottom line under this format is, therefore, quite different from that under the traditional view. A positive bottom line, “economic value” signifies a superior performance because it accounts for all four types of costs including that associated with capital. The value-based income statement concentrates on the operating performance of the firm by focusing on cash flow from operations and accounts for interest expense through capital charge calculations. Thus, it adjusts taxes as if the firm were all equity financed. This view is consistent with the free-cash-flow view.
Table- 4.1 Comparison of Traditional and Value Based Income Statements

<table>
<thead>
<tr>
<th>Traditional Income Statement</th>
<th>Value-Based Income Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>Revenues</td>
</tr>
<tr>
<td><strong>less:</strong> Cost of Goods Sold</td>
<td><strong>less:</strong> Cost of Goods Sold</td>
</tr>
<tr>
<td>equals: Gross Profit</td>
<td>equals: Gross Profit</td>
</tr>
<tr>
<td><strong>less:</strong> Depreciation, Sales, Administration, and Other</td>
<td><strong>less:</strong> Depreciation, Sales, Administration, and Other</td>
</tr>
<tr>
<td>equals: Profit Before Interest and Taxes (PBIT)</td>
<td>equals: Profit Before Interest and Taxes (PBIT)</td>
</tr>
<tr>
<td><strong>less:</strong> Interest</td>
<td><strong>less:</strong> Adjusted Taxes</td>
</tr>
<tr>
<td>equals: Profit before Taxes</td>
<td>equals: Net Operating Profit After Taxes (NOPAT)</td>
</tr>
<tr>
<td><strong>less:</strong> Taxes</td>
<td><strong>less:</strong> Capital Charge</td>
</tr>
<tr>
<td>equals: Net Income</td>
<td>equals: Economic Value Added</td>
</tr>
</tbody>
</table>


❖ Value-Based Management Metrics

Rappaport (2006) states that a company needs to outperform an index of performance for its peers in order to create long-term value. Many organisations have adopted a new breed of performance measures that are based on shareholder value, known as value-based management. Shareholder value is the financial value created for shareholders by the companies in which they invest (Christopher & Ryals 1999). Value based measures can be classified into three major categories as:

(a) Value Creation Measures

(b) Wealth Creation Measures
(c) Hybrid Measures

The most popular and widely used measures under these categories are as under:

(a) Value Creation Measures

- Discounted Cash Flow (DCF)
- Free Cash Flow (FCF)
- Economic Value
- Economic Value Added (EVA)
- Economic Profit
- The Equity Spread
- Implied Value
- Cash Flow Return on Investment (CFROI)
- Shareholder Value Added (SVA),
- Cash Value Added (CVA)

(b) Wealth Creation Measures

- Total Shareholder Return (TSR)
- Annual Economic Return

(c) Hybrid Measures

- Market Value Added (MVA)

A brief description of these measures is given below.
(a) Value Creation Measures

❖ Discounted Cash Flow (DCF)

DCF is the present value of all expected future cash flows discounted back to the present at the company’s cost of capital (Ryan et al. 1999, Ryan & Trahan 2007). Alcar popularized DCF as a metric linked to shareholder value, and the notion that cash flows may be broken down into a number of value drivers. Shareholder Value Analysis is a form of discounted cash flows. The cash flows are the Free Cash Flows (FCF’s), discounted to the present time by a discount rate (Starovic et al. 2004).

❖ Free Cash Flow (FCF)

Free Cash Flow (FCF) is the amount of cash flow available to investors who are the providers of equity capital. It represents the net amount of cash flow remaining after the firm has met all operating needs and paid for investments, both long and short term (Megginson et al. 2010). Shareholder wealth is influenced by the usage of this FCF.

Table- 4.2 Calculation of FCF

<table>
<thead>
<tr>
<th>Sales Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less: Operating Cost</td>
</tr>
<tr>
<td>Less: Taxes</td>
</tr>
<tr>
<td>Less: Net Investment</td>
</tr>
<tr>
<td>Less: Change In Working Capital</td>
</tr>
<tr>
<td>Equals To: Free Cash Flow</td>
</tr>
</tbody>
</table>

Source: Investopedia.com
Economic Value (EV)

The origin of EV measures can be traced to Ricardo in the mid-1800s who used the term *super normal rent* to describe EV. Economic value measures include residual income, economic value added, shareholder value added, economic profit, and economic value creation. These measures are expressed in currency units. The use of economic value (EV) as a measure of business unit and company performance has become increasingly widespread in recent years. EV is calculated as net operating income after taxes (NOPAT) minus the capital charge.

- The first step in calculating EV is to calculate NOPAT;
- The second step is to estimate the capital employed;
- The third step is to estimate the appropriate weighted average cost of capital (WACC); and
- The fourth step is to calculate the capital charge and EV.

The key difference between EV measures and traditional measures of performance such as after-tax rate of return on net assets (RONA) is that EV accounts for the cost of capital and expresses the value-creation performance in easily measurable units. Moreover, unless a specific cost of capital is used to compare RONA, managers cannot know whether they have created value. EV measures have some additional advantages:

- It motivates a capital-usage discipline by explicitly recognizing the importance of capital and its associated costs,
- It clearly shows the linkage between the operating-margin performance and capital intensity, and thereby can be used
to better pinpoint opportunities for improvement as well as to assess the appropriate level of investment to achieve these improvements.

✓ It can easily link value drivers such as price and product mix to value creation. It is consistent with the standard discounted cash flow (DCF) or the NPV framework.

✓ It can be used to evaluate managerial performance and to provide incentives since it is measured annually.

However, there are also some challenges in the actual calculation of all of the EV measures. These challenges arise because the actual calculations may require that precise estimates of the cost of capital be derived and several adjustments to the financial statements be made. The exact number and magnitude of adjustments required to convert the published numbers to value-based numbers depends upon the specific situation. In general, four key principles should be followed:

✓ First, cash flow from operations must be derived by making the necessary adjustments to reported earnings. Thus, any noncash charges to reserves or write-offs affecting the income statement (and balance sheet) must be reversed.

✓ Second, appropriate attention must be given to accounting for expenses that can be construed as investments in the future. For example, research and development expenses,

✓ Third, the asset base must reflect the replacement value of the capital and must not be affected by goodwill write-offs, asset write-offs, or a highly depreciated fixed asset base whose book values do not reflect replacement or market value, etc. The idea is to ensure that the capital base used to
calculate the capital charge reflects the true underlying capital being used in the business.

✓ Fourth, and most important, all adjustments must be material, transparent, and have an impact on managerial decision making.

❖ Economic Value Added (EVA):

EVA is trademarked measure of shareholder value indicating the wealth of shareholders. It is based on the concept that earning a return greater than the cost of capital increases value (of a company), and lesser earnings destroy value. It is calculated as:

\[
\text{Economic Value Added} = [\text{NOPAT} - (\text{Invested Capital} \times \text{WACC})].
\]

Where,

\(\text{NOPAT} = \text{Net operating cash profits of the company after taxes but before any Interest expenditure},\)

\(\text{WACC} = \text{weighted average cost of capital of the company.}\)

\(\text{Invested capital} = \text{the economic capital invested in the business includes both equity and debt but does not include non-interest bearing current liabilities.}\)

Weighted average cost of capital (WACC) is calculated as:

\[
\text{WACC} = [\text{Cost of Equity} \times \text{Proportion of equity from capital} + \text{Cost of debt} \times \text{Proportion of debt from capital} \times (1 - \text{tax rate})].
\]

A company can increase its EVA in the following ways.

✓ Increasing NOPAT by increasing operating income

✓ Reducing the capital charge by reducing the company's capital and cost of capital
**Economic Profit (EP)**

Economic Profit (EP) is another way to determine shareholder value. It is also called “residual income” and is used as a means of measuring divisional performance (Starovic et al. 2004). The concept of EP has been around for a long time and was first reported by Alfred Marshall in the 1890’s. EP describes the surplus cash earned by a business in a period after the deduction of all expenses, including the cost of using investor's capital in the business (Starovic et al. 2004). The accounting profit does not take into consideration the cost of capital as EP does. Economic Profit is the difference between the return made on capital and the cost of capital. The calculation of EP can be done in two ways:

\[ EP = \text{Invested Capital} \times (\text{return on capital} - \text{WACC}) \]

or

\[ EP = \text{Operating profits after tax less a capital charge.} \]

In the first equation WACC represents the cost of capital calculated as the weighted average cost of capital.

**The Equity Spread**

Another measure of shareholder-value creation is the one proposed by Marakon Associates the equity spread. This measure considers the difference between the ROE and required return on equity (cost of equity) as the source of value creation. Instead of using capital as the entire base and the cost of capital for calculating the capital charge, this measure uses equity capital and the cost of equity to calculate the capital (equity) charge. Correspondingly, it uses economic value to equity holders (net of interest charges) rather than total firm value. For an all equity firm, both EV and the equity spread method will provide identical values because there are no
interest charges and debt capital to consider. Even for a firm that relies on some debt, the two measures will lead to identical insights provided there are no extraordinary gains and losses, the capital structure is stable, and a proper re-estimation of the cost of equity and debt is conducted. A market is attractive only if the equity spread and economic profit earned by the average competitor are positive. To calculate the equity spread, requires that net income (instead of NOPAT) be compared to the cost of equity. Using the value of equity capital (instead of capital employed), another measure of value creation can be calculated. Mathematically, the equity spread is expressed as:

\[
\text{Equity value creation} = (\text{return on equity} \% - \text{cost of equity} \%) \times \text{equity capital}
\]

- **Implied Value**

The implied value measure was popularized by the Alcar Group and is similar to discounted future market value (DFMV) proposed by the Strategic Planning Institute. In this framework, the emphasis is not on annual performance but on valuing expected performance. The implied value measure is akin to valuing the firm based on its future cash flows and is the method most closely related to the DCF/ NPV framework. With this approach, one estimates future cash flows of the firm over a reasonable horizon, assigns a continuing (terminal) value at the end of the horizon, estimates the cost of capital, and then estimates the value of the firm by calculating the present value of these estimated cash flows. This method of valuing the firm is identical to that followed in calculating NPV in a capital budgeting context. Since the computation arrives at the value of the firm, the implied value of the firm's equity can be determined by subtracting the value of the current debt from
the estimated value of the firm. This value is the implied value of the equity of the firm. To estimate whether the firm's management has created shareholder value, one subtracts the implied value at the beginning of the year from the value estimated at the end of the year, adjusting for any dividends paid during the year. If this difference is positive (i.e., the estimated value of the equity has increased during the year) management can be said to have created shareholder value. Value is created if management's decisions generate cash flows over and above the cost of capital and the firm is able to sustain this performance over a long time period. The implied value measure requires that forecasts about the future be made by creating proforma of income statements and balance sheets over a reasonable time period.

**Cash Flow Return on Investment (CFROI)**

Cash Flow Return on Investments, or CFROI, is a measure of Company performance developed and trademarked by Holt Value and Associates. It is based on the assumption that a company can be modelled as a project that generates cash over the useful life of its underlying assets and investments. Many investors are of the opinion that a company is of little use to them unless it has the capacity to produce cash. These supporters of cash flow measurement and analysis claim that it makes company managers think more like shareholders because it concentrates their attention on the actual value of the company. One method of measuring and analysing company cash flow is the approach followed by the Boston Consulting Group and Braxton Associates called CFROI (cash flow return on investment). CFROI represents the sustainable cash flow a business generates as a percentage of the cash invested in the business. This cash flow on cash invested can be expressed as an internal rate of return (IRR) over the normal
economic life of the assets involved. The difference between this return and the cost of capital reflects the firm’s value creation potential (the more positive the spread, the higher the potential). The changes in the CFROI across years can then be used as an indicator of the firm’s annual performance. The appeal of CFROI and other metrics that focus on cash generation is that they help managers get a clear picture of a business unit’s capital efficiency. Unlike traditional accounting measures such as return on assets, for example, CFROI looks at the true cash amounts invested. Calculating CFROI requires: converting accounting data (income statement and balance sheet) into cash in current currency units, calculating cash flows in current currency units (accounting for inflation adjustments on monetary or near-monetary assets such as inventories), estimating the normal life of the assets, calculating the value of the non-depreciating assets at the end of the horizon, and then calculating the internal rate of return. The difference between this return and the real cost of capital is termed the CFROI Spread; a positive spread reflects a positive expected value creation performance. In essence, CFROI is a “real” rate of return measure, which identifies the relationship of cash generated to cash invested by a business (Starovic et al. 2004). The argument is that it is a measure free from potential accounting distortions relating to issues such as inflation and variation in asset ages.

**Shareholder Value Added (SVA)**

Shareholder value added is a measure that is similar to the DCF method of arriving at shareholder value. The DCF method arrives at the economic value resulting from the forecasted scenario while shareholder value added measures the change in value over the forecast period. It is calculated as (Rappaport, 2001):
$SVA = \text{Cumulative present value of cash flows + Present value of liquidation at the end of forecast period} - \text{current liquidation value}$.

**Cash Value Added (CVA)**

Cash Value added is a Net Present Value that categorises periodically the Net present Value calculation and classifies the investment in two categories: Strategic and Non-Strategic investments. Strategic Investments are those, whose objectives are the ones made to create new value for shareholders, such as expansion; while nonstrategic investments are the ones made to maintain the value strategic investments create. Strategic investments – e.g. investments in new products, in new markets – are followed by several non-strategic investments. A strategic investment can be a tangible or an intangible asset. What is believed to be a value creating cash outlay can be defined as a Strategic investment (Weissenrieder, 1997). Cash value added is defined by the difference between operating cash flow (OCF) and operating cash flow demand (OCFD). Operating cash flow is EBIT, working capital movement and strategic investments. Working capital movement here is calculated using the following formula: $\Delta$ (Receivables – liabilities + stock + cash). The OCFD is calculated as the cash flow equal amount in real terms every year, that discounted using the Proper capital cost will give the investment a Net Present Value of zero over the Strategic Investment’s economic life. The OCFD is a real annuity but adjusted for actual annual inflation. Operationally, it can be calculated as:

\[ CVA = \text{Cash flows of operating activities} - \text{taxes} - (\text{interest} + \text{dividend}). \]
(b) Wealth-Creation Measures

Wealth-creation measures based entirely on the stock market and do not require any analysis of the firm’s financial statements for calculating value-creation performance. Thus, they are primarily applicable to exchange-listed firms and are not useful for individual subsidiaries within the firm or for privately held firms. The price of a common share of any firm is determined through the market’s expectations about the firm’s (expected) value creation abilities. The higher the potential, the higher will be the share price relative to the capital invested. Thus, a measure of the firm’s managerial performance can be gauged by the rate of return earned by shareholders from their investment in the shares of the firm. Since changes in share price reflect the changes in investor expectations about future performance, these changes can be used as a proxy for the annual value-creation performance. Two wealth-creation measures considered are:

✓ Total Shareholder Return

✓ Annual Economic Return.

❖ Total Shareholder Return (TSR)

A useful summary measure for estimating the annual wealth-creation performance is the total shareholder returns (TSR) concept that shows the relative wealth creation of firms within a homogenous group. This return is simply the rate of return earned by a shareholder through a combination of price changes and dividends received. The TSR measure allows managers to make appropriate trade-offs among profitability, growth, and free-cash flows and to measure a unit’s contribution to the overall company capital gain and dividend yield to investors. Because it is possible that this return may be
affected by overall capital market conditions rather than any specific decisions made by management, TSR typically is compared on a risk-adjusted basis with a peer group and/or a widely used benchmark for evaluating relative performance. If the relative performance is positive, it can be concluded that the capital market has responded favourably to managerial decisions made in that year, and, in turn, management has created shareholder value. This measure is based entirely on the market’s perceptions about a firm’s future performance. Companies generating high returns on their invested capital (i.e., ROIs above investor’s required rate of return) achieve stock-price increases when they are able to invest more capital at these high ROIs. An alternative strategy is exemplified by companies that increase their return on invested capital, which also drives relatively superior TSRs for their shareholders through capital gains performance. The third driver of a relatively superior TSR is free-cash flow. The annual TSR is calculated as the change in price plus any dividends by the initial price. Mathematically, TSR can be expressed as:

$$\text{TSR}_{t+1} = \frac{(\text{Price}_{t+1} + \text{dividends}_{t+1} - \text{Price}_t)}{\text{Price}_t}$$

- Annual Economic Return (AER)

Another wealth-creation measure is the Annual Economic Return (AER). The AER explicitly accounts for dividends and externally raised capital as well as the timing of these decisions to calculate a firm’s annual wealth-creation performance. The AER method requires an estimation of the shareholder’s alternative investment rate, which, in theory, is the cost of equity capital corresponding to the riskiness of the firm. The main benefits of the AER measure over the TSR measure are that it accounts for the amount and timing of dividends and external capital raised and also for the differences in
opportunity costs across firms. Calculation of AER requires accounting for dividends paid as well as new equity raised during the year. It also requires an estimate of the opportunity cost of funds. Ideally, this opportunity cost is the cost of equity. AER is calculated as a return by the firm after adjusting for dividends paid and external dividends paid and external capital raised. Mathematically, AER can be expressed as:

$$\text{AER} = \left( \frac{\text{MV}_{t+1} - \text{ER}_{t+1} + \text{Div}_{t+1}}{\text{MV}_t} \right) - 1$$

Where $\text{ER}_{t+1}$ and $\text{Div}_{t+1}$ represent value of external equity raised and dividends paid during these years invested at the investor's opportunity cost, and $\text{MV}_{t+1}$ and $\text{MV}_t$ represent the market value of firm's equity at years $t+1$ and year $t$, compounded at the T-bill rate, respectively. The investor's opportunity cost of capital is the corresponding cost of equity for that firm. If this return is positive, then management has created wealth, since it has done better than what the investors could have done.

(c) Hybrid Value/Wealth-creation Measures.

Hybrid value/wealth-creation measures require information from both the financial statements and the stock market. In essence, these measures evaluate a firm's performance by comparing the market value of the firm (equity) with the invested capital (equity). By comparing a company's current value with the capital that has been invested in the company since its formation, the investment community can tell if a firm is creating wealth or wasting/destroying it. The difference between the market value of the firm (equity) and the adjusted capital (equity) can be thought of as a crude proxy for the net wealth creation by a firm's management. The most common hybrid value/wealth creation measure is market value added.
Market Value Added (MVA)

Market Value Added (MVA) is a measure of shareholder wealth popularised by Stern Stewart &Co. MVA requires adjusting all capital (debt and equity) and reflects capital market expectations about the firm’s future value-creation performance. The value of capital can be adjusted to ensure that it reflects the cumulative capital invested by the firm's capital providers. Management's value-creation performance in a particular period can be estimated by calculating the annual change in these two performance measures. This annual wealth-creation performance is simply the incremental wealth created by management for its shareholders over a specific time period. MVA is calculated as follows:

\[ MVA = [\text{Market Value of Capital Employed Including Debt and Equity} - \text{Invested Capital}] \]

It measures the value which the market perceives the company has created and has the potential to create. It is an absolute measure of shareholder wealth. The higher MVA indicates better performance of the company. For investors, a crucial insight that MVA offers is to beware of companies that pursue growth for growth's sake. Unless the capital employed to generate earnings produces more wealth than it costs, MVA tends to stagnate and investors achieve no gain. When comparing the performance of firms with one another using this measure, it is necessary to adjust for the differences in the size of the firms. This can be done by dividing the change in MVA by the adjusted value of equity (capital) at the end of the previous year of each firm. The value of capital (equity) invested is properly estimated with all the necessary adjustments for a variety of accounting treatments made to the traditional balance sheet. A change in these measures, which
represents the dollar value of wealth creation performance, in year t, can be written as:

\[(\text{MVA}_t) = \text{MVA}_t - \text{MVA}_{t-1}\]

The standardized MVA values are calculated by dividing MVA in year by the adjusted equity value at year t-1, or:

\[
\frac{\text{Standardized MVA}_t}{\text{Adjusted equity}_{t-1}} = \frac{(\text{MVA}_t - \text{MVA}_{t-1})}{\text{Adjusted equity}_{t-1}}
\]

These standardized values can be used to provide a performance ranking of firms relative to their peers.

4.5 LINKAGE BETWEEN VALUE- AND WEALTH-CREATION MEASURES

Because stock prices reflect capital market expectations about the firm's long-term value creation performance, it is not necessary that there be a one-to-one correspondence between current value-creation performance and wealth creation performance as reflected through changes in stock price.

**Chart-4.5 Linkage between Value and Wealth Creation Measures**

<table>
<thead>
<tr>
<th>Wealth Creation</th>
<th>Current Economic Value Creation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>LOW</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
</tr>
<tr>
<td>LOW</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>LOW</td>
</tr>
</tbody>
</table>

The Chart: 4.5 above shows that there are four possibilities. The vast majority of firms will be found in the low and high-high quadrants. However, even if firms are located in the other two quadrants, it is reasonable to assume that their positions there are transient. In these situations, investors are looking beyond existing EV and making an assessment that current EV will soon change to reflect longer-term market trends. All three categories of measures can capture the essence of management’s value-creation performance on an annual basis. The value-creation measures reflect the periodic operational performance of management, whereas the wealth creation measures reflect the periodic change in investor wealth arising from changes in the market’s expectations due to management’s decisions during that period. High MVA shows that a high expected value-creating performance is being rewarded by a higher market value of the firm. However, in all cases these measures quantify performance but do not create performance.

In conclusion, while all the above measures are used to measure shareholder wealth, the Holding period return, HPY measure the actual returns of an investment made in the security for the specified period, taking into account interim cash returns to shareholder. Other measures, like PE, MB ratio, MVA measure the wealth created by a company over the years and also the perception of the future wealth creation potential of the company (by the investors) for its shareholders. This is because these measures use the book value of capital invested which quantifies all the investments made by the shareholders in the company till date and market price of share which is a reflection of expectations of the investors about the future performance potential of the company and the value of intangibles.

4.6 BASIC SHAREHOLDER VALUE MODEL

A most common measure of the shareholder value creation is the comparison between the market value and book value per share. When the market value exceeds the book value, the shareholder value is created
and when the book value exceeds the market value, the shareholder value is destroyed.

A simple valuation model that can be used to make predictions about the relationship between profitability and growth and shareholder value is the constant-growth model. The market value of a share \( M \) is given as follows (Brealey & Myers, 2003):

\[
M = \frac{DPS}{K_e - g} = \frac{EPS (1 - b)}{K_e - g}
\]

This model assumes that dividends grow at a constant rate in perpetuity. Dividend per share (DPS) is equal to earnings per share (EPS) multiplied by one minus retention ratio (b). EPS depends on the firm’s return on equity (ROE) and the equity investment, expressed as book value of per equity share (B). Eq. (1) can be rewritten as follows:

\[
M = \frac{B \times ROE (1 - b)}{K_e - g} = \frac{B(ROE - b \times ROE)}{K_e - g}
\]

\[
M = \frac{ROE - g}{K_e - g}
\]

Eq. (2) implies that shareholder value will be created when market-to-book (M/B) ratio is greater than 1, and value will be destroyed if it is less than 1. We may further rewrite Eq. (2) as follows Varaiya et al., 1987):

\[
\frac{M}{B} = 1 + \frac{ROE - K_e}{K_e - g}
\]

Eq. (3) indicates that M/B will be greater than 1 if ROE exceeds ke; that is, the spread, ROE – ke, is positive. Both Eq. (2) and (3) assume that in equilibrium ke is greater than g. However, this is not a necessary condition to empirically test the effect of g on M/B ratio. The cost of equity is the risk-adjusted return that shareholders require on their investment. Hence, a firm will be creating value for its shareholders when it undertakes investments that generate positive spread; which is, return
on equity exceeding the cost of equity (ROE > ke). It should be clear from this reasoning that a positive ROE alone is not enough for creating shareholder value. A number of firms providing positive ROE may in reality be destroying value if their cost of equity exceeds ROE. The approach of focusing on the spread considers the quality of earnings – earnings after adjusting for the risk-adjusted cost of equity.

Many researchers have argued that the appropriate measure of a firm's profitability is the spread between ROE and ke, which may be referred to as economic profitability (Hax & Majluf, 1984). We may notice from Eq. (3) that growth resulting from earnings reinvestment may affect shareholder value depending on whether ROE is greater than or lower than ke. Thus, an interaction between profitability and growth is indicated.

4.7 RESEARCH PROFILE

Based on the review of the literature on shareholder value creation in banks and the research gap identified thereby, it is found necessary to explore the Indian Banking Sector as regards its shareholder value drivers. For this purpose, Five major research objectives are framed which help identify the major determinants of shareholder value creation for Indian Banks based upon the categorisation of the shareholder value creation measures as presented in Chart-4.2. This study is relying mainly upon the models developed by various researchers viz. Mehari (2000), Pandey (2005), Asogwa (2009), Salehi (2011), Bhunia (2012), Kolawole (2013), Panigrahi (2014). The detailed description and analysis of all these models and their results obtained thereby are elaborated in Chapter-6. The next (Chapter-5) describes the overview of the Indian Banking Sector and profile of the selected sample banks.
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