

A Critical Analysis of Measurement and Disclosure aspect of Inventory (Special Reference to AS-2)

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The quality of corporate disclosure influences to a great extent the quality of investment decisions made by investors. The survey conducted by different institutions and researchers reveals that the material cost alone contributed about 60-65% of either sales value or total cost of the product. Dr Bhanawat found that the material cost alone contributed about 47.47% of sales value in cost structure of Indian manufacturing industry. On a save of rupee one ultimately increased the profitability of the firm. Hence the raw material becomes a significant factor for the investors to take the decisions, Therefore a proper disclosure of valuation principle is need of the hour. Singhvi and Desai developed a list of 34 items of information which they felt should be disclosed in annual reports for the purpose of measuring the quality of disclosure. Copeland and Frederick studied the extent to which changes in common stock outstanding were disclosed in annual reports. Carpenter, Francia and Strawser surveyed four user groups in order to determine their perceptions of the importance of, and information deficiencies for, several problem areas in accounting. Strephen constructed of 38 items or types of financial and non financial information which might appear in an annual report. After examining the literature it is observed that research work which has been done on the disclosure of items in general in annual report but no specific research work has been done except Manaswee K Samal regarding whether Indian manufacturing industry disclose the all aspect of raw material in annual report which has been suggested in AS-2 entitled "Valuation of Inventory." Samal studied confined with analysis of disclosure of different segments of inventory without formulating and testing the hypothesis after

considering only twenty two sample units.

The present study is concerned with inventory valuation and disclosure practices in corporate sector with special reference to Accounting Standard-2. The critical operative part of the Accounting standard-2 (Revised) is that "inventories should be valued at the lower of (a) Cost and (b) net realizable value". This standard requires an enterprise should disclose the accounting policies adopted in measuring or valuing inventories including the cost formula used and the total carrying amount of inventories and its classification appropriate to the enterprise. Common classifications of inventories are raw materials and components, work in progress, finished goods, stores and spares and loose tools. In present research paper, AS 2 has been critically analyzed on the basis of three criterion i.e. Measurement, Disclosure and Coverage aspects.

Objective: 1.To critically examines the measurement, disclosure and coverage aspect of inventory in special reference to AS-2. 2. To provide suggestions to improve the existing accounting standard

Survey methodology: The present study is based on primary data. The primary data have been collected through the questionnaire. A questionnaire has been developed and served on a sample size of around 500 respondents in the major cities of Rajasthan. Out of which 200 responses were received. This shows that around 60% of the sample did not respond.

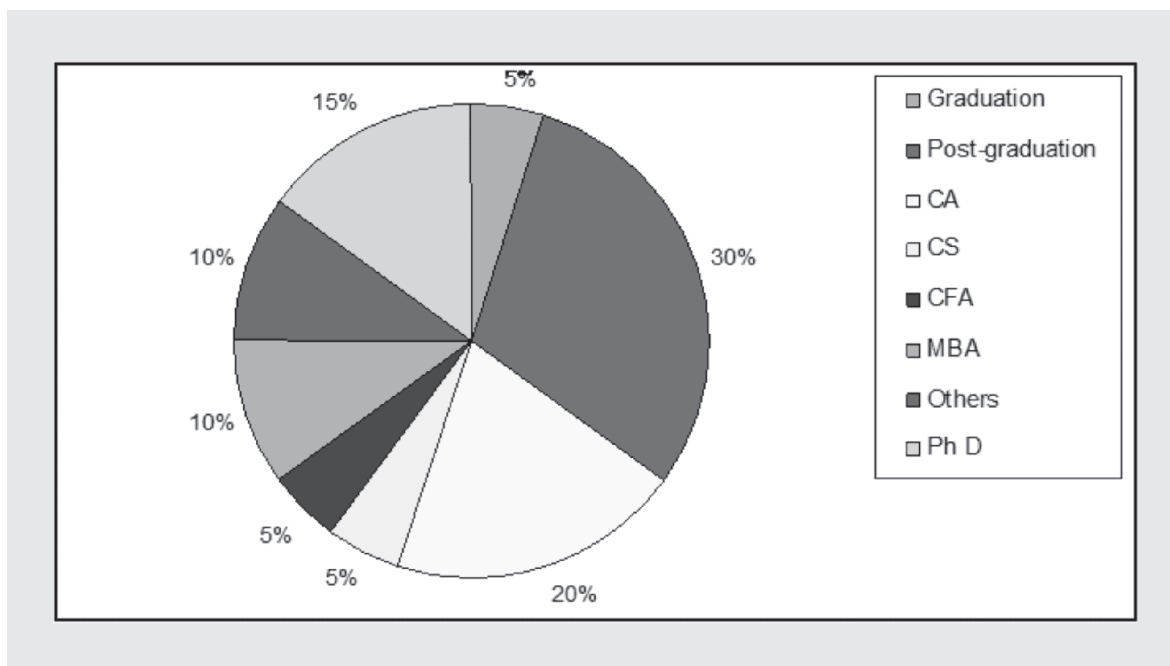
The compositions of respondent are as follows:

Category	Description	No. of Respondent	Percentage
Industrial Accountants	Accountants in various organization (Equal to Chartered Accountants Course or Accountants at middle level)	60	30%
Academicians	Professors, Researchers etc.	40	20%
Professionals	Practicing Chartered Accountants, Company Secretaries, Cost Accountants, M.B.A., Statutory Auditors, Internal Auditors and, Concurrent Auditors.	100	50%
	Total	200	100%

Qualification wise

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While conducting the research, a questionnaire on accounting and disclosure for inventories with special reference to AS-2 of ICAI was developed. The questions has mainly divided into three parts namely 1) Measurement aspect, 2) Disclosure Aspects and 3) Coverage. The Performa of questionnaire has been given in annexure enclosed at the end of this article.

To ensure uniformity in stimuli provided to the respondents, the same questions were asked to all respondents. Measurements were carried out by a three category ordinal

scale- 1) Agree, 2) partly agree and partly disagree and 3) Disagree.

A set of propositions was made against the three aspects of the accounting standards-2, i.e. measurement aspect, disclosure aspect and coverage aspect. Keeping in mind the limitation of this kind of survey, on an average, five to seven propositions were made against measurement, disclosure and coverage aspects of the standard. Details of the number of propositions are presented here.

Accounting Standard	Number of Propositions		
	Measurement Aspect	Disclosure Aspect	Coverage Aspect
AS-2	7	7	1

Analysis and Discussion of Survey Response

In order to identify the gap exists between the guidelines issued by ICAI regarding AS-2 and prevailing practices in Indian corporate sectors for valuation and disclosure of inventory, an intensive survey was conducted for this purpose among the professionals, accountants and accounting academicians. The data has been compiled through questionnaire.

The scores of perception survey among professional accountants and accounting academics in respect of

measurement aspect of the accounting standard have been summarized in Table 1 and the same for disclosure aspect and coverage aspect have been summarized in Table 2. The frequency of the response scores received on a scale of 1 to 3 has been shown. The perception scores have been classified into three points. Point 1 indicates about respondents who "Agree" with a proposition. Point 2 indicates about respondents who "Partly agree or partly disagree" and Point 3 indicates about respondents who "Disagree"

Measurement Aspect

Table 1: Frequency (for range) % for AS-2 measurement aspects

Propositions	A1	A2	A3	A4	A5	A6a	A6b	A7a	A7b
Factor point									
1	71.15	62.79	73.08	76.92	75.00	53.85	59.62	82.69	78.85
2	19.23	15.38	11.54	3.85	15.38	9.62	9.62	9.62	19.23
3	9.62	13.46	15.38	19.23	9.62	11.54	1.92	7.69	1.92
No Response	0.00	8.37	0.00	0.00	0.00	25.00	28.85	0.00	0.00

A1: Accounting Standard-2 (AS-2) excluded spare parts used for machineries from the purview of inventories. The intention of such exclusion is that the accounting treatment given to these spares is at par with fixed assets as per Accounting Standard-10, which deals with the accounting for fixed assets. The effect of this type of treatment is that even if these spares are not used for a long period, capitalization thereof would entitle depreciation thereon at least, thereby resulting in lower taxable profit. In our opinion, such exclusion leads to an incorrect valuation of inventories.

From the frequency analysis of response, it can be seen that 71.15% of respondents agree or strong agree that exclusion of spare parts used for machineries leads to incorrect valuation of inventories. So the view of accounting professionals is contrary to the prescription of the accounting standard.

A2: AS-2 excludes exchange fluctuation loss from cost of purchase of material invoiced against foreign currency, when it is credit purchased and such credit is outstanding as on the year end. Such loss is totally charged to P & L Account as per AS-11. Exclusion of such fluctuation leads to correct valuation of inventory in circumstances when the domestic currency has suffered down run against the foreign currency.

In case of treatment of exchange fluctuation loss related to inventory acquisition in forex, 62.79% of the respondents agree or strongly agree with the prescribed practice of charging this to the period's P&L Account. So there is no departure from the Standard. However 8.37% of the respondents did not give any response about this proposition.

A3: as per AS-2, the fixed production overhead which is part of total conversion cost is charged to inventory cost on normal capacity production basis. So when such fixed overhead cost, out of total conversion cost, is more compared

to variable overhead part and actual production is more than the normal capacity production, absorption of fixed production overhead based on normal capacity inflates the inventory value. So, in such case, the AS-2 shall provide for absorption of fixed overhead on actual capacity rather than on normal capacity.

As high as 73.08% of the respondents agree or strongly agree that in a situation where the actual production is more than normal capacity production, absorption of fixed overheads part of conversion cost shall be based on actual capacity. Otherwise, the inventory valuation will be inflated.

A4: AS-2 shall include amortization of intangibles like patents, licenses etc. specifically related to production process in inventory valuation, since they also constitute a part of production overhead. At present AS-2 does not specifically provide for this.

Nearly 77% of the respondents agree or strongly agree that the AS should specifically provide that intangible related to production process will form part of production overhead. So this could be an improvement over the existing standard in the sense that absence of specific mention might lead to either its inclusion or exclusion, thereby, distorting the reported profit. A specific mention would possibly avoid this.

A5: AS-2 excludes all borrowing cost from valuation of inventory. Borrowing cost specifically incurred for acquisition or production of inventory (like interest on cash credit for stock-in-trade) shall form part of inventory valuation taking into consideration average stock holding period.

75% of the respondents agree or strongly agree that borrowing cost specifically related to stock acquisition should form part of inventory cost considering the average stock holding period.

A6: AS-2, as amended, provides for weighted average cost method as one of the cost formulae for valuation. Under this method, weighted average can be calculated at the time of each issue. It can also be calculated taking the quantity and rate of all different lots together. The value arrived at, following these two approaches, may be substantially different. In our opinion:

- a) The standard should provide for one unique method for enhancing comparability of the financial statements i.e. for reducing measurement distortion in between different entities.

OR

- b) The standard should provide for disclosure of the type of weighted average worked out and should provide that the method adopted shall be consistently followed.

With respect to the proposition that the AS should provide for specific method of applying weighted average formulae for arriving at cost of inventory, the percentage of respondents who agree and strongly agree is not materially higher than respondents who did not respond and who disagreed. It seems that the opinion is somewhat equally divided. Therefore, it is reasonable to conclude that the prescription of the AS does not

seem to be grossly inadequate.

A7a&b: By-products and waste value are deducted from conversion cost and the balance is apportioned to main products. There are multiple method under which Net Realizable Value (NRV) of by-product and waste can be arrived at, on which AS-2 is silent. AS-2 shall provide for uniform methods for arriving at these values for specific industries, for more comparability of data. Similarly the method for apportioning balance cost to joint products shall also be provided for specific industries.

In case of by-products and waste, their NRV is deducted from the conversion cost and the balance is apportioned among the main products. However, the AS does not provide for the method of computing such NRV. There are multiple methods for arriving at it. 82.69% of respondents agreed with the proposition that the AS should provide for industry-specific formulae for maintaining comparability of data. 78.85% of the respondents agreed or strongly agreed that the AS should also provide for the method of apportioning the balance conversion cost to joint products. Absence of such prescription in fact gives a scope to the industry to choose from a wide variety of methods which can distort the profit.

Disclosure Aspect

Table 2: Frequency (for range) % for AS-2 disclosure and coverage aspects

Propositions	B1	B2	B3	B4	B5	B6	B7	C
Factor point								
1	94.62	80.77	61.54	82.69	84.62	69.23	48.08	50.00
2	0.77	13.46	15.38	13.46	7.69	21.15	17.31	17.31
3	4.61	5.77	23.08	3.85	7.69	7.69	34.62	32.69
No Response	0.00	0.00	0.00	0.00	0.00	1.92	0.00	0.00

B1: The general disclosure for valuation principle is that cost of NRV whichever is less. The disclosure practice should be at cost or NRV and in case one is adopted, the value under the other shall also be disclosed. Such disclosure shall be provided in case of all principal items separately.

The general disclosure for valuation principle is cost or NRV, whichever is less (w.e.l.). Companies, in fact, disclose that the inventory has been valued at cost or NRV w.e.l. However, this type of disclosure does not indicate whether inventory has been valued at cost or at NRV. The disclosure is necessary to get a reasonable assurance that the stated cost of the inventory is realizable, in case it is valued at cost, being less than the NRV. Around 94.62% of the respondents either agreed or strongly agreed that the disclosure should clearly indicate whether the

valuation is a cost or at NRV. A general disclosure that it has been valued at cost or NRV, w.e.l., does not serve the purpose. The possible reason for such kind of disclosure by corporate houses is the requirement of the AS. Unlike the IAS, the Indian AS does not prescribe that in case inventory is valued either at cost or NRV, the other value shall also be disclosed. Disclosure of the other value reveals the difference between the two and, thus, indicates the assurance of recoverability of the stated value. Hence, the Indian AS requires modification in the light

of IAS.

B2: The Company shall disclose the cost formulae used for valuation.

80.77% of the respondents either agree or strongly agree that the cost formulae used for arriving at cost of the inventory shall be disclosed. The AS provides for disclosure of the cost formulae. But analysis of the disclosure by companies in this regard reveals that 95.24% of companies do not disclose the cost formulae in a complete manner, either for all components of inventory or in general for inventory as such. To make the disclosure norm more stringent, the AS may provide that if the cost formula is not disclosed, the auditors should negatively qualify this in his report. It is true that in case the prescriptions of a mandatory AS are not complied with, the auditor is supposed to qualify his report. But this does not happen. So it seems that a specific mention about the negative qualifications will bring more stringency to the disclosure requirement, as well as of the audit function.

B3: Depreciation relating to fixed assets used in production is a part of cost of inventory. But while calculating managerial remuneration u/s 205 of the companies act, total depreciation is charged to P & L Account as an expense, which means that the entire depreciation is charged to cost of sales and nothing is charged towards cost of inventory. At present, the corporate accounts don't give any clue as to whether depreciation has been apportioned between cost of sales and inventory. As-2 shall provide that the amount charged to inventory should be separately disclosed.

61.54% of respondents either agreed or strongly agreed that the AS shall provide for the disclosure of apportionment of depreciation on assets used in production amongst cost of sales and inventory. The percentage is not substantially high. So it seems that the stipulations of AS need no modification in this regard.

B4: Companies' disclosure with regard to classification of inventory shall include stock-in transit, separately. (At present, some companies disclose it under notes to accounts).

82.69% of the respondents either agree or strongly agree that stock-in-transit should be separately disclosed in the face of the financial statement, rather than in notes to accounts. This percentage seems to be substantially high. It probably points out that the present disclosure pattern is inadequate and does need modification.

B5: Method used for by-product and joint product costing shall be disclosed.

84.62% of the respondents either agree or strongly agree that the method used for by-product and joint-product costing shall be disclosed. This percentage is very near to the percentage of respondents, who agreed with the proposition that the AS should provide for the method for arriving at the cost, i.e., 78.85%. On both counts, thus, the response seems to

be quite substantial and consistent with each other. Therefore, the need for prescription of methods for arriving at by-product and joint-product costing and disclosure seems to be necessary.

B6: The companies shall disclose the average rate of variability of market value during the year taking the ruling price on year beginning as base. This would help in gauging the probability of recovering the stated Net realizable value of inventory.

70.59% of the respondents either agreed or strongly agreed that the companies should disclose the average rate of variability of market value during the year taking the ruling price on year beginning as base, so that the probability of recovering the stated NRV can be gauged with reasonable assurance. Hence, it might be provided for in the AS as a disclosure requirement.

B7: Schedule VI of the companies Act, 1956, requires disclosing quantitative break-up of purchases and sales of all measure items manufactured or traded by a concern. This requirement becomes inapplicable by way of exemption order from central government in case of investment and finance companies under the plea of maintaining secrecy about their portfolio. Such a policy of granting exemption to such companies shall continue to be there.

Only 48.08% of the respondents either agreed or strongly agreed that the exemption by way of government order from disclosing quantitative break-up of purchases and sales of securities by the investment companies should continue to be there. Since the opinion is nearly equally divided, it seems that there is no need for any modification to the existing system.

Coverage Aspect

AS-2 shall be made applicable to service industries also. (For valuation of incomplete services as at year end).

Again only 50% of the respondents agree or strongly agree that the AS shall also be made applicable to service industries. Nothing can be concluded from this. The above response analysis possibly suggests the areas for modification, as far as existing requirements of the accounting standard are concerned.

Concluding Remark

- From the analysis of measurement aspect, it is found that on an average 70.44% respondents are agree or strongly agree, 12.61% respondents are partly agree or partly disagree, 10.04% respondents are either disagree or strongly disagree and 6.91% respondents are salient and no response has been given with regard to question no. A2, A6 (a) and A6 (b) only.
- As far as disclosure aspect is concerned, it reveals that on an average 74.51% respondents are agree or strong agree, 12.75% respondent are partly agree and partly disagree, 12.47% responded are disagree or strongly disagree and

0.27% respondents have not given any response or salient with regard to terms of question no. B-6 only.

- In coverage aspect only, 50% respondents are agree or strongly agree, 17.31% respondent are partly agree or partly disagree and remaining 32.69% respondents are disagree or partly disagree about this propositions. Hence nothing can be concluded from this proposition that Accounting Standard-2 to be made applicable to service industries also.

Suggestions

1. Our survey results show that the following modification is required in existing Accounting Standard-2.
2. It is suggested that spare parts used of machineries should be included in cost of inventory rather than capitalization.
3. It is suggested that fixed production overheads should be charged on actual capacity basis only when actual production is more than normal capacity production. Otherwise, the inventory valuation will be inflated.
4. AS-2 should include the intangibles like patent, licenses etc. when they specifically related to production process in inventory valuation.
5. Borrowing cost specifically incurred for production or acquisition of inventory should be form part of inventory cost, considering the average holding period.
6. AS-2 Should provides a unique or specific method of applying weighted average cost formulae for determining the cost of inventory and provide for disclosure of the type of weighted average worked out and should provide that the method adopted shall be followed consistently.
7. AS-2 should provide a uniform method for calculating NRV of by-product and waste for specific industries for maintaining comparability of data. The AS-2 should also provide the method of apportioning the balance conversion cost to joint product for specific industries. The selection of wide variety of methods can be distort the profit.
8. AS-2 Should disclosed both the value of NRV and Cost in annual reports separately. Such disclosure shall be provided in case of all principle items separately.
9. AS-2 should include stock-in-transit separately in companies' disclosure with regard to classification of inventory.
10. AS-2 Should discloses the method used for by-product and joint product costing in the financial statements.
11. AS-2 Should be applicable to service industries also for valuation of incomplete service as at year end.

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