
A CRITICAL ANALYSIS OF EVM CONTROVERSIES AND JUDICIAL PERSPECTIVES IN ELECTION TRIALS IN MAHARASHTRA STATE

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ABSTRACT

The integrity of the electoral process is the sine qua non of a functioning democracy. In India, Electronic Voting Machines (EVMs) have formed the backbone of the electoral architecture since their nationwide deployment in 2004, transforming an unwieldy paper-ballot system into a streamlined digital exercise. Yet, from their very inception, EVMs have been the subject of contentious debate, attracting allegations ranging from programmatic vulnerability to politically motivated tampering. Maharashtra — with its complex multi-party landscape, high voter density, and a series of bitterly contested assembly and parliamentary elections — has emerged as one of the principal theatres of this controversy. This paper undertakes a critical examination of the EVM debate in Maharashtra through a tripartite lens: the technical and evidentiary dimensions of tampering allegations, the constitutional and statutory framework governing electoral disputes, and the evolving judicial jurisprudence of the Bombay High Court and the Supreme Court of India. Drawing upon reported election petitions, Supreme Court directions on VVPAT (Voter Verifiable Paper Audit Trail), academic literature, and ECI documentation, the paper argues that while the Indian judiciary has consistently upheld the constitutional validity of EVMs, it has simultaneously imposed procedural obligations on the Election Commission that reflect a nuanced sensitivity to voter confidence. The paper concludes with proposals for legislative and technological reform aimed at reconciling transparency with administrative efficiency.

Keywords: Electronic Voting Machine, EVM tampering, VVPAT, election petition, Bombay High Court, Maharashtra elections, judicial review, Election Commission of India, democracy, electoral integrity.

1. INTRODUCTION

Democracy is not merely a system of governance; it is a covenant between the state and its citizens, renewed periodically through the act of free and fair elections. The manner in which votes are cast, recorded, and counted is therefore a matter of profound constitutional significance. India, the world's largest democracy, introduced EVMs as a technological response to persistent problems associated with the paper ballot system including ballot-stuffing, booth capturing, and logistical inefficiencies. The Election Commission of India (ECI) conducted the first partial EVM-based election in 1982 in Kerala, and following extensive testing and legal validation, rolled out EVMs nationally in 2004. By the 2014 and 2019 general elections, approximately 1.7 million EVMs were deployed across the country.

Maharashtra has been the site of some of India's most politically significant and legally disputed elections. The State Legislative Assembly elections of 2014 and 2019, along with the concurrent Lok Sabha elections, produced results that were challenged by opposition parties and individual candidates through formal election petitions as well as public interest litigation. These challenges, while largely unsuccessful on merits, have generated a substantial body of judicial reasoning on the admissibility of EVM-related evidence, the burden of proof in tampering allegations, and the constitutional scope of judicial review over electoral management.

This paper attempts to synthesise these dimensions into a coherent analytical framework. It proceeds in the following order: Part II contextualises the technical architecture of EVMs and the nature of tampering allegations. Part III surveys the statutory and constitutional foundations for electoral disputes. Part IV critically analyses judicial decisions pertaining to Maharashtra. Part V evaluates the VVPAT debate in the context of judicial mandates. Part VI offers conclusions and recommendations.

2. THE TECHNICAL ARCHITECTURE OF EVMs AND THE MORPHOLOGY OF TAMPERING ALLEGATIONS

2.1 Design and Functionality

An Indian EVM is a standalone, battery-operated device comprising two units — the Control Unit (CU) operated by the presiding officer and the Balloting Unit (BU) accessible to the voter

— connected by a five-metre cable. Both units are manufactured exclusively by two public-sector undertakings, Bharat Electronics Limited (BEL) and Electronics Corporation of India Limited (ECIL), under the direct supervision of the ECI. The machines operate on a one-time programmable (OTP) chip, meaning the software embedded at the manufacturing stage cannot be altered post-production. They are not connected to the internet, do not possess wireless capability, and are designed to be immune to external signals.

The ECI introduced the VVPAT as an additional layer of verifiability beginning with bye-elections in Nagaland in 2013, and by the 2019 Lok Sabha elections, all polling stations were equipped with VVPAT units. The VVPAT prints a paper slip bearing the candidate's name, symbol, and serial number that is visible to the voter for seven seconds before dropping into a sealed compartment. This slip, in theory, allows post-poll auditing of the EVM count.

2.2 Categories of Tampering Allegations

Allegations of EVM manipulation broadly fall into three categories. The first category relates to pre-election tampering, wherein it is alleged that machines are pre-programmed to record votes in favour of a predetermined candidate irrespective of the button pressed. The second category pertains to post-election data manipulation, involving claims that vote tallies stored in the CU are altered between the close of polling and the counting stage. The third category, increasingly prominent since 2017, concerns the alleged non-correspondence between VVPAT slips and EVM counts, suggesting a systematic divergence between the paper trail and the electronic record.

In Maharashtra, following the 2019 Vidhan Sabha elections which produced a fractured mandate and an unprecedented government-formation crisis, multiple opposition parties alleged that EVM results in several constituencies — including Pune, Nashik, and Nagpur — did not reflect the actual voter preference. These allegations were made to the ECI through formal representation, before the Bombay High Court through election petitions, and before the Supreme Court through special leave petitions. The common thread was the demand for a comprehensive VVPAT slip recount, which was resisted by the ECI on grounds of administrative burden and the absence of statutory basis.

3. STATUTORY AND CONSTITUTIONAL FRAMEWORK FOR ELECTORAL DISPUTES

3.1 The Representation of the People Act, 1951

The primary legislative instrument governing electoral disputes in India is the Representation of the People Act, 1951 (hereinafter, "the Act"). Section 80 of the Act provides that no election shall be called in question except by way of an election petition presented to the High Court in accordance with the provisions of the Act. The grounds upon which an election may be declared void are enumerated under Section 100, which includes, inter alia, corrupt practice, non-compliance with the provisions of the Constitution or the Act or Rules made thereunder, and the improper acceptance or rejection of any nomination.

Significantly, the Act does not specifically address EVM malfunction or tampering as an independent ground for voiding an election. Courts have, therefore, had to address such claims under the residual ground of "non-compliance with the provisions of the Constitution" or under the broader rubric of "improper reception, refusal or rejection of any vote or reception of any vote which is void." This legislative silence on EVMs has been a recurring point of contention in election petitions, with petitioners arguing that the statute must be interpreted purposively to encompass modern technological irregularities.

3.2 The Constitutional Dimension

The right to vote in India, while not an express fundamental right, has been recognised by the Supreme Court as a statutory right of a civil character that is closely allied to the democratic structure of the Constitution guaranteed under Articles 324 to 329. Article 324 vests the superintendence, direction, and control of elections in the ECI, endowing it with plenary powers that have been construed broadly by the judiciary. In *People's Union for Civil Liberties v. Union of India*, the Supreme Court affirmed that the right to vote carries with it the right to know the antecedents of candidates, indicating the Court's recognition of informational dimensions of electoral participation.

The judicial review of ECI decisions is possible but limited. The Constitution under Article 329(b) bars courts from questioning the validity of any law relating to the delimitation of constituencies or the allotment of seats, and restricts interference in election proceedings. Courts have construed this bar narrowly, however, allowing review of the ECI's exercise of power under Article 324 in cases of manifest arbitrariness or violation of fundamental rights.

4. JUDICIAL PERSPECTIVES: MAHARASHTRA-SPECIFIC CASES

4.1 Election Petitions Before the Bombay High Court

The Bombay High Court has been called upon to adjudicate EVM-related election petitions following every major election cycle in Maharashtra since 2009. The judicial approach has been markedly consistent: courts have demanded a high threshold of proof from petitioners alleging tampering, and have consistently declined to order a recount of VVPAT slips absent specific, credible, and corroborated evidence of malfunction. In *Hari Shankar Lal v. Returning Officer, Nagpur*, arising from the 2019 Lok Sabha elections, the Bombay High Court dismissed the petition at the preliminary stage, holding that bald allegations of EVM tampering, unsupported by technical expert evidence or statistical anomalies, do not constitute a triable issue warranting a full trial.

In *Dr. Suresh Mane v. Election Commission of India*, a writ petition filed before the Bombay High Court in the aftermath of the 2019 Vidhan Sabha elections, the petitioner sought a direction to the ECI to conduct a 100% VVPAT slip verification in five Pune constituencies. The Court, while acknowledging the petitioner's right to transparency, held that the ECI's existing protocol of VVPAT verification in five randomly selected booths per assembly segment — as mandated by the Supreme Court in the VVPAT order of 2019 — was constitutionally adequate and did not violate the right to free and fair elections. The Court emphasised the presumption of regularity attached to governmental acts and the absence of any demonstrated discrepancy between VVPAT slips and EVM counts in the constituencies concerned.

4.2 The Supreme Court and the VVPAT Controversy

The most significant judicial intervention in the EVM debate at the national level, with direct implications for Maharashtra, is the Supreme Court's order in the matter of *N. Chandrababu Naidu v. Union of India*, filed as a writ petition by multiple opposition leaders including representatives from Maharashtra's Nationalist Congress Party and Congress. The petitioners sought a direction that at least 50% of VVPAT slips be physically counted and matched against EVM tallies. The Supreme Court, in a detailed order, rejected the prayer for 50% counting as disproportionate and administratively unworkable, but increased the mandatory VVPAT verification from one to five randomly selected EVMs per assembly constituency.

This order has been the subject of considerable academic debate. Prasad has argued that the Court's reliance on the ECI's statistical submissions — to the effect that verification of five EVMs per constituency would detect tampering with a 99.9936% probability — was insufficiently scrutinised, as the statistical model presupposes random rather than targeted tampering. Srikanth has similarly contended that the Court's deference to administrative convenience over the right to verified electoral outcomes reflects a systemic tension in the judicial review of expert-dominated technical decisions.

In the *21 Opposition Parties* petition, which was filed in the weeks immediately preceding the 2019 Lok Sabha elections and involved parties with a substantial presence in Maharashtra, the Supreme Court directed the ECI to use EVMs with VVPAT in all constituencies while simultaneously declining to permit a comprehensive paper-trail audit. The Court's reasoning rested on the principle of institutional trust: that the ECI, as a constitutionally mandated independent body, must be accorded a presumption of integrity in the absence of concrete evidence of systemic failure.

4.3 The Burden of Proof Problem

A pervasive difficulty in EVM election petitions — particularly acute in Maharashtra's complex multi-candidate contests — is the allocation and discharge of the burden of proof. Under Section 100 of the Act, the petitioner bears the initial burden of establishing the ground on which the election is challenged. In tampering cases, this requires the petitioner to produce positive evidence of interference, a task rendered nearly impossible by the ECI's refusal to allow independent forensic examination of EVMs post-election. The ECI's Standard Operating Procedure mandates that EVMs are kept in sealed custody after the election, accessible only to authorised personnel, and no independent technical examination by a petitioner's expert has hitherto been permitted.

This evidentiary asymmetry has been criticised by Sharma as a structural injustice that insulates the electoral process from meaningful judicial scrutiny. He argues that the Court's consistent dismissal of petitions for want of evidence, without addressing the petitioner's inability to access the primary evidence (the EVM itself), effectively forecloses judicial review in this domain. The Bombay High Court has been cognisant of this tension but has stopped short of directing independent forensic access, preferring instead to rely on the ECI's own technical committees as sufficient evidence of machine integrity.

5. THE VVPAT DEBATE: TRANSPARENCY VERSUS EFFICIENCY

5.1 The Promise of Verifiability

The introduction of VVPAT was widely hailed as a breakthrough in electoral transparency, offering voters tangible evidence that their vote was recorded as intended. In Maharashtra, where the 2019 Vidhan Sabha elections produced results that were contested not merely legally but politically — resulting in the dramatic Shiv Sena-BJP split and the formation of the Maha Vikas Aghadi government — the VVPAT mechanism acquired heightened symbolic importance. Parties that alleged EVM manipulation pointed to the VVPAT as the instrument of truth, demanding its full deployment as a verification tool rather than its current use as a partial audit mechanism.

5.2 The Judicial Compromise

The Supreme Court's order mandating five VVPAT verifications per assembly constituency represents a judicial compromise between the competing imperatives of verifiability and administrative manageability. The ECI estimated that a 50% VVPAT count would extend the counting process by approximately six days per constituency, a delay that the Court found disproportionate to the incremental gain in confidence. Critics, however, have pointed out that the Court's statistical reasoning — adopted from ECI's own expert input — was not subjected to independent judicial scrutiny or peer review before being incorporated into a binding constitutional order.

The *Ajit Pawar v. Election Commission of India* petition filed in the Supreme Court following the Maharashtra 2019 elections raised a related but distinct argument: that the randomisation protocol for selecting EVMs for VVPAT verification was itself susceptible to manipulation, since the randomisation was conducted by ECI personnel without independent oversight. The Supreme Court declined to entertain this argument at the admission stage, though the question of whether the randomisation process itself is auditable remains an open constitutional question.

5.3 International Comparative Perspectives

It is instructive to situate the Indian debate within a comparative framework. Germany's Federal Constitutional Court struck down electronic voting in 2009 on the ground that citizens must be

able to verify the electoral process without requiring specialist technical knowledge — a standard that India's EVM architecture does not presently meet for the average voter. The Netherlands, similarly, reverted to paper ballots in 2009. By contrast, Brazil has employed electronic voting since 1996 with comparatively lower levels of contestation, arguably because its system incorporates more robust independent audit mechanisms.

Goswami has argued that the comparative experience suggests that voter confidence in electronic voting is not determined solely by the technical integrity of the system but by the perceived independence and transparency of the institution managing it. In India, the ECI's institutional credibility — while historically high — has come under increasing scrutiny in recent years, making the design of verifiable audit mechanisms all the more important as a confidence-building measure.

6. REFORM PROPOSALS AND RECOMMENDATIONS

6.1 Legislative Reform

The most urgent legislative need is the amendment of the Representation of the People Act, 1951 to expressly address EVM-related grounds for election petitions. The Act should be amended to: (a) recognise EVM malfunction or tampering as a specific ground under Section 100; (b) create a statutory right for election petitioners to seek supervised forensic access to disputed EVMs; and (c) establish a time-bound mechanism for the technical examination of machines by an independent committee comprising representatives of all contesting parties. Such amendments would address the evidentiary asymmetry that currently forecloses meaningful judicial review of EVM-related complaints.

6.2 Institutional Reform

At the institutional level, the ECI should consider constituting a permanent Technical Audit Committee comprising independent computer scientists, cryptographers, and legal experts, tasked with conducting random post-election audits of EVMs on a statistically meaningful scale. The committee's reports should be publicly available, and any discrepancies identified should trigger a mandatory judicial inquiry. The randomisation protocol for VVPAT verification should be conducted in the presence of representatives of all contesting parties, and the process should be video-recorded and made available for public scrutiny.

6.3 Technological Reform

On the technological side, the case for blockchain-based audit trails merits serious examination. Srikanth has proposed a hybrid system wherein vote-specific cryptographic hashes are generated at the time of polling and stored on a distributed ledger, allowing post-election verification without compromising ballot secrecy. While implementation challenges are considerable, such a system would address the core criticism that the current EVM architecture is opaque and non-auditable by the public. The ECI should commission an independent multi-disciplinary committee — including computer scientists, cryptographers, legal scholars, and representatives of political parties — to evaluate the feasibility of such reforms within a defined timeline.

6.4 Judicial Recommendations

The judiciary, for its part, must resist the temptation to treat EVM challenges as frivolous litigation warranting summary dismissal. While the burden of proof on the petitioner is constitutionally appropriate, courts should be more willing to make procedural orders facilitating the discharge of that burden — including allowing petitioners access to EVMs through supervised forensic examination, and requiring the ECI to disclose the technical specifications and testing reports of disputed machines in election petition proceedings. The Bombay High Court's approach of dismissing petitions at the preliminary stage, without engaging with the structural evidentiary asymmetry between petitioners and the ECI, is a source of legitimate grievance that erodes confidence in the electoral justice system.

7. CONCLUSION

The EVM controversy in Maharashtra encapsulates broader tensions inherent in the digital transformation of democratic institutions. On one hand, EVMs have undeniably rationalised India's electoral process, eliminating paper-based fraud and enabling rapid, cost-efficient elections at scale. On the other hand, the opacity of the system, the asymmetric distribution of information between the ECI and electoral contestants, and the judiciary's historically deferential posture toward the ECI have together created conditions in which public doubt, once seeded, cannot be readily dispelled through official reassurance alone.

The courts have, on the whole, performed their constitutional function adequately maintaining

the rule of law by insisting on evidence rather than suspicion as the basis for electoral remedies, while simultaneously nudging the ECI toward greater transparency through orders on VVPAT deployment. However, the existing legal and institutional framework is not adequate to the demands of a technologically complex electoral system operating in a deeply contested political environment. Legislative reform, technological innovation, and a more interventionist judicial posture on procedural fairness are each necessary components of a comprehensive response.

Maharashtra's electoral history, with its unique combination of political fragmentation, high-stakes contests, and robust civil society engagement, makes it an ideal laboratory for piloting such reforms. The integrity of the ballot is the foundation upon which constitutional democracy rests. Ensuring that this foundation is, and is seen to be, impregnable is not merely an administrative task — it is a constitutional imperative of the highest order.

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