



INTERPLAY OF ARTIFICIAL INTELLIGENCE AND TECHNOLOGY IN THE INSOLVENCY AND BANKRUPTCY ECOSYSTEM: AN ANALYSIS

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ABSTRACT

An effective and robust system of insolvency is instrumental for a nation's economic growth and stability. For decades India had fallen behind the global trend but in 2016 India took an unprecedented step by introducing Insolvency Bankruptcy Code, 2016 to improve its domestic insolvency regime. With the adoption of a strong, contemporary, and comprehensive bankruptcy framework, India has made a significant advancement in the domain of insolvency and bankruptcy legislation. Each major development in the area of law has been nothing short of revolutionary so as the interface of Artificial Intelligence and Law. The world today is not the one we were born into. The way we communicate, conduct business, shop, live, and work has altered as a result of technology in recent years. It is now an essential component of existence and has assimilated into our daily routine. The government and the Insolvency and Bankruptcy Board of India have been working continuously to speed up the insolvency resolution and liquidation procedure in India. With the aid of technology and with assistance of Artificial Intelligence, it can help to reduce the delay in corporate insolvency resolution process, unnecessary piling up of the cases before the adjudicating authorities, and can make the entire process much simpler and clearer for all the interested stakeholders involved in the process. The aim of the article is to provide an insight into the future and examine how technology can change the way when insolvency rules are applied to resolution process and liquidation stages enhancing the efficiency of insolvency professional which can aid in obtaining desired outcomes.

I. Introduction

"...AI is present to provide a facilitative tool to judges in order to recheck or evaluate the work, the process, and the judgments"

-Justice (Dr). D.Y Chandrachud

India has frequently been criticised for falling behind the other nations in the development of its corporate economy by failing to follow trends in the western countries.¹ In line with the vision of

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India's prime minister Narendra Modi, various initiatives had been undertaken so as to improve the international image of India's corporate economy by introducing ground-breaking legislation that will go a long way in paving the path for economic growth and development in the country. India had made a substantial improvement in the corporate sector's legalprocedural since 2014. The laws which were in existence to tackle the insolvency and bankruptcy had aged and grown obsolete, impeding the expansion and development of businesses.² Significant improvements to the financial and corporate ecosystem have been made since the new government was elected in 2014, including the implementation of the goods and services tax, the amended Arbitration and Conciliation Act, labour reform, and, most importantly, the Insolvency and Bankruptcy Code, 2016.

The introduction of the Insolvency and Bankruptcy Code, 2016 (herein after referred to as Code)has been considered as the most important economic reform in the history of Indian legislative framework as it has revamped the entire credit ecosystem of India.³It marked a paradigmshift from the erstwhile existing laws which were highly fragmented, ineffective, and insufficient to address and resolve the domestic Insolvencies.⁴ The Code provides a consolidated mechanism for resolving the corporate Insolvency in India. By separating the business and judicial components of the insolvency and bankruptcy procedure, it aims to increase efficiency within the insolvency and bankruptcy law framework. The legislative framework governing the liquidation, rehabilitation, and rebirth of failing commercial companies has been significantly reinforced, which has raised India's ranking on the ease of doing business index. The Code switches from the previous strategy of "debtor in possession" to "creditor in possession"embarking a significant change.

Insolvency and restructuring could be compared with the corporate version of critical care, bringing together a team of specialists to provide certain businesses a palliative care while helping the others on the road to recovery.⁵The procedure of insolvency involves the application of established laws, rules, and procedures to address unique conditions that vary between companies. This typically entails the management of extensive collections of corporate papers. The integration of rules and variables renders this domain very suitable for the use of artificial intelligence in the realms of data acquisition, categorising, and procedural streamlining.And just as in medicine, advanced technology is transforming how critical care is delivered, identifying key challenges, and smoking guns and

¹ Ankeeta Gupta, "Insolvency and Bankruptcy Code 2016: A Paradigm Shift within Insolvency Laws in India" 36 *The Copenhagen Journal of Asian Studies* 76 (2018).

² Rajeswari Sengupta (*etal*), Evolution of the Insolvency Framework for Non-financial Firms in India Indira Gandhi Institute of Development Research (June, 22, 2016). Available at: <http://www.igidr.ac.in/pdf/publication/WP-2016-018.pdf> (Last visited on 11th August 2023).

³ Saumy Kanti Gosh and Saket Hishikar, "Economic and Financial Impact of IBC" *Quinquennial of Insolvency and Bankruptcy Code, 2016* 109 (Insolvency and Bankruptcy Board of India, New Delhi, 2021).

⁴ M.S Sahoo, "A Journey of Endless Hopes" *Insolvency and Bankruptcy Code a Miscellany Perspectives* 4 (Insolvency and Bankruptcy Board of India, New Delhi, 2019).

⁵ Joanna Goodman "Artificial Intelligence in Insolvency Work: Transforming Critical Care." *Euro Fenix* 8 (2018). Available atfile:///C:/Users/Sandhya/Downloads/SR-EU-2018_AUTUMN-AI%20(2).pdf. (last visited on 10th may 2023).

predicting outcomes more accurately to improve a patient's chances, manage uncomfortable procedures and terminal cases with care and efficiency while, importantly, providing pain relief throughout⁶.

What is Artificial Intelligence?

Before proceeding to deliberate upon the role of technology and Artificial Intelligence (AI) in the Insolvency and Bankruptcy ecosystem, it is important to discuss what do we understand by the concept of Artificial Intelligence? John McCarthy, known as the “father of AI,” coined the term “Artificial intelligence”.⁷

In 1848, an anonymous author used the same word in legal scholarship to lament the ineffectiveness of the jury system.⁸ The middle of the 1950s marked the beginning of AI as a distinct topic within the discipline of computer science.⁹ It is generally agreed that John McCarthy, Marvin L. Minsky, Nathaniel Rochester, and Claude Shannon first used the term “artificial intelligence” in a research proposal they wrote in August 1955.¹⁰ One of the pioneers of the field, Marvin Minsky, defined AI as “the science of making machines do things that would require intelligence if done by man” in 1968.

There are various ways to define the term, but one place to start with is by thinking about the kinds of issues that AI technology is frequently applied to solve the problem. In that vein, we could characterize AI as the use of technology to automate processes that “normally require human intelligence”.¹¹ This definition of AI stresses upon the fact that it is typically employed to automate certain kinds of tasks that are deemed to include intelligence when performed by humans.¹² Bruce and Thomas stated the study of cognitive processes through the conceptual

⁶ *Ibid.*

⁷ S.L. Andresen, “John McCarthy: Father of AI” 17 *IEEE Intelligent system* 84 (2002) available at: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1039837>. (Last visited on 31st August 2023).

⁸ Alzbeta Krausova, “Intersection between law and Artificial Intelligence” 27 *International Journal of Computer* 55-56 (2017).

⁹ Pamela Mc Corduck, *Machine Who Think* (A.K Peters Ltd, 2004) (describing history surrounding the Dartmouth Conference and its lasting effects in AI community).

¹⁰ Raja Kamal Ch and Biju M, “The Wave of Innovation Artificial Intelligence and IP rights” 12 *International Journal of Aquatic Science* 863 (2021).

¹¹ Artificial Intelligence, English Oxford Living Dictionaries, https://en.oxforddictionaries.com/definition/artificial_intelligence <https://perma.cc/WF9V-YM7C>. (last visited on 12th May 2023); See also Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach* (Pearson, 3rd Ed. 2010).

¹² Sonia K. Katyal, “Private Accountability in the Age of Artificial Intelligence”, 66 *UCLA Law Review* 59 (2019).

frameworks and toolkits of computer science is what we comprehend when we talk about artificial intelligence.¹³

Playing chess, solving calculus problems, discovering new mathematics, comprehending short stories, learning new concepts, analysing visual scenes, diagnosing diseases, and so on are all examples of the kinds of intelligent behaviour that fall under the umbrella of artificial intelligence.¹⁴ So, to simply describe an intelligent machine that possesses the capacity for independent thinking, comprehension, and action, as well as the ability to emulate selected human behaviours, may be characterised as Artificial Intelligence.

II. Interaction of Artificial Intelligence and Law

After providing a fundamental overview of artificial intelligence, it is time to move on to the specific applications of AI in legal practice. At its core, the concept of “AI and law” refers to the implementation of computer and mathematical processes with the goal of rendering the legal system more comprehensible, tractable, helpful, accessible, and predictable.¹⁵

Since the middle of the twentieth century, researchers have actively applied concepts from computer science and artificial intelligence to the field of law.¹⁶ Gottfried Leibniz, the co-inventor of calculus and a lawyer by profession, was an early proponent of applying mathematical formalisms to legal problems. The trajectory of AI development in the legal field has nearly tracked that of the field as a whole.¹⁷

Knowledge representation and rule-based legal systems were early priorities for AI in law, as they were for AI in general.¹⁸ However, like the rest of the AI field, the focus in AI and law has shifted away from knowledge-representation technique towards machine-learning-based approaches beginning around 2000.¹⁹

Interplay of Technology and AI in Insolvency Ecosystem

¹³ For one of the earliest discussions of AI and law, See Bruce G Buchanan, and Thomas E. Headrick “Some Speculation About Artificial Intelligence and Legal Reasoning” 23 *Stanford Law Review* (1970) See Also; Gardner, Law Applications, in the Encyclopaedia of Artificial Intelligence 456 (S. Shapiro ed. 1989).

¹⁴ Edward L. Rissland, “Artificial Intelligence and Law: Stepping Stones to a Model of Legal Reasoning” 99 *The Yale Law Journal* 1963 (1990).

¹⁵ Dickfos, Jennifer (et al), “The Impact of Artificial Intelligence on the Insolvency Profession” *Insolvency Law Bulletin* (2017).

¹⁶ Frans Coenen and Trevor Bench-Capon, “A Brief History of AI and Law”. Available at https://cgi.csc.liv.ac.uk/~frans/KDD/Seminars/historyOfAIandLaw_2017-12-12.pdf. (Last visited on 15th May 2023).

¹⁷ *Ibid.*

¹⁸ Christopher Collins, Denis Dennehy, Kieran Conboy, Patrick Mikalef, “Artificial intelligence in information systems research: A systematic literature review and research agenda” 60 *International Journal of Information Management* 2 (2021)

¹⁹ *Ibid.*

Technology is often a critical element that enables a bankrupt company to turn itself around and become a competitive business, although it is often the most overlooked transformation aspect in bankruptcy.²⁰ Since we are living in a tech driven era, technology plays a very important role in our society. Artificial intelligence is rapidly changing the way litigation and bankruptcy cases are being handled. On high-volume document-review cases, AI systems are being used to improve the efficiency and accuracy of document analyses.²¹ The world today is not the one we were born into. The way we communicate, conduct business, shop, live, and work has altered as a result of technology in recent years. It is now an essential component of existence and has assimilated into our daily routine. Technology plays a very vital role especially after the covid outbreak which has shifted everything on online mode. Everything today is at the click of our hand from ordering food and grocery to attending online lecture.

Use of Technology and AI in Insolvency Process

The Insolvency and Bankruptcy Code, 2016 fundamentally re-oriented the Indian financial distress resolution framework and has driven a paradigm shift towards instituting a predictable, market-led, and time-bound insolvency and bankruptcy system in India.²² However, evidences show that legal proceedings under the Code are being plagued by prolonged delays, which is antithetical to the Code's objective and purpose.²³ Informational asymmetry and lack of access to reliable financial information is an observed cause of delay in this context and to address this, Code builds measures like reporting requirements and mandates Information Utilities (IUs) to boost informational synergies between various stakeholders.²⁴ Yet it appears that these measures have not proved sufficiently efficacious.²⁵

²⁰ Shannon Stucky Pritchett and Rachel Chesley, Rethinking Bankruptcy the importance of focusing on Talent, available at: <https://www.fticonsulting.com/insights/articles/rethinking-bankruptcy-importance-focusing-technology> (last visited on 18th February 2023).

²¹ Jarrod Munro and Emily Jarman, "The Impact of AI on the Insolvency Industry" available at: <https://www.cornwalls.com.au/the-impact-of-ai-on-the-insolvency-industry/> (last visited on 21st August 2023)

²² Chatterjee, Sreyan (et al), "An Empirical Analysis of The Early Days of The Insolvency and Bankruptcy Code, 2016", 30 *National Law School of India Review* 95-97 (2018), available at: <https://www.jstor.org/stable/26743938> (last visited on 18th February 2023)..

²³ M.S Sahoo and Anuradha Guru, "Indian Insolvency Laws" 45 *VIKALPA The journal of decision making* 72-75 (2020).

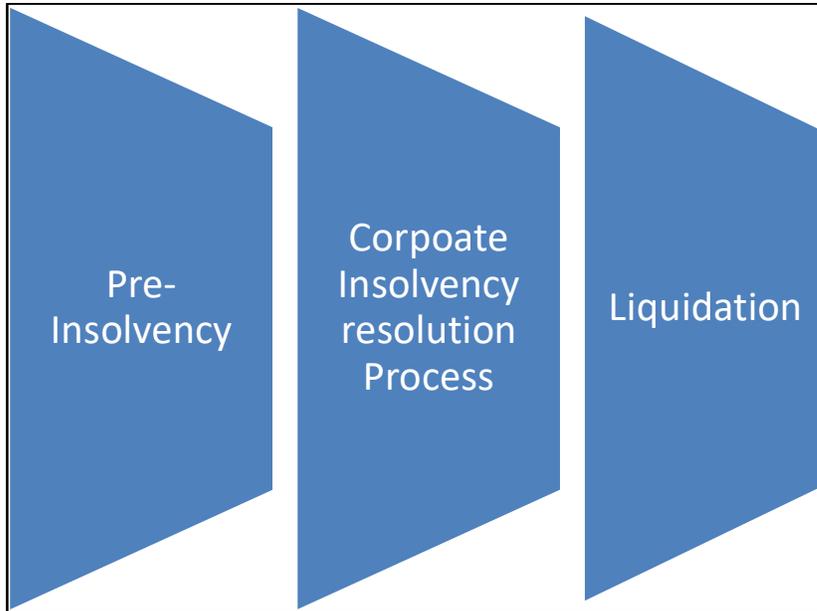
²⁴ Ankeeta Gupta, "Addressing Challenges of Information Asymmetry in Financial Sector using Information Utility" 50 *University of Western Australia Law Review* available at: https://www.able.uwa.edu.au/_data/assets/pdf_file/0009/3687921/3.-Addressing-Challenges-of-Information-Asymmetry-in-Financial-Sector-Using-Information-Utility_.pdf (last visited on 19th August 2023).

²⁵ Debanshu Mukherjee and Aditya Ayachit, "Delays and Information Asymmetries: Can Block Chain Help?", 5th October 2021, Available at: <https://vidhilegalpolicy.in/research/ibc-delays-and-information-assymetries-can-blockchains-help/>. (last visited on 15th February 2023).

Due to the need for concerned parties (like resolution professionals and creditors) to run from pillar to post in order to determine the financial position of the corporate debtor and obtain pertinent information regarding its debts and defaults, information asymmetry and lack of access to reliable financial information about the corporate debtor that is undergoing insolvency are frequently a major cause of procedural delays.²⁶

Technology Impacting Three-stages of Insolvency.

Figure-1- Three Stages of Insolvency



Source: <https://ibclaw.in/blog/>

Pre-Insolvency

Due to the lengthy and demanding nature of the insolvency procedure in India, elaborated strategies and papers must be created. Predicting insolvency at an early stage or pre-insolvency stage is one feasible option for speeding up the process.²⁷ Investors who can anticipate a company's collapse will be in a better position to manage risks. Prior to technological improvements, experts used to make predictions about insolvency based on a company's financial condition. The introduction of AI, however, has been a breakthrough in

²⁶ *Supra* note 27.

²⁷ Jane Colstone and Christian Toms "The Role of Artificial Intelligence and Technology in Global Bankruptcy and Restructuring Practices. *available at:* <https://brownrudnick.com/article/insol-international-the-role-of-artificial-intelligence-ai-and-technology-in-global-bankruptcy-and-restructuring-practices/> (last visited on 18th August 2023).

the assessment of insolvency because it has the power to completely transform the procedure in terms of time and resource efficiency.²⁸

During the evaluation of insolvency, corporations accumulate enormous quantities of data to aid them in meeting the demands of their customer base and attaining the maximum level of profitability.²⁹ The management of huge amounts of data, characterised by its substantial volume, rapid velocity, and diverse variety, commonly referred to as Big Data, necessitates a significant investment of time when undertaken by human agents.³⁰ In contrast, AI algorithms have been specifically engineered to effectively handle databases of such magnitude within a significantly reduced timeframe and resource allocation, circumventing the otherwise extensive demands. In addition, experts in the field of AI are incorporating various machine learning techniques, such as logistic regression, support vector machine, lasso regression, bagging, and decision tree, to effectively predict insolvency.³¹

CIRP (Corporate Insolvency Resolution Process)

The corporate insolvency resolution process is initiated under the code when the corporate debtor or creditors make default in payment.³² It involves various procedure from filling of application, initiation moratorium period, formation of committee of creditors, appointment of resolution professionals and so on. It is exhaustive process which involves big data which is generally handled by the resolution professions. The induction of AI in Corporate Insolvency Resolution Process (CIRP) can significantly reduce the time consumption as AIs are designed to manage such Big Data with ease. AI can help Resolution Professionals in quick and firm decision-making by evaluating the Key Performance Indicators of a business.³³ AI is able to find connections between performance indicators and insolvency

²⁸ Sakshi Pandey and Harshvardhan Singh Sikarwar, Placing the Artificial Intelligence on the Insolvency Spectrum. *available at: <https://ibclaw.in/placing-the-artificial-intelligence-on-the-insolvency-spectrum-an-analysis-by-sakshi-pandey-and-harshvardhan-singh-sikarwar/>* (last visited 15th February 2023).

²⁹ Tibor Kezelj and Rudlof Gruenbichler “A Systematic Literature Review on Corporate Insolvency Prevention using Artificial Intelligence Algorithms” 16 *Journal of Strategic innovation and sustainability* (2021).

³⁰ Franco Varetto “Genetic Algorithms Applications in Analysis of Insolvency risk” 22 *Journal of Banking and Finance* 15 (1998).

³¹ *Ibid.*

³² Insolvency and Bankruptcy Code, 2016 s. 6. This section states out the person who can initiate the CIRP. Where any corporate debtor commits a default, a financial creditor, an operational creditor, or the corporate debtor itself may initiate corporate insolvency resolution process in respect of such corporate debtor in the manner as provided under this Chapter.

³³ Samal, Manohar. (2022). International Insolvency, Bankruptcy Law and Artificial Intelligence. *Available at: https://www.researchgate.net/publication/359082201_International_Insolvency_Bankruptcy_Law_and_Artificial_Intelligence* (last visited on 15th August 2023).

risk, which can be used to warn organisations before they fail.³⁴ These AI algorithms might be used by investigators to do file discovery searches on important email servers and storage repositories.³⁵ The AI algorithm improves its capacity to identify sources and documents, hastening the development of cases and the dissemination of results.³⁶ As a result, there is a significant reduction in the time between filing and the start of the CIRP. In the near future, the interaction of AI with CIRP can increase professionals' efficiency while concurrently reducing cost. Recently in a statement issued by National Company Law Tribunal (NCLT), Justice Ramalingam Sudhakar said "One aspect for early resolution is the development of Artificial Intelligence technology..."³⁷"We are focusing on leveraging artificial intelligence and standardisation of processes. This will help in reducing delays. We are also focused on evolving a code of best practices so that there is certainty in decision making."³⁷

Liquidation

Time-bound liquidation has been a cornerstone of IBC,2016 since its inception, although it has not yet been accomplished. The liquidator must complete the liquidation procedure within a year in accordance with the Insolvency and Bankruptcy Board of India (Liquidation Process) (Amendment) Rules, 2019.³⁸ But according to the most recent Insolvency and Bankruptcy Board of India (IBBI) data, more than 79% of all active liquidation processes have gone over the allotted time period.³⁹ Authorities have been working hard, which is why the IBBI amendment on streamlining liquidation was released in June 2022.⁴⁰ The excessive delay in the liquidation process has interfered with the goal of the code, which is to maximise

³⁴ Jose Garrido (etal), "The Use of Data in Accessing and Designing insolvency systems" International Monetary Fund (2018), available at: <https://www.elibrary.imf.org/view/journals/001/2019/027/article-A001-en.xml>. (last visited on 15th August, 2023).

³⁵ Jose Garrido (etal), "The Use of Data in Accessing and Designing insolvency systems" International Monetary Fund (2018), available at: <https://www.elibrary.imf.org/view/journals/001/2019/027/article-A001-en.xml>. (last visited on 15th August, 2023).

³⁶ Akshaya Kamalnath, "The Future of Corporate Insolvency Law - A Review of Technology and AI Powered Changes", available at: <https://deliverypdf.ssrn.com/delivery.php?ID=413074031111067094006080125076027106002054027061023062027093010090013017030100069124042100017007024022045012108086094020028099039010011061018095097097092082093014067050087064064117122100089011120028091064065080001086107001070096073095122122016090114116&EXT=pdf&INDEX=TRUE> (last visited on 19th August 2023).

³⁷ The Economic Times, "Artificial Intelligence could be used for early resolution of matters say NCLT President" Available at: <https://economictimes.indiatimes.com/news/india/artificial-intelligence-could-be-used-for-early-resolution-of-matters-says-nclt-president/articleshow/90464442.cms?from=mdr> (last visited on 22 Aug 2023).

³⁸ Insolvency and Bankruptcy Board of India (Liquidation Process) (Amendment) Regulations, 2019. Available at: https://www.ibbi.gov.in/webadmin/pdf/whatsnew/2019/Jul/Liquidation%20Regulations%2025072019%20final%20English_2019-07-25%2020:13:32.pdf (Last Visited on 11th August 2023).

³⁹ Insolvency and Bankruptcy Board of India, "Discussion paper on streamlining the Liquidation Process" Available at: <https://ibbi.gov.in/uploads/whatsnew/b3a47a6df67ffb00832dc7baec47123c.pdf> (Last Visited on 11th August 2023).

⁴⁰ *Id.*

value of assets.⁴¹ A supervisory committee, a mandate on a shorter time restriction, and other IBBI redressal recommendations require creative solutions to be successful. One such innovation is the incorporation of AI and data analytics tools into the liquidation process.

Apart from these there is another important challenge which needs to be looked after is inconsistency in the e-auction. IBBI suggested a number of corrective measures, including a specific auction portal, clear gaps between subsequent auctions, etc.⁴² Despite these recommendations authorities will face the problem while implementing these suggestions. In such scenarios use of the artificial intelligence will come as a saviour as there are promising AI tools that utilise Machine Learning and perform optimal auctions. Because the liquidator is currently alone responsible for handling both traditional and non-traditional data processing, the issue of time-bound liquidation still exists.

III. International Perspective

The involvement of courts in formal insolvency procedures is traditionally been significant, thus warranting an examination of the potential transformative effects of technology on court processes. In recent years, a deliberate endeavour has been undertaken to digitise and automate diverse processes and actions within the court system. The ongoing global pandemic has served to intensify and concentrate these efforts, thereby directing attention towards the advancement of this trajectory. In Developed nations like the United States and the European Union, AI appears to be accepted in the legal system, including insolvency. Insolvency laws have benefited greatly from the introduction of artificial intelligence technologies like Data 61, Data Lex AI, and ROSS, which are trained for sophisticated analytics, modelling, and scenario planning based on financial performance.⁴³ With the creation of its AI tool “Accelerator,” which helped the professional service firm provides

⁴¹ Ravi Mittal, “Leveraging the Behavioural Change”. Available at: <https://ibbi.gov.in/uploads/resources/2022-11-16-184743-zunjid-92a2b5cb9c6906035c2864fa225e1940.pdf> (Last Visited on 23rd August 2023)

⁴² Insolvency and Bankruptcy Board of India, “Discussion Paper on Streamlining the Liquidation Process” available at: <https://ibbi.gov.in/uploads/whatsnew/b3a47a6df67ffb00832dc7baec47123c.pdf> (Last Visited on 11th August 2023).

⁴³ Aditya Narvekar and Debashis Guha, “Bankruptcy Prediction using Machine Learning and an Application to the Case of the COVID-19 Recession, Data Science in Finance and Economics”. Available at: <https://www.aimspress.com/article/doi/10.3934/DSFE.2021010?viewType=HTML> (Last Visited on 23rd August 2023).

good outcomes in the insolvency procedure, LDM Global⁴⁴ can be considered a classic example of the deployment of AI.⁴⁵

As a result of its extraordinary legislative powers and in reaction to the economic crisis, the Colombian government issued a decree in 2021 allowing the use of artificial intelligence in the management of insolvency operations. In the same year, the Superintendence of Companies, a governmental entity that has served as Colombia's bankruptcy court for nearly fifty years, has implemented novel digital functionalities into its Insolvency Module (MI, denoting its Spanish acronym).⁴⁶ The implementation of this artificial intelligence tool, which is conveniently accessible through the agency's website, introduces a novel and transformative encounter for users engaging with the insolvency system. The same year, the UK government made good on its commitment to implement a “national AI strategy” to oversee AI governance in the nation and promote the use of AI in law and enforcement, including insolvency laws.⁴⁷ The electronic pilot method was implemented at the Rolls Building Jurisdictions in London in 2015.⁴⁸ Within this framework, which has currently been mandated in certain judicial settings, electronic filing, commonly referred to as e-filing, is accessible around the clock.

Portugal has demonstrated a proactive approach in implementing diverse technological solutions aimed at streamlining and digitalizing court procedures. Citius, an exemplary platform, facilitates the accessibility and utilisation of its services by esteemed members of the legal profession, including judges, public prosecutors, lawyers, solicitors, enforcement agents, and insolvency practitioners.⁴⁹ Finland in July 2019, made an amendment to its

⁴⁴ LDM Global delivers eDiscovery, AI Analytics, Forensics, Document Review & Contract Management solutions to Corporations, Government Agencies, and Law Firms. Its Insolvency experts help to unravel the mysteries of insolvent entities by leveraging technology to build chronologies of events, perform tracing exercises and uncover whether there was fraud using bank statements to follow the money, etc.

⁴⁵ Gavurova Beata (E.tal) (2022). Artificial Intelligence in predicting the Bankruptcy of Non-financial Corporations. 1217 *Oeconomia Copernicana* (2022), available at: <http://economic-research.pl/Journals/index.php/oc/article/view/2149/1992> (Last visited on 22nd August 2023).

⁴⁶ Nicolas Polania Tello, “Columbia is using AI to improve Insolvency Proceedings” available at: <https://www.dlapiper.com/insights/publications/panorama/2022/colombia-is-using-ai-to-improve-insolvency-proceedings> (Last Visited on 25th August 2023).

⁴⁷ Bianca Piachaud-Moustakis, “An Overview of the UK’s National AI Strategy” 46 *Pharmaceutical Technology* (2022).

⁴⁸ Akshaya Kamalnath, “The Future of Corporate Insolvency Law - A Review of Technology and AI Powered Changes” Available at: <https://deliverypdf.ssrn.com/delivery.php?ID=413074031111067094006080125076027106002054027061023062027093010090013017030100069124042100017007024022045012108086094020028099039010011061018095097097092082093014067050087064064117122100089011120028091064065080001086107001070096073095122122016090114116&EXT=pdf&INDEX=TRUE> (Last Visited on 19th August 2023).

⁴⁹ “Towards People-centred and Innovative Justice in Portugal: Case Study Highlights”. Available at: <https://www.portugal.gov.pt/download->

Bankruptcy Act with the aim of addressing many issues, including the enhancement of administrative efficiency in the implementation of the legislation, and digitising the same.⁵⁰ The revisions encompassed the reduction of administrative expenses and the mitigation of judicial intervention in order to expedite legal proceedings.

As a result of these technical developments, it can be deduced that AI is more widely applicable in insolvency law enforcement than it is in India. Recently, the government of India has extended an invitation to solicit valuable insights and opinions pertaining to the intended modifications to the insolvency legislation. The proposed modifications encompass the amalgamation of diverse stages within the insolvency procedure onto a unified electronic platform.

IV. Conclusion

Introduction of Insolvency and bankruptcy code, 2016 has been a ground breaking legislation which has revamped the entire credit ecosystem of the country. There is no doubt in saying that the code has resolved the domestic insolvency of the country to a greater extent but the reality begs to differ as there subsists a backlog of insolvency cases.⁵¹ The worldwide Covid-19 outbreak made the backlog even worse and encouraged the officials to suggest changes to the IBC regime. Sushant Sarode, Director, CRISIL Ratings Ltd, said that “The IBC’s effectiveness can be increased using CDE approach, where C stands for *Capacity augmentation*, D for *Digitalisation* and E for *Expansion of pre-pack resolutions* to large corporates.” Although IBBI has taken various corrective measures like consolidation of multiple insolvency procedure stages onto a single electronic platform⁵² but, AI acceptability is still lacking so using technology is not a choice, rather it is the need of current situation. In this article authors have discussed how the use of AI can improve the various stage of insolvency like predicting of the insolvency at early stage and handling the Big Data that can help the resolution professionals in quick and firm decision by evaluating the key performance indicators of the business. Further the discourse surrounding advancements in different jurisdictions have been deliberated upon like Colombia deployed an artificial

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⁵⁰ “Amendment to the Finnish Bankruptcy Act Approved” Available at: <https://www.borenium.com/legal-alerts/2019/05/17/amendments-to-the-finnish-bankruptcy-act-approved-today/> (Last Visited on 24th August 2023)

⁵¹ Falling Recovery Rates and Increase in Resolution Time Dent IBC’s Success, says CRISIL”, The Hindu (Nov.24, 2023). Available at; <https://www.thehindu.com/business/falling-recovery-rates-and-increase-in-resolution-time-dent-ibcs-success-says-crisil/article67570542.ece> (Last visited on 10th December 2023)

⁵² Ministry of Corporate affair, “Invitation of comments from the public on changes being considered to the Insolvency and Bankruptcy Code, 2016” (18th January 2023). Available at: <https://www.mca.gov.in/content/dam/mca/pdf/IBC-2016-20230118.pdf>.

intelligence application to guarantee prompt access to the official insolvency process. The chairman of ASIC, the corporate and securities regulator in Australia, highlighted the significance of technology for the organization, although no specific and concert plans have been put out. India and other countries seeking to enhance their insolvency systems through technology might learn valuable lessons from international experiences and by carefully assessing the associated risks. After making a cross jurisdiction overview it can be concluded that it is necessary for Indian government and IBBI to embrace AI in the insolvency ecosystem. And to dispel the myth that it would displace attorneys' lawyers and other legal professionals; rather, AI will be a useful tool for delivering improved legal services.