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Reliability and Comparability of Fair Value Measurements – An Analytical Study of Equity Investments of the Selected Indian Companies using Disclosure Index

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Abstract : Ensuring reliability and comparability of fair value measurements is challenging. To overcome the challenge of improving reliability and comparability, and also to provide a conceptual basis for measurement of fair value of an asset or liability, the international standard setting bodies Financial Accounting Standards Board (FASB), and the International Accounting Standards Board (IASB) prescribed the accounting standards, Accounting Standard Code (ASC) 820, Fair Value Measurement by FASB, and the International Financial Reporting Standard (IFRS) 13, Fair Value Measurement. On the similar lines, the Institute of Chartered Accountants of India (ICAI) also prescribed an accounting standard, Indian Accounting Standard (Ind AS) 113, Fair Value Measurement. To solve the measurement challenges and to ensure reliability and comparability of the fair value information a framework in the form of fair value hierarchy has been commonly proposed in all the above three accounting standards. However, the reliability and comparability of the fair value remains varied depending on the level of inputs applicable under the fair value hierarchy.

Going above each level of fair value hierarchy, the complexity of fair value measurement increases, and the reliability decreases. And therefore to ensure reliability and comparability of the fair value information, sufficient disclosures have to be provided under each level of fair value hierarchy. In comparison with level 1 and level 2 inputs, the level 3 inputs requires additional information in the form of additional disclosures.

In the present study using a disclosure index, Fair Value Accounting and Reporting (FVAR) index the process of fair value accounting and reporting for the equity investments has been quantified and evaluated for the selected set of companies from the NIFTY50 of National Stock Exchange (NSE) in India. It was observed that the fair value accounting and reporting process is not similar and is varied in terms of complexity in valuation and reporting for the Equity Investments across different organizations from different industries.

The evidences also indicates the difficulty of ensuring reliability and comparability of fair value information for equity investments with the increase in the level of fair value hierarchy. Especially for unquoted level 3 measurements. Hence there was need to focus on providing sufficient disclosures for level 3 measurements to ensure the reliability and comparability of fair value measurements.

IndexTerms **- Ind AS 113, Fair Value Measurement, Fair Value Hierarchy, Level 1 Inputs, Level 2 Inputs, Level 3 Inputs, Reliability, Comparability, Disclosure Index.**

1. INTRODUCTION

The fair value basis of measurement has been criticized for increasing volatility in the financial reporting and for lack of reliability of fair value measurements developed based on hypothetical open market assumptions **(Escaffre, et.al, 2008)**. The process of fair value measurements can be defined subjectively in each individual Indian Accounting Standards (Ind AS) and objectively through the application of Ind AS 113, Fair Value Measurement. The selection and application of any measurement basis specified as per the Framework for the Preparation and Presentation of Financial Statements, should be understandable, relevant, reliable and comparable (ICAI Conceptual Framework for Financial Reporting under Indian Accounting Standards (Ind AS), 2020).

The fair value basis of measurement gained popularity as result of limitations of historical cost-based accounting. One of the differentiating factors of both fair value basis of measurement and historical cost basis of measurement is the reliability and relevance of the financial information. The historical cost-based accounting can be considered to be a reliable measure to ensure faithful representation of financial information, the fair value basis of measurement is consider to provide relevant financial information to meet future oriented decision making requirements of the primary users of the financial statement, however ensuring the reliability of the fair value measurements is challenging **(Rahmawati, E. 2006)**.

One of the suggestions advised for the improvement of reliability and comparability of fair value measurements is to provide sufficient disclosures **(D'souza, D., & Ashutosh, P., 2018)**. The empirical evidences shows that the fair value measurements can provide relevant financial information. However, there was gap in evaluating the reliability and comparability of the fair value measurements. Therefore the objective current paper is to devise a measure to evaluate and analyze the reliability and comparability of fair value measurements using Disclosure Index as proposed by **Hossain, M. A. (2002) and Matis, D., et.al (2013)**

2. LITERATURE REVIEW

Fornaro, J. M., & Barbera, A. T. (2007) examined the key features of fair value hierarchy and assessed its impact on the decision-usefulness of the financial information. The fair value hierarchy provides guidelines in selecting the inputs for the measuring fair value of asset or liability as per the classification given under the fair value hierarchy. By following guidelines given under fair value hierarchy and by providing additional disclosures the reliability, consistency and comparability of the financial information can be improved.

Further the authors concludes that the fair value hierarchy can also fulfill the objective of Financial Accounting Standards Board (FASB) enabling different stakeholders to take informed business decisions.

Diana, C. I. (2015), the fair value of an asset or liability should be measured based on the perspectives of the market participants assumptions in the open market, and hence it is considered as the exist price or value of an asset or liability. The measurement of fair value of an asset or liability is based on the hypothetical market assumptions and principles, and therefore, the investors are in need of transparent, reliable and relevant financial information enabling them to understand the present and future prospects of investing in a company.

McDonough, R. P., & Shakespeare, C. M. (2015) from an analysis of role of risk management technologies in the process of fair value evaluation given by Bhat and Ryan (2015), it has been concluded that there was need to explore different ways of measuring the fair valuation process and to identify various factors that would affect the fair value measurement process. Thus the focus should be on ensuring the reliability and usefulness of fair value measurements through a systematic quantifiable valuation process.

Lin, Y. H. et.al (2017) from an analysis of the accounting restatements in association with the different levels of fair value hierarchy as given under Statement of Financial Accounting Standard (SFAS) 157, it has been understand that higher usage of level 3 inputs in measuring fair value of financial assets can subsequently affect the restatements of financial statements.

The restatements are also affected as a result of errors and manipulations in the valuation process. Therefore, it has been concluded that increased usage of unreliable level 3 inputs can reduce the quality of financial reporting

Ghio, A., et.al (2018) from an analysis of the practical implications of implementing International Financial Reporting Standard (IFRS) 13 and Statement of Financial Accounting Standard (SFAS) 157, it has been concluded that usually fair value estimates are found to be value relevant. Given the discretion of the management, the fair value measurements can be affected by the subjective bias of the managers towards fulfilling their objectives.

Due to subjective assessment of fair value measurements, the management sometimes did not follow the relative order of fair value measurement inputs under fair value hierarchy. Various other factors that would affect the fair value measurement process are the nature and marketability of the underlying assets, managerial discretion, market factors and the institutional and regulatory environment.

3. RESEARCH GAP

From an analysis of the above literature it can be concluded that the quantification of fair value accounting and reporting process process and the factors affecting the fair value measurement process was found to be essential.

The fair value measurement process is a complex and as well as challenging. Hence there was need to devise measures to quantify the process of fair value accounting and reporting. The present paper is an attempt towards meeting the objective of quantifying the fair value accounting and reporting process for equity investments in the Indian context. Accordingly the following research objectives were formulated.

4. RESEARCH OBJECTIVES

- To quantify the process of fair value accounting and reporting for the equity investments
- To analyze the process of fair value accounting and reporting for equity investments
- To interpret the reliability and comparability of the fair value measurement of equity investments

5. RESEARCH METHODOLOGY

The nature of the study is quantitative and analytical in nature. It is based on the secondary data collected in the form of annual reports. To measure the reliability and comparability a measure called Fair Value Accounting and Reporting (FVAR) index has been constructed based on the Disclosure Index model given by **Hossain, M. A. (2002) and Matis, D., et.al (2013).** The components included in the FVAR index for the equity investments were developed based on the guidelines given under Ind AS 32 (Financial Instruments Presentation), Ind AS 109 (Financial Instruments-Recognition and Measurement), Ind AS 107 (Financial Instruments-Disclosures) and the Ind AS 113 (Fair Value Measurement).

The ordering of the components in the FVAR index was defined based on the guidelines given by **James, P.C. (2012)** in his book titled **"The Professional's Guide to Fair Value: The Future of Financial Reporting"**. A disclosure index can be calculated as an average of disclosures and non-disclosures to the actual number of disclosures to be given for an accounting element (equity investments in the present study). An accounting element can be an asset, liability, equity, income and revenues as per the ICAI Conceptual Framework.

For the presence of a disclosure for an accounting element in the financial reporting one point can be given and for the absence of the disclosure zero point can be given. A disclosure index can be weighted or unweighted index. A weighted index can be calculated by assigning weights to each disclosure based on subjective or objective judgement of the researcher. An unweighted index can be calculated by giving equal weightage to each component of the Disclosure Index. An unweighted index is unbiased in nature.

The FVAR Index is calculated as an unweighted disclosure index giving equal weightage to all the components of the Fair Value Accounting and Reporting process. Accordingly, an FVAR index can be constructed for the selected sample of companies from the NIFTY50 of National Stock Exchange (NSE) and can be evaluated for reliability and comparability of the fair value measurements of equity investments as per the evaluation criteria defined by the researcher. The disclosure index can be calculated using the following formula given by **Hossain, M. A. (2002) and Matis, D., et.al (2013).**

$$D_I = \frac{\sum_{i=1}^{m} d_i}{\sum_{i=1}^{n} d_i}, \quad unde\ D_I \in [0,1]$$

Where:
D_I = Disclosure index,
d_i = 1 if information was provided and 0 otherwise,
m = number of items effectively disclosed,
n = maximum number of disclosure items possible

6. SAMPLE SELECTION

The population for the evaluation of fair value accounting and reporting process constitutes the listing companies on the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). For the purpose of the study the companies listed on the NIFTY50 of NSE are considered. It is mandatory for all listing companies on the National Stock Exchange and Bombay Stock Exchange to follow the IFRS based Indian Accounting Standards (Ind AS) starting from the financial year 2016-17. Excluding the banking, insurance and other financial services companies, the Ind ASs are applicable to all the companies listed on NIFTY 50[1]. After excluding the banking, insurance and other financial services from the NIFTY 50, the sample size constitutes 38 companies. All the 38 companies are sorted in the descending order of the market capitalization during the month of September, 2022.

After arranging all the listed companies in the descending order of the market capitalization, the top four companies are selected sequentially one from each industry. The sample size is considered to be 10% of the total population size i.e. 3.8 (4 approx.). The following four sample companies have been selected for the purpose of the study.

1. Reliance Industries Limited
2. Infosys Limited
3. Larsen and Toubro Limited
4. Sun Pharmaceutical Industries Limited

The sample indicates randomness representing one company from one industry, the diversity in the industry is one of the essential characteristic in evaluating the reliability and comparability of the fair value measurements. Each company is represented each from a Indian multinational business conglomerate (Reliance Industries Limited leading in the energy sector and other businesses), Information Technology (Infosys Limited), Indian Multinational business (Larsen and Toubro Limited leading in the construction sector and other businesses), and Pharma Industry (Sun Pharmaceutical Industries Limited). Due subjectivity in the fair value accounting and reporting process, the measurement of similar assets or liabilities cannot similar for the companies operating in the same industry and hence an analysis from the perspective of diversified industries can give unbiased estimate of the reliability and comparability of the fair value measurement for the equity investments.

7. IND AS 113-FAIR VALUE MEASUREMENT

To solve the problem of lack of proper conceptual basis for the measurement of fair value of asset or liability, the international standard setting bodies the Financial Accounting Standards Board (FASB) and

[1] It is a weighted index calculated based on the market capitalization of the 50 largest companies in India. It is considered as a benchmark in evaluating the stock market performance of the listed companies. It is popularly called NSESENSEX

International Accounting Standards Board (IASB) worked on a joint project to develop a conceptual basis for the measurement of fair value of an asset or liability. Prior to associating with IASB, the FASB has already developed a conceptual framework for the measurement fair value of an asset or liability by prescribing Accounting Standard Code (ASC) 820, Fair Value Measurement. After working with IASB for some time, due to philosophical and operational issues, the FASB dropped from the project of developing an unified common conceptual framework for the fair value basis of measurement. However, the IASB went ahead and proposed IFRS 13, Fair Value Measurement, that is applicable to member countries of IASB. Despite shelving the project, both IFRS 13, Fair Value Measurement and ASC, 820 Fair Value Measurement are considered to be similar in their context and application.

The Institute of Chartered Accountants of India (ICAI) being a founding member of IASB, also developed an accounting standard similar to IFRS 13, Fair Value Measurement relevant in the Indian context. The Ind AS 113, Fair Value Measurement excluding some terminology related changes looks similar to IFRS 13. Therefore, the Ind AS 113, Fair Value Measurement can be considered to be developed in the context of global valuation scenario.

Unlike the other measurement bases prescribed in the conceptual framework for the preparation and presentation of the financial statements, the fair value basis of measurement is based on hypothetical open market transactions, if the relevant and reliable markets are not available for the measurement market value of an asset or liability, they can be measured based on hypothetical open market transactions **(Diana, C. I., 2015)**.

Hence the measurability and reliability of fair value measurements is considered to be complex and challenging. To overcome the challenges of measurability and reliability the Ind AS 113, Fair Value Measurement provided guidelines and a framework in the form of a fair value hierarchy. The fair value hierarchy can enable to classify the inputs as level 1 (directly observable inputs), level 2 (indirectly observable inputs) and level 3 (not observable and should be based on hypothetical market factors). Based on the level of inputs appropriate valuation technique can be selected for the measurement of fair value of an asset or liability. To substantiate the quality of fair value measurements, sufficient disclosures can be given in the form of notes to the individual accounts or in the form schedules to the financial statements.

The meaning and definition of fair value of an asset or liability can be interpreted subjectively based on the context specified in the individual accounting standard or objectively interpreted based on the meaning and definition given under Ind AS 113, Fair Value Measurement. The Ind AS 113, Fair Value Measurement provides guidelines for the identification of different levels of inputs for various types of financial assets and liabilities and also provides guidelines for the selection and application of an appropriate valuation technique for the measurement of fair value of a financial asset or liability.

The Ind AS 113, Fair Value Measurement also provides guidelines for the measurement of fair value of a non-financial asset or liability. As per the definition given under Ind AS 113, Fair Value Measurement, the fair value of an asset or liability can be determined based on the assumption of engaging in an orderly business transaction allowing sufficient time for creating a market for an asset or liability, and to determine a price or value of an asset or liability based on the marketability in the hypothetical markets, such a saleable or transferable price or value of an asset or liability can be considered to be the fair value of the asset or liability.

The process of determining fair value of a financial and non-financial asset or liability is different for different types of assets and liabilities and it may be different for the same asset or liability measured by different companies operating in different industries or in the same industry.

Hence the process of fair value accounting and reporting is considered to be complex, affecting the reliability and comparability of the fair value measurements.

8. FAIR VALUE ACCOUNTING AND REPORTING (FVAR) INDEX

The reliability and comparability of the fair value information can be improved by providing sufficient disclosures **(D'souza, D., & Ashutosh, P., 2018)**. Therefore measuring the quality of the disclosures can be considered to be one of the metric in determining the qualitative characteristics of the financial information. Depending on the nature and type of the accounting element (Income, expenses, assets, liabilities and equity) to ensure reliability and comparability of the financial information, sufficient disclosures to be provided in the form notes to the accounts and schedules to the financial statements.

Though the fair value measurements are applicable for both financial and non-financial assets and liabilities, the fair value measurements gained more popularity in valuing financial assets and liabilities. And among all forms of financial assets, the equity investments held as a part of short-term liquidity management or long-term investment management strategy are the common form of financial instruments held by the companies for which the process of fair value measurement is widely applicable.

Hence there is a scope for the analysis of fair value accounting and reporting process for the equity investments among the selected set of Indian companies which can enable to evaluate the reliability and comparability of the fair value measurements of equity investments. The components of Fair Value Accounting and Reporting for Equity investments are determined referring to the guidelines given under Ind AS 32 (Financial Instruments Presentation), Ind AS 109 (Financial Instruments-Recognition and Measurement), Ind AS 107 (Financial Instruments-Disclosures) and the Ind AS 113 (Fair Value Measurement).

The ordering of the components is determined based on the steps given by **James, P.C. (2012)** in his book titled **"The Professional's Guide to Fair Value: The Future of Financial Reporting".** The sequencing of the components are in the order of determining the unit of account i.e. the concerned accounting element can be identifiable in the financial reporting, ita valuation premise weather it has been evaluated on standalone basis or consolidated basis. The identification of the markets (principle market, most advantageous market or no market) for the determination of fair value of the accounting element. The rationale for the selection and application of an appropriate valuation technique to determine the fair value estimates of the accounting element. Accordingly, the components of Fair Value Accounting and Reporting (FVAR) Index are given in the Table-I for the Equity Investments.

Table-8.1
Components of Fair Value Accounting and Reporting Index for Equity Investments

S.No	FVAR Index Component	Component Code
1.	Determination of Unit of Account	C1
2.	Determination of Valuation Premise	C2
3.	Classification under FVTOCI/FVTPL	C3
4.	Identification of Principle Market/Most Advantageous Market/Unobservable Market	C4
5.	Classification under Fair Value Hierarchy	C5
6.	Determination of Level 1 inputs (If applicable)	C6
7.	Determination of Level 2 inputs (If applicable)	C7
8.	Determination of Level 3 inputs (If applicable)	C8
9.	Description of Valuation techniques using level 2 inputs (If applicable)	C9
10.	Description of Valuation techniques using level 3 inputs (If applicable)	C10
11.	Reclassification details of fair value measurements of financial assets (If applicable)	C11
12.	Reconciliation of Level 3 Inputs (If applicable)	C12
13.	Sensitivity Analysis for Level 3 Inputs (If applicable)	C13
14.	Additional Qualitative and Quantitative Information (If applicable)	C14

The basic criteria to be considered to ensure the reliability of fair value measurements of equity investments is to attain a minimum of six points. The equity investments must fulfill the first six components in the above Table-I to attain the basic criteria of reliability. Depending on the level of inputs used in the fair valuation process, additional components can be included in the FVAR index and hence the reliability changes depending on the nature of inputs used in the valuation process.

If level 1 inputs are used, the maximum criteria is eight points *(one additional point if there is reclassification in the fair value hierarchy under C11, and one additional point for any additional information (optional) given under C14)*. If level 2 inputs are used, the maximum criteria is nine points *(one additional point if there is reclassification in the fair value hierarchy under C11 and one additional for any additional information (optional) given under C14)* and if level 3 inputs are used, the maximum criteria is eleven points *(one additional point if there is reclassification in the fair value hierarchy under C11 and one additional for any additional information (optional) given under C14).* As already discussed the use of level 3 inputs demands for more number of disclosures and hence the usage of level 3 inputs demands for more information. Therefore in addition to fulfilling the basic criteria of six points, depending on level of inputs used in the valuation process, the maximum criteria remains varied. Depending the subjective assessment and judgement of the researcher, each component can be assigned a value ranging in between one to zero. If the information for each component is considered to be complete one point (1) is assigned, if the information for each is considered to be satisfactory then value in between zero to one can be given in the form of decimal value (0.1 to 0.9) as per the subjective assessment of the researcher. If the information for each is not available then zero (0) is assigned to the component. In addition to fulfillment of C1 to C6 for level 1 inputs depending on the necessity C14 can also be applicable. In addition to fulfillment of C1 to C5, and C7 for level 2 inputs, depending on the necessity C9, C11 and C14 are also applicable. In addition to fulfillment of C1 to C5 and C8 for level 3 inputs, depending on the necessity C10 to C14 are also applicable.

If any component is not applicable in the fair value accounting and reporting process it is represented as NA in the index calculation process indicating that is Not Applicable (NA).

9. FVAR INDEX OF THE SELECTED INDIAN COMPANIES

9.1 Reliance Industries Limited (RIL)

The equity investments at RIL are classified as quoted and unquoted and are measured at amortized cost, Fair Value through Profit and Loss (FVTPL) account and Fair Value Through Other Comprehensive Income (FVTOCI). Further all categories of the equity investments are broadly classified under level 1, level 2 and level 3 of fair value hierarchy. Therefore at RIL the FVAR index comprised all the components, excluding C11, as there are no reclassifications done during the year. Therefore the FVAR index at RIL has been comprised of a total of 13 points. Considering some of the equity investments are quoted, the determination of inputs for level 1 measurements are considered to be based on directly observable market inputs, and hence one point has been assigned for C6.

However, the determination of inputs for level 2 and level 3 measurements are not substantially provided, and hence C7 and C8 were given only 0.1 rating. There was no any description or information regarding any valuation technique used under level 2 measurements and hence zero point has been assigned for C9, some minimal information has been given regarding description for valuation techniques used for level 3 measurements, and hence 0.1 has been assigned for C10.

As far as reconciliation and sensitivity analysis of level 3 measurements are concerned no information was given during the first three years of current study period (2017-20). However subsequently some information was given for reconciliation of level 3 inputs from the second year (2018-19) and sensitivity analysis information for the last two years under the study period (2020-22). This can be considered as an improvement in the process of improving the reliability of the fair value information. However, the information has not substantial and hence they were given 0.1 rating for C12 and C13. Also no additional information was provided that can substantiate the fair value measurement process other than above components and hence C14 has been given zero rating.

Table-9.1.1
Fair Value Accounting and Reporting (FVAR) Index of Reliance Industries Limited

S.NO	Component Code	2017-18	2018-19	2019-20	2020-21	2021-22
1	C1	1	1	1	1	1
2	C2	1	1	1	1	1
3	C3	1	1	1	1	1
4	C4	1	1	1	1	1
5	C5	1	1	1	1	1
6	C6	1	1	1	1	1
7	C7	0.1	0.1	0.1	0.1	0.1
8	C8	0.1	0.1	0.1	0.1	0.1
9	C9	0	0	0	0	0
10	C10	0.1	0.1	0.1	0.1	0.1
11	C11	NA	NA	NA	NA	NA
12	C12	0	0.1	0.1	0.1	0.1
13	C13	0	0	0	0.1	0.1
14	C14	0	0	0	0	0
15	**TREC***	**6.3**	**6.4**	**6.4**	**6.5**	**6.5**
16	**TEC****	**13**	**13**	**13**	**13**	**13**
17	**RPEC*****	**48.46**	**49.23**	**49.23**	**50.00**	**50.00**

**TREC-Total Rating as per the Eligible Criteria, **TEC-Total Eligible Criteria, ***RPEC-Reliability Percentage as per the Eligible Criteria. It is calculated as a percentage of total number of disclosures given (Total Rating as per the Eligible Criteria) to the actual number of disclosures (Total Eligible Criteria) to be given for the equity investments as per the eligibility criteria*

9.2 Infosys Limited (IL):

At IL the equity investments are classified as unquoted investment measured at Fair Value Through Other Comprehensive Income (FVTOCI). They are categorized under level 3 of fair value hierarchy. Classification under level 3 of fair value hierarchy demands for increased number of disclosures. Therefore apart from fulfilling the basic reliability criteria of 6 points the equity investments at Infosys Limited must also fulfill additional disclosure requirements covered under C10 to C14.
As the equity investments are measured at FVTOCI the fair value measurements are non-recurring in nature, and hence they can be excluded from giving disclosures under C11 to C13 category that are applicable for fair value measurements measured through profit and loss account which are recurring in nature. Therefore, as per the requirement, sufficient disclosures can be given under C10 and C14.

However, at IL, the information regarding the type of valuation technique used has been given, but the information regarding the rationale behind the selection of the inputs and process of valuation has not been provided and hence the C10 has given 0.1 rating based on the subjective assessment of the researcher. It was understand that some additional information can be helpful to improve the reliability of the fair value measurement of equity investments at IL. However, no such information is made available under C14, and hence zero points have been assigned for C14.

IL has been consistent in following the accounting principles, practices and hence no change has been identified in the process of fair value accounting and reporting for equity investments at Infosys Limited.

Table-9.2.1
Fair Value Accounting and Reporting (FVAR) Index of Infosys Limited

S.No	Component Code	2017-18	2018-19	2019-20	2020-21	2021-22
1	C1	1	1	1	1	1
2	C2	1	1	1	1	1
3	C3	1	1	1	1	1
4	C4	1	1	1	1	1
5	C5	1	1	1	1	1
6	C6	NA	NA	NA	NA	NA
7	C7	NA	NA	NA	NA	NA
8	C8	1	1	1	1	1
9	C9	NA	NA	NA	NA	NA
10	C10	0.1	0.1	0.1	0.1	0.1
11	C11	NA	NA	NA	NA	NA
12	C12	NA	NA	NA	NA	NA
13	C13	NA	NA	NA	NA	NA
14	C14	0	0	0	0	0
15	**TREC***	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**
16	**TEC****	**8**	**8**	**8**	**8**	**8**
17	**RPEC*****	**76.25**	**76.25**	**76.25**	**76.25**	**76.25**

**TREC-Total Rating as per the Eligible Criteria, **TEC-Total Eligible Criteria, ***RPEC-Reliability Percentage as per the Eligible Criteria. It is calculated as a percentage of total number of disclosures given (Total Rating as per the Eligible Criteria) to the actual number of disclosures (Total Eligible Criteria) to be given for the equity investments as per the eligibility criteria*

9.3 Larsen & Toubro Limited (L&T)

The equity investments at L&T are classified as measured at FVTPL. Hence the fair value measurement for equity investments can be considered to be recurring in nature. They are further categorized under level 1 and level 3 of fair value hierarchy. Though the information regarding weather investments are quoted or unquoted is not given, it has been assumed that for level 1 classification inputs are considered to be available in the form of quoted prices and hence one point is assigned for C6 and for level 3 measurements substantial information is not given and hence 0.1 rating is assigned for C8.
The information regarding valuation techniques is also not given and hence zero rating is given for C10. There are no any reclassification has been done during the year and hence C11 is considered to be not applicable for the equity investments. However, the company provided information regarding reconciliation and sensitivity analysis for the level 3 classification and hence C12 and C13 were given 1 point rating. The presence of level 3 inputs always demands for additional information to improve the reliability. It was not only for level 3 inputs, but any information substantiating the fair value measurement adds value and improves the quality of fair value measurement. However, no additional information for equity investments was given. Therefore zero rating is assigned for C14.

Table-9.3.1

Fair Value Accounting and Reporting (FVAR) Index of Larsen & Toubro Limited

S.No	Component Code	2017-18	2018-19	2019-20	2020-21	2021-22
1	C1	1	1	1	1	1
2	C2	1	1	1	1	1
3	C3	1	1	1	1	1
4	C4	1	1	1	1	1
5	C5	1	1	1	1	1
6	C6	1	1	1	1	1
7	C7	NA	NA	NA	NA	NA
8	C8	0.1	0.1	0.1	0.1	0.1
9	C9	NA	NA	NA	NA	NA
10	C10	0	0	0	0	0
11	C11	NA	NA	NA	NA	NA
12	C12	1	1	1	1	1
13	C13	1	1	1	1	1
14	C14	0	0	0	0	0
15	**TREC***	**8.1**	**8.1**	**8.1**	**8.1**	**8.1**
16	**TEC****	**11**	**11**	**11**	**11**	**11**
17	**RPEC*****	**73.64**	**73.64**	**73.64**	**73.64**	**73.64**

**TREC-Total Rating as per the Eligible Criteria, **TEC-Total Eligible Criteria, ***RPEC-Reliability Percentage as per the Eligible Criteria. It is calculated as a percentage of total number of disclosures given (Total Rating as per the Eligible Criteria) to the actual number of disclosures (Total Eligible Criteria) to be given for the equity investments as per the eligibility criteria*

9.4 Sun Pharmaceutical Industries Limited (SPIL)

At SPIL the equity investments are classified as quoted and unquoted. The quoted investments are considered to be classified under level 1 of fair value hierarchy and the markets are readily available for the measurement of fair value of the equity investments. Also they were measured as FVTOCI. Hence their measurement is non-recurring in nature. On the other hand, some of the equity investments are considered to be classified as unquoted. For unquoted equity investments the inputs can be considered to be based on level 2 or level 3 of the fair value hierarchy.

However, at SPIL they were classified under level 3 of the fair value hierarchy, and also they were measured as FVTPL and hence their measurement is recurring in nature signifying need for additional information for the level 3 of fair value hierarchy. Therefore excluding categories C7 and C9 related to level 2 of fair value hierarchy the information regarding all other categories are essential to measure the quality of fair value accounting and reporting for equity investments measured under level 3 of fair value hierarchy.

The presence of level 3 inputs demands for more information to ensure reliability and comparability of the fair value information. However, the information regarding determination of level 3 inputs and the description regarding the valuation techniques used for level 3 measurement was found to be nominal and hence accordingly 0.1 has been assigned for C8 and C10 categories of FVAR index.

No reclassification has been done during the year, and hence C11 is given zero rating. However regarding the reconciliation of the level 3 inputs it was observed that information was substantially given and hence 0.6 was assigned for C12 of FVAR index.

For the other categories C13 and C14 considering the need for additional information and sensitivity analysis of fair value measurements under level 3 inputs no information was given and hence they were given zero rating.

Table-9.4.1
Fair Value Accounting and Reporting (FVAR) Index of Sun Pharmaceutical Industries Limited

S.No	Component Code	2017-18	2018-19	2019-20	2020-21	2021-22
1	C1	1	1	1	1	1
2	C2	1	1	1	1	1
3	C3	1	1	1	1	1
4	C4	1	1	1	1	1
5	C5	1	1	1	1	1
6	C6	1	1	1	1	1
7	C7	NA	NA	NA	NA	NA
8	C8	0.1	0.1	0.1	0.1	0.1
9	C9	NA	NA	NA	NA	NA
10	C10	0.1	0.1	0.1	0.1	0.1
11	C11	NA	NA	NA	NA	NA
12	C12	0.6	0.6	0.6	0.6	0.6
13	C13	0	0	0	0	0
14	C14	0	0	0	0	0
15	**TREC***	**6.8**	**6.8**	**6.8**	**6.8**	**6.8**
16	**TEC****	**11**	**11**	**11**	**11**	**11**
17	**RPEC*****	**61.82**	**61.82**	**61.82**	**61.82**	**61.82**

**TREC-Total Rating as per the Eligible Criteria, **TEC-Total Eligible Criteria, ***RPEC-Reliability Percentage as per the Eligible Criteria. It is calculated as a percentage of total number of disclosures given (Total Rating as per the Eligible Criteria) to the actual number of disclosures (Total Eligible Criteria) to be given for the equity investments as per the eligibility criteria*

10. DISCUSSION AND ANALYSIS

The study is based on the premise that ensuring reliability and comparability of fair value measurements is challenging and difficult. Without reliability, the relevancy, understandability and comparability of the fair value information cannot gain significance in the decision-making process. Hence for the successful application of fair value accounting, it is essential to focus on ensuring the reliability and comparability of the fair value measurements.

The inheritant weakness of the fair value measurement process is lack of sufficient conceptual basis. Therefore in this regard, the international standard setting bodies; the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) worked in collaboration to develop a conceptual framework for the measurement of fair value of an asset or liability that would enable to fulfill the qualitative characteristics of the financial information presented based on the fair value basis of measurement.

Though there was lack of consensus in coming out with an unified conceptual framework for fair value measurement each of them came out specific individual accounting standard for the fair value measurement. Accounting Standard Code (ASC) 820 Fair Value Measurement was issued by FASB and International Financial Reporting Standard (IFRS) 13 Fair Value Measurement was issued by IASB. Though they are considered to be two separate standards, the content and the context of fair value measurement is considered to be similar in both the accounting standards.

The Institute of Chartered Accountants of India (ICAI) being a member of the International Accounting Standard Committee (IASC) and subsequently a representative in the International Standard Process followed by IASB, also formulated an individual accounting standard, Indian Accounting Standard (Ind AS) 113 Fair Value Measurement similar to IFRS 13 Fair Value Measurement. The unique contribution in all the three accounting standards is the provision of fair value hierarchy that would help to categorize the level of inputs to be used in the fair valuation process depending on the availability of the markets for an asset or liability.

The level 1 inputs are considered to be available freely in the open markets, level 2 inputs are considered to be available indirectly referring to other related markets of the related assets and liabilities, and the level 3 inputs are considered to be completely not available and are to be based on the hypothetical open market assumptions. Hence depending on the level of inputs used based on fair value hierarchy, the quality of the fair value information remains varied. Going towards higher level of the fair value hierarchy requires additional information and additional disclosures, and also increases the complexity in the fair valuation process, thereby affecting the reliability and comparability of the financial information.

The process of fair value accounting cannot be similar for the same asset across the companies operating in the same industry or different industries. Therefore without sufficient disclosures the quality of fair value accounting and reporting reduces.

The Fair Value Accounting and Reporting (FVAR) index has been used to quantify the process of fair value accounting and reporting for equity investments. From an analysis of the FVAR index for equity investments through a selected sample of companies from the NIFTY50 of National Stock Exchange, it has been observed that FVAR process for Equity Investments has not been similar across all the selected companies.

The variation can be observed in terms of classification of inputs under the fair value hierarchy. As already discussed moving towards higher level of the fair value hierarchy demands for additional information and disclosures.

At Reliance Industries Limited (RIL), the fair value accounting and reporting for Equity investments is based on the inputs categorized into three levels and are both recurring and non-recurring in nature. Hence at RIL there was demand for additional information and disclosures for equity investments especially for level 3 inputs.

Excluding the reclassification category, all the components are found to be essential to ensure the reliability and comparability of fair value measurement at RIL. However, the reliability percentage is less than 50% for the first three years (48.46%, 49.23%, and 49.23%) and consequently improved to 50% during the last two years of the period of study.

The number of disclosures to be given are 13, and the disclosures given are rated as 6.3, 6.4, 6.4, 6.5 and 6.5 for the all years under study and the reliability increased from 48.46% in the year 2017-18 to 50% in the year 2021-22. The equity investments at RIL has fulfilled the basic criteria of 6 points for all the six categories.

At Infosys Limited (IL), the fair value measurement for equity investments is classified under level 3 and are non-recurring in nature and hence there was demand for additional information to fulfill the disclosure requirements of level 3 measurement. The total number of disclosures to be given are 8, and the actual number of disclosures are rated as 8.1. Hence the reliability percentage can be calculated as 76.25% for equity investments at IL. The equity investments at IL has fulfilled the basic criteria of 6 points for all the six categories.

At Larsen & Toubro Limited (L&T), the inputs for valuation of equity investments are classified under level 1 and level 3 of fair value hierarchy and are recurring in nature. Hence there was a demand for additional information and disclosures to be given for Equity investments at L&T. The total number of disclosures to be given are 11 and the total number of disclosures given are rated as 8.1. Therefore the reliability percentage can be calculated as 73.64%. The equity investments at L&T has fulfilled the basic criteria of 6 points for all the six categories.

At Sun Pharmaceutical Industries Limited (SPIL), the inputs for valuation of equity investments are classified under level 1 and level 3 of fair value hierarchy and are both recurring and non-recurring in nature. Hence there was a demand for additional information and disclosures to be given for equity investments at SPIL. The total number of disclosures to be given are 11, and the number of disclosures given are rated at 6.8 points. Therefore the reliability percentage can be calculated as 61.82%. The equity investments at L&T has fulfilled the basic criteria of 6 points for all the six categories.

From the above analysis, the diversify in the fair value accounting and reporting process can be observed with respect to equity investments. For the same item each company followed a different approach and different classifications under the fair value hierarchy. Depending on the classification under the fair value hierarchy, and accounting either through profit and loss account or through the other comprehensive income, the number of disclosures to be given are increased and accordingly there was variation in ensuring the reliability and comparability of the fair value information of equity investments.

The variation in the reliability and comparability of the fair value information of equity investments calculated in the form of a reliability percentage for the selected sample of companies has been given in Table-V below. Maintaining consistency in the reliability percentage can improve quality of comparability for the equity investments.

Table-10.1
Variation in the Reliability and Comparability of Fair Value Information of Equity Investment for the selected Sample of Companies based on Reliability Percentage

Name of the Company	Evaluation Criteria	2017-18	2018-19	2019-20	2020-21	2021-22
Reliance Industries Limited (RIL)	TREC*	6.3	6.4	6.4	6.5	6.5
	TEC**	13	13	13	13	13
	RPEC***	48.46	49.23	49.23	50.00	50.00
Infosys Limited (IL)	TREC*	6.1	6.1	6.1	6.1	6.1
	TEC**	8	8	8	8	8
	RPEC***	76.25	76.25	76.25	76.25	76.25
Larsen & Toubro Limited (L&T)	TREC*	8.1	8.1	8.1	8.1	8.1
	TEC**	11	11	11	11	11
	RPEC***	73.64	73.64	73.64	73.64	73.64
Sun Pharmaceutical Industries Limited (SPIL)	TREC*	6.8	6.8	6.8	6.8	6.8
	TEC**	11	11	11	11	11
	RPEC***	61.82	61.82	61.82	61.82	61.82

**TREC-Total Rating as per the Eligible Criteria, **TEC-Total Eligible Criteria, ***RPEC-Reliability Percentage as per the Eligible Criteria. It is calculated as a percentage of total number of disclosures given (Total Rating as per the Eligible Criteria) to the actual number of disclosures (Total Eligible Criteria) to be given for the equity investments as per the eligibility criteria*

11. CONCLUSION

From an analysis of the reliability and comparability of fair value information of equity investments using a Disclosure Index, Fair Value Accounting and Reporting (FVAR) Index for a selected sample of companies, it can be concluded that the fair value accounting and reporting is not only challenging, but also difficult.

As defined theoretically with the increase level of inputs under fair value hierarchy, the reliability and comparability fair value information can be declined and hence to overcome the challenge of ensuring reliability and comparability of the fair value information sufficient disclosures have to be provided, especially for the level 3 measurements.

The same can be observed with respect to equity investments. Though the selected set of companies are following the due policies and procedures in the fair value accounting and reporting for equity investments, there was need to focus on improving the level of disclosures under level 3 of fair value hierarchy.

A wide range deviations has been observed in the process of fair value accounting and reporting for the similar type of financial asset (the equity investment) across different types of business organization. Therefore, ensuring the reliability and comparability of the fair value information has not only becoming challenging, but also difficult.

The reliability percentage calculated based on the disclosure index shows the variation in the process of fair value accounting and reporting for the equity investments. Hence it can be concluded that fair value accounting and reporting process is dynamic and can be diversified across different business organization. The objective of the standard setting bodies is to bring uniformity in the fair value accounting and reporting process through the standardization of valuation practices for different types of financial and non-financial assets and liabilities. An analysis of fair value accounting and reporting process for equity investments serves as basis of quantifying and validating the process of fair value accounting and reporting and it can be replicated to other types of assets and liabilities.

12. LIMITATION

The analysis, interpretations and conclusions are subjected to researcher's bias and can be interpreted accordingly.

13. FUTURE SCOPE

The disclosure index methodology can be applied to other category of financial and non-financial assets and liabilities.

14. REFERENCES

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