VOLUME 6 | ISSUE 4

INTERNATIONAL JOURNAL OF ADVANCED LEGAL RESEARCH

LAW RELATING TO PROTECTION, REGISTRATION AND MANAGEMENT OF UNCONVENTIONAL TRADEMARKS IN THE AGE OF ARTIFICIAL INTELLIGENCE IN INDIA AND THE EUROPEAN UNION

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ABSTRACT

Trademarks are a type of intellectual property designed to identify goods and services of the trader or an individual in case there is a sale. As one moves away from the traditional marks like logotypes, brand names slogans characters, and packaging styles towards the less conventional marks like scents music holograms, dynamic trademarks, and single-colour marks, there remains the question: how do you fix on paper and make a copy that's readable of a mark that either one can't see or it's impossible to put the mark in writing, for example, a sound trademark. This article discusses the registration and enforcement practices adopted by India and the European Union on non-traditional/non-conventional marks. And, it analyses the influence of artificial intelligence on both these areas. From being based heavily on graphical-representation requirements which were laid down in the cases of Sieckmann v Deutsches Patent- und Markenamt (2002) and Shield Mark BV v Joost Kist (2003), the European Union has moved towards a technology-neutral standard which is in fact a combination of Regulation (EU) 2017/1001 and Directive (EU) 2015/2436. Currently, in India, the graphical-representation requirement under Section 2(1)(zb) of the Trade Marks Act 1999 is still in force. Since the legislation did not have any changes from 1999, it led to conflicting legal decisions most Worth noting the Indian courts giving three different legal opinions on Louboutin's red sole mark which uses a single-colour trademark in Delhi High Court. After that part of the paper is devoted to analyzing the dual role played by artificial intelligence as

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(1) an administrative tool, like European Union Intellectual Property Office's ('TMview' and 'Early TM Screening'), and India's AI/ML search technology and IP Saarthi chatbot; As the law is developing, we can see different uses of AI as well, e.g. deepfakes and synthetical sound clones may constitute infringement. Then again, the disputes in the so-called metaverse/NFT space (like for instance Herms International v Rothschild, 2022) also show us the new infringement risk. The article further claims that despite the EU reform of 2017 being the first major change to the requirements to be a registrable mark, it was a limited reform as it could only cater to marks falling within the class of signs that it was possible to fix and reproduce in the audio and visual media. That means, for smell and taste trademarks as the case was left by the EU and it was still impossible to provide them with representation in any medium.

Keywords: unconventional trademarks; non-traditional trademarks; graphical representation; Trade Marks Act 1999; Regulation (EU) 2017/1001; artificial intelligence; sound marks; colour marks; metaverse.

1. INTRODUCTION

A trademark reveals the identity of the person who is behind a product in the eyes of the public (Trade Marks Act 1999 Sect. 2(1)(zb); Regulation (EU) 2017/1001, Art. 4). Earlier that role was carried out by visual signs as the visual signs only could be drawn on paper and could be compared in parallel at a glance. Current brands have their own identifying features like engine sounds, lighter clicks, certain specific coloure, jingles, and light choreography - all signs that registration office cannot and was never designed to record. India and the EU deal with the same basic dilemma - how a public register can record a sign which is not able to be drawn or illustrated - in contrasting ways. The EU completely gave up on the graphical representation via the Trade Mark Reform Package 2015-2017. India But in its Section 2(1)(zb), is still requiring graphical representation, even though Trade Marks Rules, 2017 do allow MP3 sound-mark registrations, which seem to clash with the parent statute (Trade Marks Rules 2017 r. 26). AI is now causing double disruption in this area. Firstly, as an administrative tool: the EUIPO's TMview and the 2025 Early TM Screening Tool will leverage AI image recognition and pre-filing risk assessments (EUIPO 2023 2025); India's Trade Marks Registry has launched a AI/ML-based search system that is accompanied by the generative "IP Saarthi" chatbot (IndiaAI, 2024) from September 2024. Secondly, it is a tool of infringement: generative AI has the capacities to generate deepfakes and

brand sound clones, and to generate NFTs of virtual goods that will be confusing in the marketplaces after being tested in the US context, e.g. Herms International v Rothschild, 2022 related to "MetaBirkin" NFTs. The paper traces the legal structure regulating nonconventional marks, points out where and how the fundamental doctrinal question - representational certainty vs. perceptual variability - appears in both systems, and then discusses from a legal standpoint the problems that the introduction of the technology causes to these systems, leading finally to a few concrete reform suggestions for India.

2. CONCEPTUAL FRAMEWORK

Neither of the two laws makes explicit reference to "unconventional." Section 2(1)(zb) states that only trademarks "capable of being represented graphically" and capable of distinguishing goods or services from each other can be registered. Section 2(1)(m) gives the definition of "mark" so widely that such signs as a logo, logo with name, product shapes, product packaging, etc. are included, and also "combination of colours." This is also the case under Regulation (EU) 2017/1001: Art. 4 says that "any sign" may be registered as a trademark. The regulation gives a non-exhaustive list (for example, "colours, shapes, and sounds" etc.) of the types of signs that can indicate goods. Broadly, "unconventional" is not a category in itself but it is a way of referring to different ways in which signs can be used to distinguish goods i.e. 3D/shape colour sound, motion multimedia hologram, position. (At the unregistrable stage) smell, taste and texture marks - each of these presents its own representational problems, and in fact, different regimes address them rather differently, i.e. successfully vs. poorly.

3. THE EUROPEAN UNION FRAMEWORK

3.1 Sieckmann and Shield Mark: The Graphical Representation Era

The regulation requiring a mark to be "capable of being represented graphically" was in force until October 2017 EU law (Regimbeau, 2023). When it comes to Sieckmann v Deutsches Patent- und Markenamt (Case C-273/00, 2002), CJEU found that the submission consisting of the scent description, a chemical formula, and a sample bottle could not fulfill any of the requirements of visual representation which besides being clear precise self-contained, easily accessible, intelligible, and objective (and so on), must be such that the graphical mark is instantly recognized as a sign by a person unskilled and not technically equipped and having no special knowledge

Apart from ordinary knowledge and information. These Sieckmann rules shut the EU register out of olfactory marks: since that time, no olfactory mark has been registered (Inventa, 2020). In Shield Mark BV v Joost Kist (Case C-283/01, 2003), the court enlarged and deepened these rule to include sound. The court found that a musical stave notation is sufficient to meet the requirements while either a textual explanation ("the first nine notes of Fr Elise") or a onomatopoeic transcription is found to be defective representation. So, the court decided that sound marks are Actually registrable but only via the limited representational medium that is essentially suitable for either rhythmic or tonal sounds, a restriction that was analogously applied to taste by the CJEU when Levola Hengelo BV v Smilde Foods BV (Case C-310/17, 2018).

3.2 The 2017 Reform: A Technology-Neutral Standard

The Directive (EU) 1515/2015 and Regulation (EU) 2017/1001 substituted the previous provision which allowed a sign to be graphically represented with a demand that a sign be presented "in a form that makes it possible for authorities and the general public to ascertain the protected subject matter clearly and precisely" (art. 15. b). Per the grounds, a sign can be presented "in any suitable form with the help of the general technology available to most users, " keeping the essence of the Sieckmann test while liberating it from the graphic form (EUR-Lex, 2017). Sending Regulation (EU) 2018/626 then dictates the appropriate format based on the category: sound signs - an audio file or musical notation; motion signs - video or sequential stills; multimedia signs - an audio-visual file; hologram marks - video, graphics or photo. There is no smell or taste registration since no current technology would be accurate enough (Dennemeyer, 2020). EU Intellectual Property Office statistics show the figures: 11,177 non-traditional marks applications by October 2020; 89% of them were shape or 3D marks, and there was still zero smell- and taste-related mark registrations in the period before the reform and afterward (Inventa, 2020).

3.3 Colour and Shape: Louboutin v Van Haren Schoenen BV

In Louboutin v Van Haren Schoenen BV (C-163/16, 2018) the Court of Justice of the European Union (CJEU) found that Christian Louboutin's red-sole mark was not a "shape" mark but a colour-position mark (and That means not a shape mark). Because of this it fell outside the functionalities excluded by Article 3(1)(e)(iii) of Directive 2008/95 (now Article 7(1)(e) Regulation (EU) 2017/1001). The mark was, in fact, Registrable - a fact which highlights the EU's

relatively coordinated stance on the registration of colour-position marks once they are distinctive and non-functional.

4. THE INDIAN FRAMEWORK

4.1 Section 2(1)(zb): An Unreformed Standard

Section 2(1)(zb) Trade Marks Act, 1999 describes a trademark as a mark that is "capable of being represented graphically" and at the same time "capable of distinguishing goods or services including shape and "combination of colours"; Section 2(1)(m) lists "mark" as a non-exhaustive and textually specified term list .Contrarily, like the EU, India has not done away with the graphical representation requirement. Yet, the Trade Marks Rules 2017 r. 26(5) does allow sound-mark filing by an MP3 recording (30 seconds) with musical notation (Upscale Legal, 2024) - a combination that neither reaches the EU's 2017 audio-file-only standard nor complies strictly with the graphical-representation requirement, and Because of this leaves commercially important audio files in statutory protection in vague terms.

4.2 Sound, Shape and Colour Marks in Practice

India has become a signatory to the Paris and Madrid agreements that are international treaties on protecting industrial property rights including trademarks. Per the internationally accepted practice, the proprietors of the trademarks will receive the protection only in those country(ies) whose laws they are following. Since sound, shape, and color marks are not recognized under the Trademarks Act 1999 India is not offering protection for these types of trademarks. Because of this, the owners must contact the suitable government bodies in the corresponding countries for filing trademark applications. Sounds, shape, and color marks are not considered as trademarks under the laws of India, so they are not given the protection in India through the trademark regime. Only through filing a registration in specific country(ies) owners will be granted the right to use the mark. The Trademarks Act, 1999 that applies to India doesn't provide for the registration of these marks. The owners are required to reach out and file with the agencies of different governments of their preferred countries.

5. COMPARATIVE ANALYSIS

Table 1 summarises the comparative position.

Category	India	European Union
Shape/3D	Registrable, s.9(3) functionality bar; strict secondary-meaning threshold	Registrable, Art.7(1)(e) bar; ~89% of non-traditional EU filings
Colour	"Combination of colours" only (s.2(1)(m)); single-colour status unresolved (Louboutin, 2017-19)	Single colours/colour-position marks registrable on distinctiveness (Louboutin v Van Haren, 2018)
Sound	MP3 + musical notation required (r.26(5))	Audio file alone sufficient (IR 2018/626)
Motion/multimedia	No dedicated filing category	Video/stills; audio-visual file (IR 2018/626)
Hologram	No clear filing procedure	Video, graphics or photograph (IR 2018/626, Art.3(3)(f))
Olfactory/gustatory	Not registrable in practice	Not registrable in practice; zero EU registrations

The technology-neutral standard adopted by the EU (Regulation (EU) 2017/1001, art. 4(b)) enables the integration of any future technological development of representational systems without the need for the further amendment; the Indian graphical representation is still the old version that is not consistent with its own more relaxed rules. Because of this inconsistency, it is the court and the Registro India have had to do a sort of ad-hoc reconciliation. Institute-wise, EUIPO has more AI capabilities. Their AI image search in TMview has been working since 2015 and they have connected them with TM5 database in 2023. In comparison, the Indian version was launched in 2024 and it hasn't been able to produce benchmarks that are as accurate as EUIPO's reported ~80% of accuracy in the image search. No binding precedents from either jurisdiction deal with AI-assisted infringement of atypical trademark; most of the available guidance is the U.S. non-binding decision of Herms International v Rothschild (2022).

6. ARTIFICIAL INTELLIGENCE: TOOL AND THREAT

6.1 AI as Administrative Instrument

The EUIPO eSearch plus (2015) and TMview are databases that search the features and designs of millions of trademarks such as their colours, shapes and textures. In November 2025 Early TM Screening tool adds pre-filing checking of descriptive features, offensive contents and conflict risks (EUIPO, 2025; Intepat IP, 2025). India's Vienna Classifier-based image search and chatbot IP Saarthi perform a similar task (IndiaAI, 2024). In essence, reliability depends on the kind of product being considered and the results of published benchmarks (EUIPO logo search at ~80%, up to ~97% for specialised commercial tools) are purely visual comparison related; spectrogram, motion-sequence and hologram comparison do not have any benchmarks (MJZanon IP, 2025). EUIPO as well as the USPTO make it clear that their AI tools are there to assist but not replacing the judgment of human trademark examiners (Griffith Barbee, 2026)- a warning that is also applicable to India's newer system.

6.2 AI as Infringement Vector

Generative AI is creating the kind of sensory product content that is traditionally protected by the extraordinary trademark regime. The resolution of a group named INTA about deepfakes from last February 2025 recognizes that generative technologies have drastically decreased the amount you have to pay to get really convincing brand images (Law.asia, 2026). In a 2022 New York state federal trial, a judge decided that Truth is a series of NFTs were named "MetaBirkin" is sufficient cause for an ordinary person to think that they have something to do with the Herms brand, This way denying the creator's defense based on freedom of expression. This is based on In reality the creator had created a lot of deliberate confusion (590 F. Supp. 3d 647, 2022). One month after the decision of the judge the trial ended with a jury ruling for the four plaintiffs. The jury found infringement and dilution, cybersquatting and unfair competition. An award of USD 133,000 has been set by the jury (CSDisco, 2026). Really AI tools enable counterfeit listings to be created in mass and that brand-handle cybersquatting can now happen automatically increases the danger of intellectual property infringement at a level that cannot be detected by the traditional methods of enforcement. (Depenning, 2025)

6.3 AI-Generated Marks: An Unaddressed Attribution Gap

None of the acts mentioned have limited trademark registration to works of human creativity; a sound or shape logo that is created by an AI, as such a case, is eligible for protection, subject to proof of distinctiveness and use requirement, in exactly the same way as other trademarks. Though, neither statute specifies liability in such a case where a sign confusingly similar to an unconventional mark is created by an AI system independently - such a situation being the legal gap which may well either call for a reliance of existing infringement doctrines to place a liability on the enterprise responsible for deploying the AI in question or the introduction of new legislation to address this scenario as is the case with, for example, the EU AI Act (Regulation (EU) 2024/1689) which has neither been applied to trademarks nor will it be before the implementation of trademark law happens.

7. THE CORE ISSUE

India and the EU both sought very different remedies for a common issue: a register will only work if a sign is the same and can be compared, but many non-traditional signs are essentially variable. The EU's 2017 reform moved the problem away rather than solving it - the categories which can be visually-fixed (sound motion multimedia, hologram) were adopted while smell, taste and texture were left untouched as the problem was never with the visual medium but the inherent fuzziness of multisensory perception. No EU smell registrations before and after the reform substantiate these claims (Inventa, 2020). The Indian situation is even more problematic for no reason related to a distinct representational problem but for Really they have not done the EU kind of reform at all: Section 2(1)(zb) continues to demand graphical representation, meanwhile Rule 26(5) allows for audio submission; also, the "combination of colours" wording in Section 2(1)(m) bars single-colour marks with mere characters, regardless of the mark's distinctiveness. It was not any perceptual challenge that led to the Louboutin case decided by three coordinate benches of the Delhi High Court but this textual flaw. Rather than eliminating problems like this, AI makes them worse: administrative AI can't be more trustworthy than its training data, and for non-conventional categories, the training data is small and not benchmarked; generative AI goes for sensory input directly, like sound-image-rendering-the virtual that the trademark laws for unconventional signs set out to protect at a level the statue infringement doctrine was not conceived to handle.

8. RECOMMENDATIONS

(1) Change Section 2(1)(zb) of the Act so a graphical depiction is replaced by a technology-neutral standard which resembles Article 4(b) of Regulation (EU) 2017/1001 only loosely. The adaptation shall include changes from the said Regulation to conform to Indian conditions. (2) Alter the words in Section 2(1)(m) "a combination of colours" to "a single colour or combination of colours" and make either the Supreme Court or a full High Court Bench decide on the important legal issue of singlecolour mark which remained unresolved since 2019. (3) Using regulations, define filing procedures by categories like sound marks to be filed in audio file formats, motion marks to video or still files and so on, after Implementing Regulation (EU) 2018/626. (4) Demand that the Controller General of Patent, Designs and Trade Marks (CGPDTM) should put out category-specific AI accuracy standards and be under human-review protocol for refusal or acceptance based on an automated similarity score. (5) Make it clear through the Act or jurisprudence that the commercial entity deploying the AI bears liability and the usage of protected trademarks in a virtual/NFT/metaverse setting is "use during trade." (6) Continue collaborating with EUIPO under TM5 setup to India's AI tools for benchmarking and quality-assurance.

9. CONCLUSION

The idea of unconventional trademarks demonstrates the conflict between the trademark register's demand for a certain level of certainty and how the industry demands the protection of brand identity regardless of the way it is presented to the senses. The EU's path from Sieckmann and Shield Mark to finally being free of technology limitations in Regulation (EU) 2017/1001 has been a serious but limited step forward, sound motion multimedia, and hologram marks actually benefited from the change, but smell and taste didn't. Indian law still sticks to graphical-representation requirement, which is versus its subordinate rules that are more lenient. The country's colour-marks clause was another example in which a true but unresolved judicial contradiction ensued. Another layer of change coming to trademarks at a pace different from AI development in other areas is the use of AI: with AI it's going to be even faster to examine, but the lack of accuracy or consistency in reliability could also happen for the non-traditional categories. Besides this, there is yet another risk of infringement that is being raised which AI will create and which is not even touched upon, for India for its Trade Marks Act (1999) and with EU for Regulation (EU) 2017/1001. India's goal is not to simply copy the EU's standard, but rather to resolve the existing conflict between Sections 2(1)(zb) and 2(1)(m) as well as how they have been

applied practically through the years with the contemporary AI-based use of brand identity without legal recognition.

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