



# The Indian Journal for Research in Law and Management

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## THE ROLE OF SCIENTIFIC EVIDENCE IN CRIMINAL TRIALS IN INDIA

### WHAT IS EVIDENCE?

The word “evidence” signifies in its original sense, the state of being evident, i.e., plain, apparent or notorious. But it is applied to that which tends to render evidence or generate a proof.

**According to Stephen**, the word ‘evidence’ as generally employed, is ambiguous:-

- It sometimes means the words uttered in and things exhibited by witnesses before the court of justice;
- At other times it means the facts proved to exist by those words or things and regarded as the ground work of inference as to other facts in issue not so proved;
- It is sometimes used as meaning to assert that a particular fact is relevant to the matter in the inquiry.

### TYPES OF EVIDENCE

#### Oral Evidence

- As according to Section 2(1)(e) of Bharatiya Sakshya Adhinyam, 2023 states that - All statements including statements given electronically which the court permits requires to be made before it by witnesses in relation to matters of fact under inquiry and such statements are called oral evidence.<sup>1</sup>
- Oral evidence renders to the evidence that is mainly words spoken by mouth. It is adequate to be proved without the support of any documentary evidence, provided it has credibility.

#### Documentary Evidence

As according to Section 2(1)(e) of Bharatiya Sakshya Adhinyam, 2023 states that -

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<sup>1</sup> Bharatiya Sakshya Adhinyam, Act No.47 Of 2023, 2

All documents including electronic or digital records produced for the inspection of the court and such documents are called documentary evidence.<sup>2</sup>

### Primary Evidence

As according to Section 57 of Bharatiya Sakshya Adhiniyam, 2023 states that-primary evidence means the document itself produced for the inspection of the court.<sup>3</sup>

### Secondary Evidence

As according to Section 58 of Bharatiya Sakshya Adhiniyam, 2023 states that-secondary evidence includes-

- (1) Certified copies given under the provisions hereinafter contained.
- (2) Copies made from the original by mechanical processes which in themselves ensure the accuracy of the copy, and copies compared with such copies.
- (3) Copies made from or compared with the original.
- (4) Counterparts of documents as against the parties who did not execute them.
- (5) Oral accounts of the contents of a document given by some person who has himself seen it.
- (6) oral admissions;
- (7) written admissions;
- (8) evidence of a person who has examined a document, the original of which consists of numerous accounts or other documents which cannot conveniently be examined in court, and who is skilled in the examination of such documents<sup>4</sup>

### Direct evidence

If the presented evidence relates directly to the existence or non-existence of a fact in issue then the evidence will be considered direct evidence

### Circumstantial Evidence

if the evidence relates to the existence or non-existence of only a relevant fact then it will be considered as indirect or circumstantial evidence. For establishing proof by circumstantial evidence, four things are required:

- All the facts should be consistent with the theory.
- The circumstances from which the inference for the theory was drawn, should be fully established.
- The circumstances should be of a decisive nature.
- The circumstances should serve to mean and prove only the theory proposed to be proved and should not entertain any other theory.<sup>5</sup>

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<sup>2</sup> Id at 1.

<sup>3</sup> Bharatiya Sakshya Adhiniyam, Act No.47 of 2023, 57

<sup>4</sup> Bharatiya Sakshya Adhiniyam, Act No.47 of 2023, 58

<sup>5</sup> Sumit Kumar Suman, 4 April 2015, <https://www.lawctopus.com/academike/concept-historical-background-evidence/>

### Judicial Evidence

Judicial evidences are those which are given before the magistrate in the court. For example- a confession made by the accused before the magistrate in the court is an Judicial Evidence

### Non – Judicial Evidence

Any confession made by the accused outside the court and not in front of the magistrate but in the presence of some other person are termed as Non- Judicial evidences.

### Hearsay Evidence

The term “hearsay” is one of those frequently listened but at times caught on by those who don't utilize prove in their day to day callings. It does not cruel flawed prove. It does not indeed cruel prove you cannot utilize in court since very regularly noise is permitted in a court of law. It may be a particular term characterizing a specific sort of prove that will or may not be permitted into prove based on the specific circumstances of how it was made.

Merriam-Webster has an excellent definition of what hearsay is: “...evidence based not on a witness's personal knowledge but on another's statement not made under oath.” In American courts, hearsay is often not allowed in as evidence to prove the truth of what is testified to.<sup>6</sup>

The reason hearsay is barred for evidence is simple: one cannot cross examine the person who is making the statement since that person is not in court. The person in court or the document read is simply repeating what someone else said...and that someone else is not present for cross examination.<sup>7</sup>

## **WHAT IS SCIENTIFIC EVIDENCE?**

Scientific evidence refers to empirical observations, measurements, and data collected through rigorous experimentation, observation, or analysis, which support or refute a hypothesis, theory, or scientific claim. It forms the basis for scientific understanding and contributes to the accumulation of knowledge in various fields. Scientific evidence can come in various types, each serving different purposes and obtained through different methods. Here are some common types of scientific evidence:

- Emperical Evidence: This type of evidence is based on direct observation or sensory experience. It includes data collected through observation, measurement, and experimentation.
- Experimental Evidence: Experimental evidence is gathered through controlled experiments, where researchers manipulate variables to test hypotheses and observe the resulting effects.
- Observational Evidence: Observational evidence is obtained through the observation of natural phenomena without deliberately intervening or manipulating variables.

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<sup>6</sup> Hearsay Evidence: The Basics, <https://www.stimmel-law.com/en/articles/hearsay-evidence-basics>

<sup>7</sup> Id at 6.

- **Quantitative Evidence:** Quantitative evidence involves numerical data and measurements. It includes quantitative observations, measurements, and statistical analyses.
- **Anecdotal Evidence:** Anecdotal evidence consists of individual accounts or stories that may support a particular claim or hypothesis but are not systematically collected or rigorously analysed.
- **Meta-analysis:** Meta-analysis involves the systematic review and statistical synthesis of existing research studies on a particular topic. It allows researchers to combine data from multiple studies to derive more robust conclusions and identify patterns or trends across studies.
- **Modeling and Simulation:** Modeling and simulation involve the creation of mathematical or computational models to simulate complex systems or phenomena.

## **CONCLUSION**

Evidence is crucial in establishing the veracity of a claim or statement, and its significance cannot be overstated in the resolution of both civil and criminal cases. Without evidence, the substantiation of facts would be rendered ineffective. Furthermore, the various forms of evidence hold considerable importance in terms of their pertinence and admissibility criteria. In essence, the absence of evidence in a case would render it impossible to ascertain its outcome.