Chapter - 7 "Audit Sampling"

Overview:

Traditional approach

↓

Routine checking

↓

Books of Accounts + related records

↓

detail checking

↓

regular basis

↓

Selected Scientifically

↓

Sample - Representative of Entire population

↓

results of sampling — to be applied over Entire **population** ?

Modern approach

↓

Risk Based Audit

↓

Risk Assess

↓

ToC - I.C - effectiveness

↓

ToD - Samples

↓

No. of samples — professional judgement.

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Standars | Guidelines | Norms

↓

SA - 530

SA - 530 → Types of Sampling ; Sampling Techniques ; Methods.

→ Sampling Risk

→ Sample design, size, selection etc.

(1) Introduction to Sampling:

(i) Limitations of traditional approach
(ii) Adoption of Standards while using Sampling

- to be covered from book -

(2) Meaning and types of Sampling:

- SA-530 "Audit Sampling" deals with the auditor's responsibilities while applying test checking in an audit of financial statements.
- SA 530 defines the term "Sampling" as - "Application of audit procedures to less than 100% of items within a population①, in a manner that all sampling units② has equal chances of selection so as to provide the auditor a reasonable basis to draw a conclusion on the entire population".

① Population: Entire set of data from which samples are selected.

② Sampling Unit: Individual transactions forming a population.

Samples: Sampling units selected for audit purposes.

Example: Sales of ABC Ltd. Consists of 1000 transactions amounting for ₹ 100 Crores.

Population: 1000 transactions. (100 Crores)

Sampling unit: Each transaction.

Samples: 1000 transactions:

			Approx
→ Upto 1 lakh (10%)	800	80	10%
→ 1 lakh - 10 lakh (100%)	105	25	25%
→ 10 lakh - 1 Crore. (40%)	70	50	280%
→ > 1 Crore. (40%)	25	25	40%
	1000	180 (18%)	71%

Chapter - 7 "Audit Sampling"

(Lecture No. 2)

(1) Introduction to sampling

(2) Meaning and types of sampling:

Sampling is primarily classified as — (A) Statistical Sampling
(B) Non-Statistical Sampling (Judgement sampling)

Statistical Sampling: Sampling approach, which has the following features:

(a) Random selection
(b) Use of Probability theory
(c) Ensures equal chances of selection of sampling units
(d) Helps in determination of sampling risk.

Examples: Systematic Sampling ; Random Sampling.

Characteristics: (a) More scientific
(b) Widely accepted and applied
(c) No Personal biasness.

Advantages:

(i) More objective and defensible selection.
(ii) Provide means of deriving a calculated risk for a particular sample size → 10% | 20% | 30% | 40%
(iii) Provide means for determination of a sample size for a specific risk. – 5% →
(iv) Better presentation of Entire population, particularly in case of heterogenous population. (through use of Stratification)
(v) Ensures consistency in sample size irrespective of sampling units in population.

Sample size = 100 items

Population : 1000 — $\frac{1000}{100}$: Every 10th

↳ : 1200 — $\frac{1200}{100}$: Every 12th

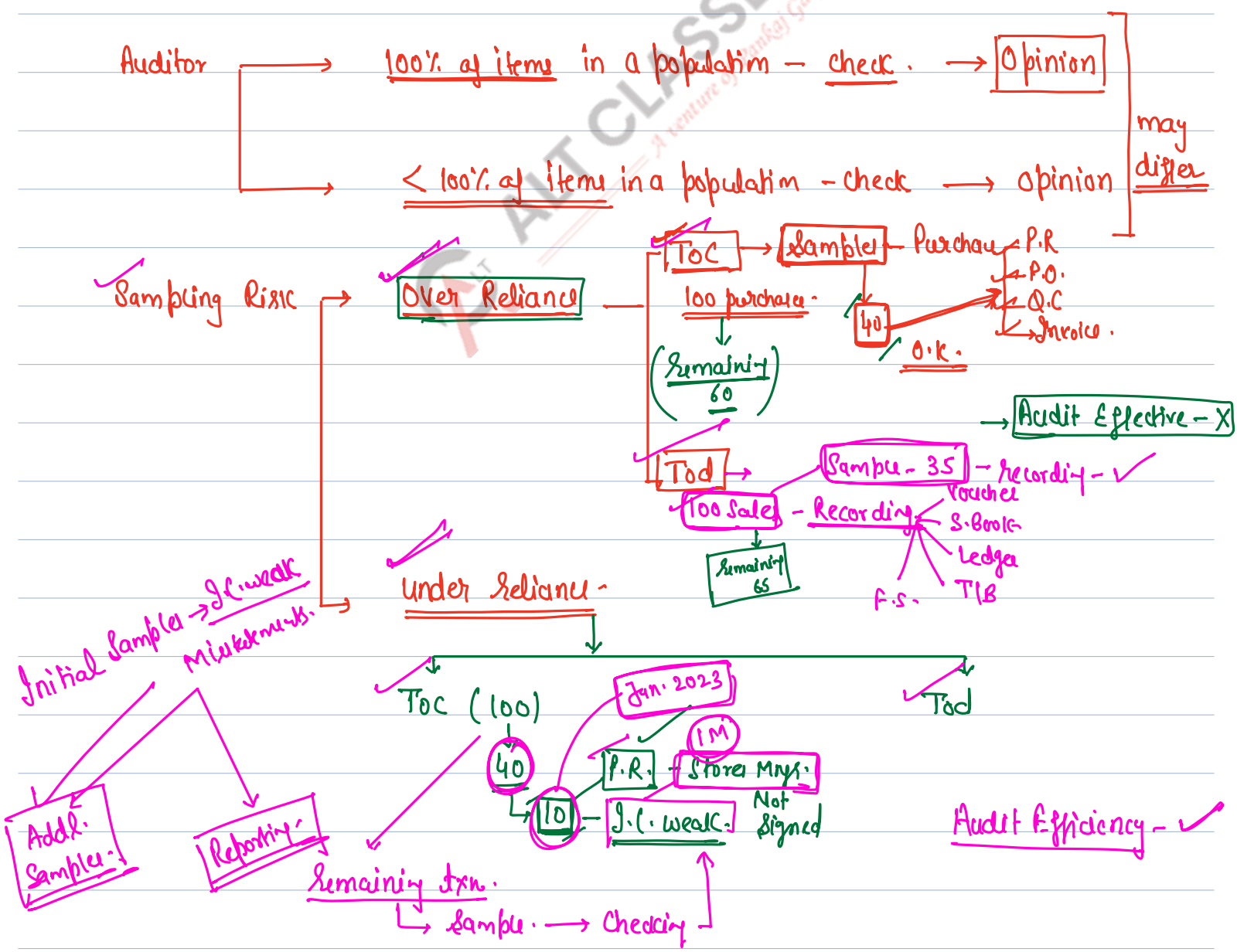
Non-Statistical Sampling: - An approach that do not have feature of (a) Random Selection (b) use of Probability theory.

- Non statistical sampling involves judgement of auditor; hence may be considered to be subjective.

Examples: Haphazard Selection.

Note: Non-statistical sampling, if applied by the auditor with appropriate judgement with due care and skills, can also provide better results.

③ Sampling Risk and Non-sampling risk:



Sampling Risk: Risk that the auditor's conclusion based on examination of samples may be different from the conclusion, if the entire population was subjected to same audit procedures.

Sampling risk can be classified as:

	Risk of over Reliance	Risk of under-reliance
(a) W.r.t. ToC	Auditor may consider that Internal controls are more effective when actually they are not.	Auditor may consider that I.C. are less effective when actually they are more effective.
(b) W.r.t. ToD	Auditor may consider that material misstatements does not exist, when actually they exist	Auditor may consider that material misstatements exists, when actually they does not exist
	↓ Impact	↓ Impact
	It leads to erroneous conclusion which affects audit effectiveness (Inappropriate opinion).	It affects audit efficiency that requires more efforts to conclude that initial conclusions were wrong.

Non-Sampling Risk: Risk that the auditor reaches an erroneous conclusion for any reason not related to sampling risk.

Main Causes of non-sampling risk:

(i) Human Mistake
(ii) Misinterpretation of sampling results.
(iii) Inappropriate procedures used.
(iv) Relying on erroneous confirmations, doubtful written representations.

(4) Sample design, size and selection:

(A) Sample design: Auditor should design the population so as to ensure that samples represent the Entire population.

While designing the population, auditor need to consider the following:

(a) Purpose of audit procedures; and

(b) Characteristics of the population from where samples are to be drawn. [Appropriateness; Completeness; Reliable and accurate]

- For designing purposes, auditor may use the concept of (A) Stratification ; and (B) Value weighted selection

Stratification:
- Concept of stratification generally applies in case of heterogenous population.
- Stratification involves conversion of heterogenous population into homogenous groups, known as 'Strata'.
- Samples are selected from each 'strata' and hence represent the entire population.

For Example: In case of a large entity, having sales value ranging from low amount to high amounts, sales may be classified as:

(a) Sales upto ₹ 1 lakh
(b) Sales ranging above 1 lakh but upto ₹ 10 lakh
(c) " " above ₹ 10 lakh but upto ₹ 1 Cr.
(d) " " above ₹ 1 Cr.

from each group samples are selected based on assessed risk.

Stratification helps in determination of samples in a manner that represent Entire population.

Value weighted Selection: In case of value weighted selection approach, population is being designed in a manner that more consideration is given to high value transactions; and less consideration is given to low value transactions.

- Individual transactions of highest value are considered by the auditor while designing the population.

Benefit: More efforts are directed to the larger value items. and hence can result in smaller sample size.

For Ex: In XYZ ltd, purchases ranges from ₹ 10000 to ₹ 5 Cr.
Total Purchases = ₹ 90 Crores.
Auditor consider all purchases above ₹ 50 lakh. Total of such transaction amounts to ₹ 80 Crores

Note: This approach may be used in conjunction with Systematic method of selection and is most efficient when selecting items using Random selection

(B) **Sample Size**: Auditor should determine the sample size in rational manner so as to reduce the sampling risk to an appropriate low level.

While determining the sample size, auditor need to consider the following:

(i) Size of the Organisation (Bigger is the size, larger no of items to be selected)

(ii) State of Internal Control. (In case of weak I.C, sample size for substantive tests to be increased).

(iii) Adequacy and Reliability of books and records. (In case of adequate and reliable records, sample size may be lower)

(iv) Tolerable error Range. — (In case of High tolerable rate of deviation, sample size for ToC can be lower)
(In case of High tolerable mis-statement, sample size for Tod can be lower)

(v) Degree of desired confidence or assurance. — In case of Higher desired assurance, sample size to be increased. And vice versa.

Factors affecting Sample Size in Case of ToC and Tod: - from book -

		Sample size
ToC - Increase -	Extent to which auditor's risk assessment takes into account relevant controls	Increase
	Expected rate of deviation	"
	Tolerable " " "	Decrease
	Desired level of Assurance	Increase

		Sample size
Tod - Increase -	Auditor Assessment of Material Misstatement	Increase
	Desired level of Assurance	"
	Tolerable Range of Misstatement	decrease
	Expected number of misstatements	Increase
	Use of stratification	decrease
	Applying more procedures to evaluate a assertion	decrease

(C) **Sample Selection:** Auditor should select the samples from the population in such a manner that no biasness enter into selection and every transaction has equal chances of selection.

Methods of sample selection:

(i) Random number selection
(ii) Systematic selection
(iii) Monetary unit selection
(iv) Block selection
(v) Haphazard selection.

to be learned from book

Example: Population comprises of 100 transactions of credit purchases
Sample size: 25 Items

① $\frac{\text{Population}}{\text{Sample Size}} : \frac{100}{25}$: Every 4th transaction (Sampling interval) — Systematic

Voucher / transaction :

4	8	12	16	20	24	28	32	36	40	- - - - - - -
3	7	11	15	19	23					
2	6	10	14	18	22	26	30	34		
1	5	9	13	17						

② Random No. Table: 25 out of 100

10, 11, 12, 18, 19, 51, 61, 71, 74, 75, 76, 77, 91, 92, 98, - - - -

3, 4, 5, 6, 11, 12, 13, 19, 21, 23, 41, 42, 46, 51

③ 100 transaction – data analytical tool – Arrange Monetary wise.
High value transaction – (First 25) – (Value Weighted Selection)

④ Judgement Based → Highly Risky | R.P. | Complex | No Systematic basis / no scientific base | Haphazard Selection

⑤ Auditor – 25 transactions · Sequence · gap · Uniform ✗

5 Block — 5 transaction each

$\frac{100}{5}$: 20 (Block size)

01 - 20	06, 07, 08, 09, 10
21 - 40	23, 24, 25, 26, 27
41 - 60	54, 55, 56, 57, 58
61 - 80	61, 62, 63, 64, 65
81 - 100	92, 93, 94, 95, 96

Chapter - 7 "Audit Sampling"

(Part - III)

Topics Covered: (i) Introduction to Sampling

(ii) Meaning and types of sampling

(iii) Sampling Risk and Non Sampling Risk

(iv) Samples Design, Size and Selection

- (a) Stratification
- (b) Value weighted Selection

appropriate ↓ Sampling risk low level

- (a) - Random Selection
- (b) - Systematic "
- (c) - Block "
- (d) - Haphazard "
- (e) - Monetary Unit "

Example: Population - Sales = >1000 Transactions (Heterogenous Nature)

Amount: Approx 100 Crores

2022-23 ↓

Trade Receivables as at 31.03.2023 : 50 parties ✓ Amount: 35 Cr.

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Year End Balances Confirm

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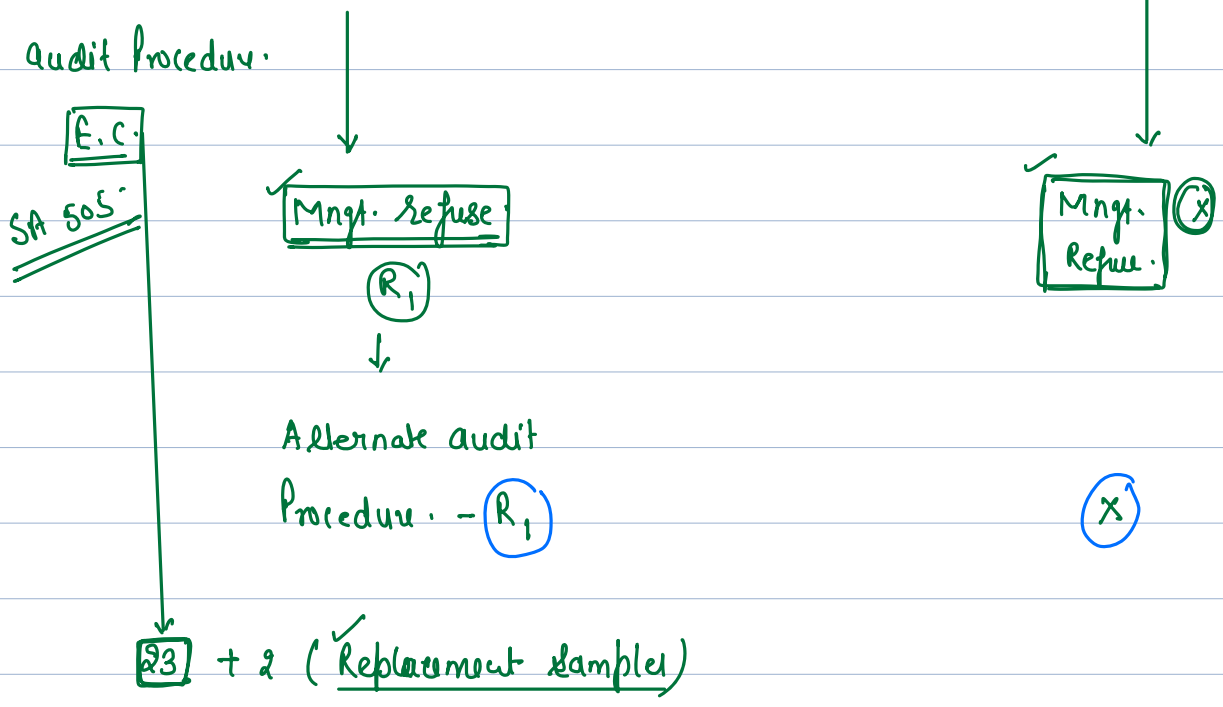
Procedures: External Confirmation

(i) Sample design: 50 Parties

Stratification:

	Related parties	Export Sale.	Govt. Sale.	Whole Sale
	5	10	5	30
(ii) Sample size: 25	5 ✓	5	5	10
(iii) Sample selection:	5 ! - R_1	Systematic Sampling - Every 2nd	5	Random Selection - S_1, S_2

(iv) Designed audit Procedure.



- Original Sample : 25 — Audit Procedures (E.C.) - 23
  Alternate Audit procedure - 2
- Replacement Sample : 2 — Audit procedures (E.C.)

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Audit Evidences - Collected

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Audit Conclusion → Sample → Population.

(v) Performing audit procedures and Evaluating result of audit sampling:

- Auditor should perform designed audit procedures over the selected items (original samples).
- However, if designed audit procedure cannot be performed over the selected items, auditor shall consider the following:
  (original samples)

(a) Perform Alternate audit procedure over the original samples on which the designed audit procedures cannot be performed.

(b) Select Replacement samples and perform designed audit procedures over them

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If auditor is not able to collect audit evidences by performing alternate audit procedures over the original samples, auditor shall treat it as:

(a) deviation w.r.t. Internal Control; (in case of ToC)

(b) Misstatement w.r.t. accounting data. (in case of ToD)

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- Auditor shall Investigate the nature and causes of deviations and misstatements identified and evaluate their possible effect on audit opinion.

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- Auditor shall project misstatements found in the sample to the population so as to obtain a broad view of scale of misstatements.
- If a misstatement has been established as an anomaly it may be excluded while projecting misstatements to the population. However, effect of any such anomalous misstatement, if uncorrected, still need to be considered, in addition to the projection of non-anomalous misstatements.

Evaluating Result of audit Sampling:

- Auditor shall evaluate the results of the sample and determine whether the use of audit sampling has provided a reasonable basis for conclusion for the entire population that has been tested.

- If auditor conclude that audit sampling has not provided a reasonable basis for the conclusions about the population, auditor may request the management to investigate the misstatements identified.

- While analysing deviations (in case of ToC) and misstatements (in case of ToD), auditor is also required to consider the qualitative aspects of misstatements identified by him. (For Ex: Type of transaction; timing of occurrence of transaction; processing of transaction by a person).
