Resolving insolvency and ease of doing business reforms in BRICS nations with particular reference to India

Basant Kumar1, Neelam Chawla1, and Gokulananda Patel1

1Affiliation not available

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Abstract

This paper analyzes the factors responsible for the efficacy of resolving insolvency issues influencing the ease of doing business (EoDB) ranking in the BRICS (Brazil-Russia-India-China-South Africa) nations’ context, with particular reference to India. Based on published data from the World Bank’s EoDB reports, the paper analyzes the impact of EoDB parameters, particularly resolving insolvency issues, on its ranking. Besides, the study examines the legal framework of insolvency resolution that boosts stakeholders’ confidence and improves the business environment. The research also investigates the legal framework of insolvency resolution vis-a-vis judicial pronouncement to understand government strategies, stakeholders’ trust and the business environment aiding EoDB ranking. Descriptive statistics and analytical hierarchy process (AHP) were applied to analyze and interpret the findings and results. The key findings show that insolvency resolution has been one of the priorities of the governments in Brazil, Russia, and China almost during the last decade; India’s importance came after the Insolvency and Bankruptcy Code (IBC), 2016 enactment. Resolving insolvency is the prime factor responsible for India’s rank improvement, whereas it is not a priority for South Africa. The AHP in the Indian context proves that the government’s importance to insolvency resolution moves in lockstep with expert opinions. The findings add value to the body of knowledge on insolvency resolution, contributing to the EoDB ranking vis-a-vis the business environment, and provide a broader implication for further research.

Keywords: BRICS nations, Business environment, Doing business reform, EoDB, Resolving insolvency, World Bank

Introduction

Insolvency commonly refers to a state of the financial crisis in which a person or business cannot pay their bills, leading to insolvency proceedings. As a result, legal action against an insolvent person or entity is imminent. Therefore, asset liquidation is the better option to pay off outstanding obligations. The review of
the literature on insolvency reveals insolvency as a much-discussed and debated issue in the corporate world because of its economic and legal implications (Morrison 2002; Levratto 2013; Marilena and Taran 2015; Agarwal et al. 2020; Das 2020; Sahoo and Guru 2020; Misra 2020). The term insolvency has two dimensions: the accounting concept comprising cash flow insolvency, balance sheet insolvency, and economic failure. The other is the legal aspects of default—insolvency proceedings and the reorganization of liquidation (Armour 2001).

However, a well-functioning market economy causes a well-functioning insolvency legal system. Without such a mechanism, society cannot determine which businesses are sound. Effective insolvency regulation is crucial to business dynamics. The development establishes that insolvency processes and subsequent liquidation result in an effective system of insolvency laws, which is vital for any economy’s growth (IMF 1999; Levratto 2013). Country-specific (Belgium, Colombia, Italy, Chile) research has shown that insolvency reforms encourage debt restructuring and reorganization, reduce failure rates among small and medium-sized enterprises (MSMEs), and liquidate profitable businesses (Bergoeing et al. 2002; Dewaelheyns and Cynthia 2007; Giné and Love 2010; Rodano et al. 2011). The study of Djankov et al. (2008) suggests that a robust insolvency regime prevents sustainable enterprises from being liquidated prematurely.

In recent times, resolving insolvency, one of the Ease of Doing Business (EoDB) index parameters, has been a remarkable contributor to the reform process, exhibiting a country’s conducive and competitive business environment. An efficient insolvency regime is essential for securing capital in the shortest possible time (Garrido et al. 2019; Estevão et al. 2020; Sahoo and Guru 2020; World Bank 2019; Olujobi 2021). The EoDB ranking among BRICS (Brazil-Russia-India-China-South Africa) nations during 2010–2019 as provided in EoDB reports shows Brazil ranked 44 for insolvency resolution in 2010, but there was a surge to 134 in 2011. Again, it improved its position to 55 in 2014; subsequently, it went down slowly, and in 2019, it figured at 77. Russia’s performance was almost stable between 2011-2019, hovering in the rank between 53 and 65. India’s position had significantly improved from 108 in 2016 to 52 in 2019. Regarding China, the place varied between 51 and 82 with relative stability after 2014, and the latest rank was 51. South Africa almost followed China’s trend, with positions ranging as low as 39 in 2014 and as high as 84 in 2012, with the current rank at 68. China was the largest reformer among BRICS nations, with eight out of 10 indices, including resolving insolvency in 2019. Fig. 1, for a basic understanding, outlays the overall EoDB ranking of BRICS nations during 2010–2019.

Some developing economies, including India, are focusing their reform efforts on making insolvency proceedings more efficient. The Indian government’s strategy to implement a new insolvency law in 2016, which makes resolving efficiency easier, primarily through the reorganization option, streamlining liquidity pro-
cedures, and ensuring the debtor’s business continuity during insolvency proceedings, has had a positive impact on the business environment. Consequently, India gained 14 spots to 63rd in 2019, according to the World Bank’s EoDB report 2020, riding high on the government’s flagship ‘Make in India’ initiative and other measures for luring foreign investment. As a result, the country has ranked among the top ten performers in the third consecutive year. In addition, India advanced 56 places to 52 in the category of ‘resolving insolvency,’ which measures how easy it is to quit a business, from 108 in 2018. The achievement is awe-inspiring (World Bank 2019).

Further examination of reforms across countries according to the EoDB report 2020 shows that 15 out of 190 countries have more or less addressed the insolvency issue (Table A1), suggesting that it is a minor reformed area. Thus, it is now drawing the attention of researchers and policymakers to a new debate and research area.

2. Literature Review and Research Gap

The EoDB rankings contribute to policy change debates. A brief note about EoDB ranking and performance before the literature review is imperative to generate a natural flow of discussion on the research issue. One of governments’ development concerns and priorities is to improve the investment climate. The World Bank Group’s EoDB reports have become a critical reference and benchmark for legislative changes to unlock the private sector’s potential. In the reform process, the EoDB indicators play a vital role. Governments that use the EoDB reports for reform recommendations try to improve their EoDB rating to increase the visibility of their overall reform efforts or maximize the effect of change on economic development (Marek 2012).

Regulations are in place to safeguard employees, the public, companies, and capital (investment). However, ineffective or insufficient regulation may impede entrepreneurial activity and business development and influence the EoDB. Burdensome regulations may push companies into the shadows of the informal sector or out of the nation to pursue a more favourable business climate; away from the supervision of regulators and tax collectors. In addition, foreign investors may avoid countries whose regulations make it difficult for economic activity to thrive. Moreover, cumbersome regulations restrict an economy’s capacity to develop sustainably. Thus, the economic freedom to conduct business aids economic growth and a flourishing private sector, which supports poverty eradication and the goal of shared prosperity (World Bank 2019).

Different reform indicators, studied by the World Bank’s EoDB reports since 2004, indicate the vital work countries have performed to improve their regulatory environments. For example, doing business is a helpful instrument that governments may utilize to develop reasonable regulatory regulations. In addition, it promotes policy discussion by highlighting possible problems and recognizing excellent practices and lessons gained by providing policymakers with a means to evaluate progress (World Bank 2019).

According to the EoDB report 2020 (World Bank 2019), the top 10 best places to do business are New Zealand, Singapore, Hong Kong SAR, China, Denmark, the Republic of Korea, the United States, Georgia, the United Kingdom, Norway, and Sweden. Saudi Arabia, Jordan, Togo, Bahrain, Tajikistan, Pakistan, Kuwait, China, India, and Nigeria are the most improved performers in their EoDB rankings. The report also indicates that SAARC countries have maintained a steady rate of regulatory change, with India and Pakistan ranking among the top improved economies. Table A2 shows that India implemented four changes that reduced the costs and time associated with border and administrative processes, allowing for easier cross-border commerce and obtaining building permits. Pakistan undertook six reforms, making property registrations easier by making it faster and easier to record a deed, increasing the transparency of the land administration system, and improving access to energy. On the other hand, Afghanistan, Bhutan, the Maldives, and Sri Lanka made no regulatory adjustments. As a result, a business dispute in the area takes almost twice as long to resolve as it does in OECD high-income countries. China, an Asian giant and a BRICS nations’ member, simplified taxation by, among other things, granting small and low-profit companies favourable tax treatment on corporate income tax rates.

The question is now whether all the EoDB indices/rankings cause economic growth. The literature review reveals conflicting findings regarding the impact of the EoDB reforms on economic growth (Table A3).
Most of the research has focused on whether higher EoDB rankings result in more FDI inflows.

Table A3 exhibits that in the entire sample of nations studied during 2003-2007, there was little or no evidence of substantial economic reactions to changes in the costs and administrative delays connected with company registration, contract enforcement, property registration, and import/export processes, or to labour regulatory reforms. There was some strong evidence of the beneficial effects of regulatory changes in relatively developing nations (depending on governance) and relatively well-governed (conditional on income). These projected effects were significant but not implausibly large (Eifert 2009). The "trading across borders" component drove the overall EoDB’s significance (Corcoran and Robert 2014). Except for trade across borders and dealing with building permit indices in Africa, Messaoud and Teheni (2014)'s findings showed a strong relationship between regulatory indices and economic development. Investors believed EoDB rankings helped African countries’ per capita GDP growth (Estevo et al. 2020). When looking at cross-economy correlations, the connections between the EoDB indicators and economic results were particularly significant. Trade, capital flows, and knowledge transfers helped APEC (Asia-Pacific Economic Cooperation) countries improve their competitiveness, create jobs, and increase incomes (APEC 2009).

Regarding FDI’s influence, the EoDB and FDI inflows relationship was significant for the average country. In developing countries, the improved ranking had an insignificant effect on FDI inflows; countries that implemented large-scale reforms relative to other economies did not always attract more FDI (Jayasuriya 2011). There was undoubtedly a correlation between the overall EoD and FDI. Cross-country correlations suggest FDI inflows were higher for economies that did better on EoD metrics (Anderson and Gonzalez 2012). Bayraktar (2013), Vogiatzoglou (2016) and Nketiah-Amponsah and Sarpong (2020) had similar findings.

Additionally, in the ASEAN (Association of South-East Asian Nations) context, Vogiatzoglou (2016) views efficient business regulations as important FDI determinants, and business regulatory efficiency is linked to other elements reflecting efficiency, sophistication, and quality. A study by Hossain et al. (2018) found that while EoDB parameters such as "enforcing contracts" had a significant positive impact on FDI inflows, "getting credit" and "registering property" had a significant negative correlation. Furthermore, "starting a business" and "paying taxes" had no significant impact.

Evidence from a study (Shahadan et al. 2014) of six Asian countries-Afghanistan, Bangladesh, India, Iran, Pakistan, and Sri Lanka indicates that EDoB indices as determinants of FDI were likely to attract more substantial FDI inflows. The study also shows that all indices had inverse relationships, except registering properties, getting credits and trade across borders. Additionally, all the parameters excluding paying taxes and resolving insolvency or closing business in the region were most likely to influence FDI inflows.

Enforcing contracts, paying taxes, obtaining electricity, and dealing with building permits were the leading indices attracting FDI in Zimbabwe (Mahuni & Wellington, 2017). Starting a business, getting electricity, registering property and resolving insolvency had a positive and significant impact on attracting FDI in 16 European transition countries from 2009–2016. Variables such as dealing with construction permits, getting credit, paying taxes, and protecting minority investors showed a negative impact. In contrast, trading across the border and enforcing contracts had not affected attracting FDIs in European transition countries (Haliti et al. 2020).

Contractor et al. (2019) investigated whether host nations’ regulatory variables affect inbound FDI using World Bank data for 189 economies. The study found that countries with better contract enforcement and more effective international trade laws attracted more FDI. Nketiah-Amponsah and Sarpong (2020), studying 45 sub-Saharan African countries for the period 2004–2018, reveal that a percentage point improvement in tax administration, coupled with the existence of an optimal tax rate, increased FDI inflows.

The study of Anggraini and Inaba (2020) appears to be comprehensive EoDB impact research with a database of 166 economies covering the period from 2009-2018. The general findings are that the overall EoDB score was significant in attracting inward FDI. Getting credit and electricity were two of the most crucial and relevant EoDB indicators of inward FDI in the host countries. The research also reveals that the overall
EoDB score practically influenced almost all categories of countries, except for OECD (Organization for Economic Cooperation and Development) nations. Further findings show that different relevant indicators of EoDB affected FDI for other economies. For the high-income countries and OECD countries, starting a business was the essential indicator of EoDB that influenced FDI. For middle-income countries, paying taxes emerged as the most significant indicator of inbound FDI motivation. However, for Sub-Saharan African nations, enforcing contracts was a negative indication of FDI inflow. Finally, for low-income countries, getting credit was the most appropriate indicator of EoDB that affected FDI.

According to the latest research (Okwudili Iweama et al., 2021), the overall EoDB indicators directly impacted FDI in Nigeria. The power supply, security, and transportation dimensions of the EoDB had a substantial but adverse effect on FDI. Another recent study (Sebayang and Fabina 2021) found that all of the EoDB indicators significantly impacted economic growth in ASEAN. Nevertheless, four indices (paying taxes, getting credit, trading cross border, getting credit) especially moved economic growth in the region. In contrast, in the European Union, five indicators considerably impacted economic growth.

With elaborative discussion on EoDB indices impacting country ranking and its contribution to economic growth, a deeper insight into research aspects of the insolvency resolution legal framework brings limited studies for review. A comprehensive review of bankruptcy law by Boughanmi and Nirjar (2013) analyzed the efficiency and quality of bankruptcy law in various countries. The revelation was that corporations would protect themselves against creditors, recover from financial distress, and maintain a changing environment in the globalized economy.

Prusak (2018) studied bankruptcy risk assessment practices in Central and Eastern Europe (Eastern Bloc) and their advancement. The observation of this research was about conducting advanced studies in this area in the Czech Republic, Poland, Slovakia, Estonia, Russia, and Hungary. In contrast, traditional approaches were the options in other countries. Other interesting revelations are that European integration was affected by Brexit, making the UK–EU insolvency cases less efficient and effective (Carballo Piñeiro 2017). Staszkiewicz and Morawska (2019) studied the differences in Polish and Spanish ex-ante efficiency and factors that affect the interim recovery rate and efficiency and differences in Polish procedures between ex-ante and ex-post efficiency. They viewed Polish insolvency proceedings as inefficient.

Country-specific research on insolvency aspects related to BRICS nations found that Brazil’s Bankruptcy Law, 2005, still lagged behind neighbouring countries and remained debtor-friendly in a successful reorganization process (Cooper et al. 2017). Brazil’s judicial process was weak and needed reorganization for more effectiveness and transparency in the system (Leite et al. 2018; Ribeiro Jr and Barbosa 2019). Oreng et al. (2019), investigating how bank creditors responded to 125 corporate reorganization filings in SMEs during 2006-2016, demonstrated that the share of the bank’s debt of its creditors was not significant and needed judicial process restructuring. While examining Russia’s functions of the institution of bankruptcy’s procedural and legal regulations, Ageeva and Lang (2019) found that the law enforcement practice of declaring debtors insolvent, identifying problems with procedural rules, and formulating proposals for their elimination was weak. The bankruptcy procedure needed simplification to the greatest extent.

Regarding India, Mann and Mann (2019) studied the issues leading to the Insolvency and Bankruptcy Code (IBC) enactment in 2016, highlighting the strength of creditor-driven insolvency resolution and the implications for cross-border insolvency through bilateral agreements and reciprocal arrangements with other countries. Handa (2020) reviewed CIRP to identify problems relevant from an acquisition perspective and found that acquisitions through this process had some imperfections; specific issues existed, which, if addressed, could pave the way for objective investments in the Indian economy.

Research by Steele et al. (2018) on trends and developments in the Chinese Insolvency Law (the PRC Enterprise Bankruptcy Law, 2007) shows that practice and professionalization have developed significantly since the Law, 2007, came into effect, particularly over the last five years. However, it lacked consistency and suggested consumer-focused reforms with the increasing professionalization of courts and insolvency practitioners.
In South Africa, insolvency issues, individual or corporate, are regulated by the Insolvency Act 24 of 1936, supplemented by Common Law as contained in Roman-Dutch sources and the Court’s judgments. There was no consensus on which Law—The Insolvency Act 1936[^6], the Companies Act 1973[^7], or a separate Act would govern insolvency matters, requiring reform or replacement, making judicial management and statutory corporate rescue procedures efficient and effective (Loubser 2007). Kanamugire (2013) discussed various provisions of the Insolvency Act 1936 that regulated sequestration of the estates of debtors benefiting creditors in the case of an insolvency proceeding under a court’s order. The paper addressed how South Africa had a pro-creditor system of insolvency. Another study by Joubert and Calitz (2014) suggested that the insolvency regulation needed significant reform and included a re-evaluation of the court master’s role, an increase in the scope of the liquidator’s duties and the obligation to act honestly and impartially by liquidators.

Given the analysis above, research on insolvency resolution is scant with diverse findings. However, the insolvency resolution aspect is a grey area for further study in the BRICS nations, particularly in the Indian context. The survey of BRICS nations is a choice because of the implications of international integration among these five leading countries from different regions towards sound global trade and investment and access to technological advances through innovation. The focus on India stems from the fact that India is currently by far the top performer in South Asia in resolving bankruptcy and outperforms the average for OECD high-income countries regarding recovery rate, the time required, and the cost of a corporate insolvency resolution procedure (Extended Table 1 with a graph). In addition, India’s seriousness about resolving insolvency has also propelled researchers to explore its strategic moves to improve the business environment. Furthermore, according to the World Bank report, the Indian government claims, and industry analysts believe that the successful implementation of the Insolvency Banking Code (IBC/Code) in 2016 is the primary reason for such performance (“UKIBC - Ease of Doing Business a Major Step Forward” 2018; Sekhri and Kumar 2020). Therefore, the present research also explores how the IBC 2016 has impacted the ranking and accomplishments.
Objectives and Methods

With the backdrop above, this paper analyzes the factors responsible for the efficacy of resolving insolvency issues influencing the EoDB’s ranking in the BRICS nations’ context, with a focus on India. Additionally, the study examines the legal framework of insolvency resolution that boosts stakeholders’ confidence and improves the business environment. Thus, we try to answer two research questions: (i) does resolving insolvency improve the EoDB ranking of BRICS nations, and (ii) how effective is the legal framework in shaping the insolvency resolution process in these countries, particularly India?
The study’s scope is limited to BRICS nations. The reason is that economic integration among these nations has contributed to global economic growth and trade development (Rani and Kumar 2018; Saji 2019; Parfinenko 2020), capital formation (Rani and Kumar 2018), competitiveness (Saji 2019; Parfinenko 2020; Thazhugal 2020). Innovation-driven policy formulation (Coulibaly et al. 2018; Rani and Kumar 2019; Tahir and Tahir, 2019), the building of alternative international economic institutions and good governance (Mazenda and Cheteni 2021) with political stability (Mbukanma et al. 2019; Yakovlev 2019) are other contributions of BRICS integration. A comparative study of India with other BRICS nations would bring home how competitive the Indian economy is and contribute to global economic growth and trade development through this platform by resolving insolvency.

The study relied on published data from the World Bank’s EoDB reports from 2010-2020 to achieve the first objective of analyzing the impact of EoDB parameters, particularly resolving insolvency issues, on its ranking. Descriptive statistics were the techniques applied to analyze and interpret the findings. Besides, for the second objective, the research examined the legal framework of insolvency resolution through 2016 vis-à-vis judicial pronouncement to understand government strategies, stakeholders’ confidence and the business environment aiding EoDB ranking. In addition, we used the Analytic Hierarchy Process (AHP), a multi-criteria decision-making tool, to figure out how the Indian government prioritizes insolvency regulation through a particular Act to improve the business environment through the EoDB ranking.

Studies using the AHP method usually prefer small groups. In the AHP analysis, generally, the sample size falls within the maximum frequency range of 2-100. Enrique Mu and Milagros Pereyra-Rojas (2016) preferred three respondents in a group decision to fulfil the consistency ratio below 10%. The number, however, is determined by the research objective(s), and we have considered nine experts from various backgrounds involved in the insolvency resolution process, which are within acceptable consistency ratio limit.

3.1. AHP: theoretical considerations

The simplicity of the AHP and its mathematical properties are some of the reasons that have made AHP popular and thus attracted the interest of many researchers. The application of AHP can be summarized into the following procedural steps;

1. Decomposition of the goal into a hierarchical structure with criteria, sub-criteria and alternatives,
2. Pairwise comparison matrix creation with respect to a higher level,
3. Priority weights determination (in this paper eigenvector method-EM) is followed
4. Consistency check

The above stated procedural steps are explained below:

Creation of a hierarchical composition

Perhaps the most beautiful aspect of AHP is a decision-making tool, and a fundamental one is its ability to disintegrate the problem into a hierarchy with different levels of goal, criteria, sub-criteria and alternatives. This hierarchy illustrates the nature of the relationship that exists between elements in the same level and those immediately above or below them. This relationship dribbles down to the base of the hierarchy, which consists of the alternatives, and with that, all elements are either directly or indirectly connected to one another.

Creation of a pairwise comparison matrix

A comparison is the numerical representation of a relationship between two elements that have a common parent. This set of all such comparisons is represented in a square matrix in which the set of elements is compared with itself. Each comparison represents the dominance of an element in the column on the leftover on an element in the row on top. This pairwise comparison matrix is filled out entirely to improve
the validity of the judgments. Pairwise comparisons matrices eventually express the qualitative answer of a decision-maker into some numbers, which most of the time are ratios of integers.

For a set of n elements in a matrix, one needs \( n(n - 1)/2 \) comparisons. The diagonal elements of the matrix are 1 and the remaining half of the judgments is reciprocals. The comparison matrix \( A \) can be written as

\[
A = \begin{pmatrix}
1 & \text{amp;} a_{12} & \text{amp;} \ldots & \text{amp;} a_{1n} \\
1/a_{12} & \text{amp;} 1 & \text{amp;} \ldots & \text{amp;} a_{2n} \\
\vdots & \text{amp;} \vdots & \text{amp;} \vdots & \text{amp;} \vdots \\
1/a_{1n} & \text{amp;} 1/a_{2n} & \text{amp;} \ldots & \text{amp;} 1
\end{pmatrix}
\]

The comparisons are based on the fundamental scale originally proposed by Saaty (1980), father of AHP with ratios of 1,3,5,7 and 9 respectively, with even integers 2,4,6 and 8 being used for intermediate judgments such as 6 for between ‘strong’ and ‘very strong’. The fundamental scale proposed by Saaty (1980) is given below:

<table>
<thead>
<tr>
<th>1</th>
<th>Equally Important</th>
<th>Two activities contribute equally to the objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Moderate Importance</td>
<td>Experience and judgments slightly favor one activity over another.</td>
</tr>
<tr>
<td>5</td>
<td>Strong Importance</td>
<td>Experiences and judgment strongly favor one activity over another.</td>
</tr>
<tr>
<td>7</td>
<td>Very Strong</td>
<td>An activity is favored very strongly over another.</td>
</tr>
<tr>
<td>9</td>
<td>Extreme Importance</td>
<td>The evidence favoring one activity over another is of the highest possible order</td>
</tr>
<tr>
<td>2,4,6,8</td>
<td>For compromise between the above values</td>
<td>Sometimes one needs to interpolate a compromise judgment numerically</td>
</tr>
</tbody>
</table>

**Priority weights determination**

When containing no error, \( w_i \) being the weight of \( i \)th element and \( w_j \) the weight of \( j \)th element we have

\[
a_{ij} = \frac{w_i}{w_j}, \quad i, j = 1, 2, \ldots, n
\]

\[
A = \begin{pmatrix}
w_1 & \text{amp;} w_1 & \text{amp;} \ldots & \text{amp;} w_1 \\
w_2 & \text{amp;} w_2 & \text{amp;} \ldots & \text{amp;} w_2 \\
\vdots & \text{amp;} \vdots & \text{amp;} \vdots & \text{amp;} \vdots \\
w_n & \text{amp;} w_n & \text{amp;} \ldots & \text{amp;} w_n
\end{pmatrix}
\]

If the matrix \( A \) is consistent means \( A \) contains no errors, we have

\[
a_{ij} = \frac{w_i}{w_j}, \quad i, j = 1, 2, \ldots, n
\]

Summing over all \( j \), we obtain

\[
\sum_{j=1}^{n} a_{ij} w_j =, \quad i, j = 1, 2, \ldots, n
\]
which, in matrix notation, is equivalent to

\[ Aw = nw \]

The vector \( w \) is the principal eigenvector of the matrix \( A \) corresponding to the eigenvalue \( n \).

The matrix \( A \) is consistent if \( Aw = nw \)

If \( A \) is not consistent, we therefore write

\[ Aw = \lambda_{\text{max}} w, \]

where,

\[ \lambda_{\text{max}} = \sum_{i=1}^{n} \sum_{j=1}^{n} a_{ij} w_j \]

\[ \sum_{i=1}^{n} w_i = 1 \]

Eigenvector method

The principal eigenvector \( \lambda_{\text{max}} \) of \( A \) is determined by solving the characteristic equation,

\[ \det (A - \lambda_{\text{max}} I) = 0 \]

Then using the value of \( \lambda_{\text{max}} \), the eigenvector \( w = (w_1, w_2, \ldots, w_n) \) is found out from:

\[ (A - \lambda_{\text{max}} I) w = 0 \]

Consistency check

The next procedural step is the consistency check. While eliciting weights, a decision-maker is likely to form a reduplication of comparisons due to poor judgments or uncertainty. These reduplications cause a numerical error. AHP tolerates an inconsistency ratio of less than 10%, taking into account the different units of criteria and goals to be compared. To check the inconsistency, the consistency index (CI), Consistency Ratio (CR) and largest eigenvalue\( \lambda_{\text{max}} \) of\( A \) are calculated. Despite the EM being a very effective method from a mathematical viewpoint, the priority vector developed from it can contravene the order preservation principle. Therefore, a Consistency Check is required.

The inconsistency is measured by consistency index (CI), and the coherence is measured by consistency ratio (CR) computed with the help of the formulae given below:

\[ CI = \frac{(\lambda_{\text{max}} - n)}{(n - 1)} \]

\[ CR = \frac{CI}{RI} \]

Where \( n \) is the rank of the matrix and random index \( RI \), which is the CI of the matrixes, generated randomly. For different matrix sizes \( (n) \), the respective values of \( RI \) are depicted in the table below.

The maximum acceptable limit for CR is 0.1.

4. Analysis of Findings

4.1. Insolvency legal framework

Insolvency resolution has been one of the priorities of the governments in Brazil, Russia, India and China during the last decade. However, China and India only implemented insolvency resolution reforms during 2018-2019. India’s strategic reforms after 2016 resulted in significant performance in 2019. By promoting reorganization proceedings in practice, India reduced the difficulty of insolvency resolution; on the other hand, it made insolvency resolution more difficult by barring dissenting creditors from receiving the same payment terms under reorganization as they would receive in liquidation. As part of bankruptcy resolution efforts, China made it simpler by establishing regulations for post-insolvency credit priority and expanding creditors’ involvement in insolvency procedures. The reported reason for China’s success was the effective implementation of PRC (People’s Republic of China) Enterprise Bankruptcy Law 2006 (Parry and Long 2020) and timely modification of relevant rules and regulations. The quality of the judicial process under the Supreme People’s Court redressing litigation issues was effective in EoDB indexing. However, China needs some more improvements in court automation to address the “difficulty of enforcement” and strictly manage trial time to ensure better ranking.

In India, many overlapping laws and adjudicating bodies dealt with financial failure and bankruptcy of businesses and people before 2016. Individual bankruptcy was governed by the Provincial Insolvency Act of 1920 and the Presidency Towns Insolvency Act of 1909. The Companies Act of 1956 (Subsequently, Companies Act, 2013) provided for the corporate liquidation of a business if it could not fulfil its debt commitments. The Sick Industrial Companies Businesses (Special Provisions) Act (SICA), 1985, governed the rehabilitation of sick companies, specifically those whose net worth had turned hostile. However, the Act and the institutional framework hampered lenders’ ability to quickly and efficiently collect or restructure defaulted assets, putting undue strain on the Indian credit system. For example, banks lent indiscriminately from 2008 to 2014, resulting in a very high nonperforming asset (NPA) ratio. The NPA grew from approximately 2% in 2008 to 5% in 2015. In addition, India was placed 136th out of 189 nations in the World Bank’s 2016 report on the ease of resolving insolvencies. Some primary causes of the troubled condition of India’s credit markets were the country’s flawed bankruptcy framework, substantial inefficiencies, and systematic misuse (World Bank 2015). Such a scenario led to prompt action by the government to reverse the trend.

Recognizing that bankruptcy and insolvency reforms are essential for strengthening the business climate and relieving troubled credit markets, the government enacted the IBC on 28 May 2016. The Code provides a consistent, comprehensive insolvency law that applies to all corporations, partnerships, and individuals (other than financial firms). One of the essential aspects of the IBC is that it enables creditors to evaluate a debtor’s viability and agree on a strategy for its resurrection or quick liquidation. In addition, the Code establishes a new institutional structure comprising a regulator, insolvency specialists, information utilities, and adjudicatory procedures to enable a formal and time-bound insolvency resolution and liquidation process.

Since its inception, the Code has been continually refined and changed to make it more business-friendly. The Court has also played a pioneering role in simplifying several Code sections.

4.2. Indian context

The IBC, 2016’s primary goal is to unify the current framework and establish single legislation for insolvency and bankruptcy. Insolvency Resolution, Insolvency Regulator, Insolvency Professionals and Bankruptcy, and Insolvency Adjudicator are the four primary components of the Code. However, the insolvency process (Sections 6-32) and the liquidation process (Sections 33-54) are the two essential processes that address the
insolvency issues: whether the revival is possible or it goes for liquidation. It is the timeline for action that matters. Table 2 displays a bird’s-eye view of insolvency mechanism, and Fig. 2 demonstrates its flow chart for clarity and understanding.

Table 2. IBC, 2016 mechanism: a bird’s eye view (“A debtor in possession to a creditor in control”)


Fig. 2. Flow chart of CIRP under IBC, 2016 (330 days resolution time)

4.2.1. Constitutional validity: Supreme Court’s intervention

India is a federal republic with a multiparty governance system, and challenging a new governance system is natural. The implementation of IBC, 2016 also faces such challenges, and the judiciary’s intervention has played a significant role in its implementation. The Indian Supreme Court in Swiss Ribbons Pet. Ltd. v Union of India upheld the constitutional validity of the Code. Among other things, it held that there was no violation of Article 14 of the Constitution concerning the voting rights of the operational creditors in the committee of creditors (“CoC”). The Court also held that the ‘distribution waterfall’ as provided under the Code is not discriminatory and manifestly arbitrary for operational creditors. Finally, the Court clarified the function of a Resolution Professional, who serves as a facilitator in the resolution process to view that the IBC is more than just recovery law for creditors; it also allows a debt-ridden company (Corporate Debtor) to get back on its feet.

Furthermore, the constitutional validity of the provision regarding CoC in the IBC (Amendment) Act, 2019 that came into operation on 6 August 2019 was challenged before the Supreme Court in Essar Steel India Limited v Satish Kumar Gupta and Others. The apex Court, in a quicker decision on 19 November 2019, while upholding the validity of the amendment, clarified the role of the CoC and resolution professional. The clarification provided is that the ultimate business decision lies with the CoC in the insolvency resolution process. Therefore, the Adjudicating Authority has to ensure that the CoC decides after considering the three factors, viz., the corporate debtor is continuing as a going concern during the resolution process, the asset value of the corporate debtor is maximized, and stakeholders’ interests are balanced. The decision should be made after considering the IBC Act’s objectives. The Court also resolved that the resolution professional is only required to collect, collate and admit claims without adopting an adjudicatory role. Such claims are directed to be negotiated and decided by the CoC. Moreover, the CIRP must be completed within the overall limit of 330 days from the insolvency commencement date. However, it would be open for NCLT or NCLAT to extend beyond 330 days only in exceptional cases.

Assets sale or liquidation proceedings cannot occur in High Court simultaneously

In Anand Rao Korada Resolution v. M/s Varsha Fabrics Pvt. Ltd, the Supreme Court held that once the procedures under the IBC had started, the High Court could not go forwards with the auction of the corporate debtor’s property, and the NCLT passed an order declaring a moratorium. The civil courts have no jurisdiction regarding any matter in which the Adjudicating Authority is empowered under S.231 of the IBC code. S.238 of the IBC vests exclusive jurisdiction in the Adjudicating Authority to deal with issues related to the insolvency process of a corporate debtor and the mode and manner of disposal of its assets.

4.2.3. Role of the Adjudicating Authority in approving or rejecting a resolution plan

The Supreme Court ruled in K. Sashidhar v Indian Overseas Bank and Others that the CoC’s "commercial sense" in accepting or rejecting a resolution plan is not subject to judicial review. In such situations, the NCLT’s authority is to ensure that the legislative requirements stated in Section 30(2) of the Code are fulfilled within the resolution plan authorized by the CoC. The Court decided that the judgement would be susceptible to judicial review.

4.2.4. Corporate guarantors can be dragged into insolvency
In *Ferro Alloys Corporation Limited v Rural Electrification Corporation Ltd* 19, the Supreme Court affirmed the NCLAT’s decision that once a guarantee is triggered, it becomes a debt, and the guarantor becomes a “corporate debtor”. The judgement pronounced on 11 February 2019 has increased the number of bankruptcies in India.

**4.2.5. Striking down the Reserve Bank of India’s (RBI) Circular dated 28 February 2018 (RBI Circular)**

The Supreme Court observed that the RBI Circular providing the framework for resolving stressed assets violated Section 35AA of the Banking Regulation Act of 1949. The Court thoroughly analysed the authority given to the RBI under Section 35 AA of the BR Act. The Court concluded that the RBI might order banks and financial institutions to comply with the Code only if two criteria are met: the RBI should get permission from the Central Government before issuing any directives. In addition, it must be in response to a particular default.

**4.2.6. A sign of relief for homebuyers**

The Supreme Court dismissed the appeal to the validity of the Insolvency and Bankruptcy Code (Second Amendment) Act, 2018, in *Pioneer Urban Land and Infrastructure Limited v Union of India* 20 on 9 August 2019. According to Section 2(d) of the Real Estate (Regulation and Development) Act of 2016, the scope of the financial creditor has been extended to include ‘real estate allottees’ (house purchasers) under the new amendment. Concluding the case, the Court said that when a sale agreement exists between the developer and the house buyer, it has the same “commercial impact” as borrowing, implying that homebuyers receive the flats/apartments in place of money provided for temporary use. Furthermore, the Supreme Court emphasized that in such a case, both parties have a vested “commercial interest,” the real estate developer who profits from the sale of the apartment and the buyer who profits from the sale of the unit. Thus, the Supreme Court determined that the money collected through real estate agreements from house purchasers is intended for profit and is thus included as “financial debt” under Section 5 (8) (f) of the Code, without even needing an explanation by the Amendment Act.

**4.3. Achievement-IBC, 2016 performance**

IBC, a second generation reform, is seen as “a debtor in possession to a creditor in control”—freeing up economic resources, resolving a viable enterprise, realizing creditors’ claims better, liquidating unviable businesses, and finally preserving jobs. The first generation of reform allowed for the free entry of enterprises into the market. Nevertheless, the second generation of reform allows the easier withdrawal of inefficient firms from the market via the IBC. Quantifying the effect of the Code’s quick resolution procedure is complex. The direct measures do not account for the Code’s enabling and preventative function thus far.

Under the IBC, 2016, the insolvency resolution is a long-drawn process and is very time-consuming. As a result, many stakeholders, viz. government machinery, various creditors, and judicial bodies, are involved in the resolution mechanism-Corporate Insolvency Resolution Process (CIRP). When a corporate debtor cannot pay at least INR 100,000 (US$ 1495), the insolvency process begins. The Code addresses cross-border insolvency through bilateral agreements and reciprocal arrangements with other countries. The timeline fixed for bankruptcy procedure completion is a maximum of 330 days, with an additional 90-day extension. The CIRP’s status (Table 3) demonstrates that creditors and other stakeholders benefit from the IBC’s CIRPs. The table displaying the ongoing resolution timeline explains that over 65% of the CIRPs continued for fewer than 270 days in 2018-2019 and 2019-2020. Such a trend appears to be in line with the Code’s proposed time limit. However, the COVID-19 impact has caused a delay in the process and reversed the trend.21 Table A4 shows the comparative performance of the IBC vis-a-vis other channels in NPA recovery. Although the aggregate percentage of the amount recovered varied between 13 and 24 during 2017-2020, the scheduled commercial banks (SCBs) recovered more than 45% of the NPAs involved through the IBC route after its implementation. The rally was more than the entire amount recovered by all other alternative mechanisms combined. Such a trend speaks about the robustness of the IBC. These performances pushed the 2019 DoEB’s ranking to 63, meaning that the IBC, 2016, is proactive, practical and moving India’s economic growth. It has helped employment retention, plowing back the recovery amount
to the credit cycle, resource allocation and corporate governance, streamlining entrepreneurship culture, improving competitive market outcomes, and driving competition and innovation.  

<table>
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<td>22</td>
<td>12</td>
<td>13</td>
<td>2653 23 15</td>
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<td>13</td>
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<td>14 46</td>
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<tr>
<td>Liquidation (%)</td>
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<td>206</td>
<td>NA</td>
<td>19</td>
<td>10</td>
<td>3068 23 17</td>
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<tr>
<td>Ongoing CIRPs Timeline (%)</td>
<td>36</td>
<td>537</td>
<td>1143 30 22</td>
<td>2170 17 26</td>
<td>1723 12 5 4</td>
<td>1640 8 7 12</td>
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<td>NA</td>
<td>NA</td>
<td>433</td>
<td>492</td>
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Table 3. Status of CIRPs during 2017-2021 (September)

4.4. Analytic Hierarchy Process (AHP) decision making

We sought nine experts’ opinions through a structured AHP questionnaire with 18 questions. The experts were corporate executives (two), Chartered Accountant/Company Secretary/Cost Accountant (three), lawyers (two), insolvency officials (one), and Professor/Economic Advisor (one), who had at least three years of experience in the resolution/liquidation process in India. The respondents comprised both males (six) and females (three) in the age group of 40–65 years (x:46 years) with insolvency professional experience of around four years. Table 4 presents the weightage of individual contributing factors for all 10 EoDB parameters in the Indian ranking. Experts viewed that the three crucial contributing factors attached to India’s performance were the registration of businesses and property (0.243), starting a business (0.212) and resolving insolvency (0.204). The consistency ratio (CR) associated with the pairwise comparison matrix is 0.0084, which is less than the threshold value of 0.1 and is well accepted. The result implies that the government’s interest in strengthening insolvency resolution (IBC, 2016 enactment) moves in lockstep with expert opinions. However, policymakers may also prioritise property registration and starting a business to improve India’s ranking and provide a better business environment.
<table>
<thead>
<tr>
<th>Criteria</th>
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<th>Sub-Criteria</th>
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<tr>
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<td></td>
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<td>Expansion (0.4685)</td>
<td>Registration (0.518)</td>
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<td></td>
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<tr>
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<td>( \lambda_{\text{max}} = 4.071 )</td>
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<td>( \lambda_{\text{max}} = 4.076 )</td>
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<td></td>
<td>Insolvency</td>
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</tr>
<tr>
<td>(0.2039)</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Table 4. Weightage of contributing factors in EoDB’s ranking

Discussion

5.1. EoDB vis-à-vis insolvency resolution ranking and growth

Over time, the BRICS integration, which began in 2001 with the addition of South Africa in 2010, has evolved into an active actor in the global system, accounting for 41% of the world’s population, 24% of global GDP, and 16% of worldwide commerce. The BRICS nations have established strong relationships via diverse projects in various industries, establishing a solid precedent for socioeconomic partnership. We observe the EoDB rating in conjunction with governance and the business climate on this lengthy journey. Based on the overall EoDB score, we consider China, India, and Russia’s business climate performance highly promising. In bankruptcy resolution metrics, India’s recovery rate (72 cents per dollar) is the highest among the BRICS countries, even higher than the OECD high-income group countries, demonstrating the country’s dedication to creditors’ security. However, India’s Commencement of Proceedings Index is lower than the world’s median of 2.5, and it shows a delayed process demanding improvement.

In contrast, Russia has leading characteristics such as starting a business, resolving insolvency, trading across the border, dealing with construction permits and enforcing a contract. China has influenced factors such as protecting minority investors, starting a business, and resolving insolvency. South Africa’s key features that significantly contribute to EoDB’s performance are protecting minority investors and registering property. In the absence of any visible reforms undertaken regarding resolving insolvency, the country probably has other financial reforms to redress corporate sector insolvency issues. As a result, its insolvency resolution ranking ranged from 39 to 55 between 2014 and 2017.

By analyzing the overall BRICS countries’ EoDB ranking performance during 2010-2019, the assumption is that, except for South Africa, resolving insolvency is the crucial feature influencing the EoDB ranking. India’s performance on this count is remarkable, contributed mainly by the new legislation, IBC 2016. The Indian
Supreme Court’s timely intervention at different times has concretized the IBC’s implementation mechanism. After implementation, the creditors and other stakeholders benefit from the IBC’s CIRPs system, and the IBC works well compared to all other alternative tools for realizing NPAs of SCBs. However, the EoDB future ranking may change because of the COVID-19 pandemic impact.

5.2. Post-EoDB Report-2020 strategies

As a follow-up after the publication of the EoDB report 2020, amid the COVID-19 pandemic, it is imperative to analyze the governmental strategies of BRICS nations regarding reforms on insolvency resolution to maintain a healthy business environment.

In recent times, governments around the globe have increasingly focused on strengthening their credit environments. Improving their commercial insolvency regimes is one among other measures. Structured, efficient, and predictable insolvency and debt resolution mechanisms are determining factors in increasing financial inclusion and access to credit, which could cut loan costs. Enhanced financial access enhances business growth, leading to job preservation, development, and new jobs. The institutional/regulatory framework is crucial for banks and companies to solve NPAs, ease exit and reorganization, settle trade differences, and collect debts. The investment climate is thus strengthened through a systematic approach to debt resolution and insolvency, which promotes economic growth (World Bank 2021).

Brazil has taken some measures to protect businesses from insolvency and bankruptcy to tackle the COVID-19 pandemic scenario and to stabilize the economy during the crisis. These measures are integrated into a global effort to prevent harm linked to pandemics. One such important step initiated in August 2020 is establishing the Judicial Center for Conflict Resolution and Citizenship to settle all business disputes in out-of-court or court through negotiation, mediation, or conciliation. In addition, supporting business recovery, reducing litigation and court procedures, reducing the length of proceedings and promoting out-of-court proceedings such as extrajudicial reorganization and dispute resolution are other prime concerns of the government. A bill amending Brazilian Bankruptcy Law (Federal Law No. 11,105/2005) received approval from the Brazilian Federal Senate on 25 November 2020. Furthermore, the New Brazilian Insolvency Act (NBIA) 2020, enacted on 24 December 2020, came into play on 23 January 2021 at a pertinent moment (COVID-19 led to the global economic crisis), and it adopts an indisputably arbitration-friendly approach (Monteiro 2021). The 2021 legislation now allows Brazilian courts to recognize insolvency proceedings in other countries so that assets in Brazil are protected from creditors without moving the company into the new law process. The modifications incorporate UNCITRAL (The United Nations Commission on International Trade Law) Model Law provisions for cross-border cooperation.25

The Russian Government introduced the moratorium on insolvency claims to be effective from 6 April to 6 October 2020, making a legal effect for protected debtors and those dealing with it. The suspension stipulates restrictions on protected debtors’ transactions. It sets out specific measures to restore the financial position of protecting debtors, where the consequences of the spread of coronavirus infection have been adversely affected.26 The government further extended the moratorium for three months from 7 October 2020.27 As a countermeasure to COVID-19’s impact, there are no restrictions on creditors’ rights. In contrast, an insolvent debtor’s obligations to file bankruptcy were postponed during the moratorium period but have since been reactivated. The Federal Bankruptcy Law (Act No. 289-FZ on Amendment No. 289) that came into force on 1 September 2020 allows certain Russian citizens to declare bankruptcy while avoiding court proceedings and paying no fee.28

While in response to the COVID-19 pandemic, China’s insolvency law (Enterprise Bankruptcy Law, 2007) has not been amended, many governmental authorities in China have taken steps and policies to support companies in reducing their operating costs and in surviving the economic downturn. Moreover, some courts have given guidance on dealing with insolvency cases in response to COVID-19. In the newly issued Guiding Opinions (II) on Civil Case Proper Management, the Supreme People’s Court consolidated this guidance in response to COVID-19 following the law on May 15, 2020.29

The South African insolvency law is relatively complex due to the interlinkage of the general rules on
insolvency with those provided for in the Insolvency Act, 1936, the Old Companies Act, 1973, the Close Corporations Act, 1984 and the regulation of other insolvency aspects in the New Companies Act 2008. Although the principles are well established, it is complex in certain respects - reform is the interaction between and operation of the high court, the Master's office in the high court, and the profession of insolvency practitioners, from which liquidators are appointed. The government has followed the existing provisions to regulate insolvency issues without any amendments to these Acts. However, the Government in December 2020 gazetted the National Small Enterprise Amendment Bill 2020 to support SMMEs (Small, Medium and Micro Enterprises) by establishing an Ombud service to handle complaints and resolve disputes, among others. Now, there are no restrictions on creditor insolvency filings and restrictions on access to courts are lifted to counter the impact of COVID-19 on the economy.

Resolving insolvency-related issues is a prime concern for India. The COVID-19 pandemic-led economic slowdown has caused unprecedented havoc on Indian businesses in almost every sector. Since the IBC enactment in 2016, the government has modified the Act several times, either through amendments or by bringing ordinances to resolve insolvency disputes, particularly during the COVID-19 period. The Indian government suspended the initiation of the IBC (CIRP) by a notification dated 5 June 2020, effective 25 March 2020, for three months and extended until 25 December 2020 to insulate corporate businesses from tackling the on-going problems caused by the COVID-19 pandemic. Again, it has further extended the deadline to 24 March 2021. However, the changes outline some policy options to smooth the insolvency curve and decrease overhang risk, slowing the recovery rate. Consequently, debates about these changes are going on; does it serve the purpose or does it benefit? However, considering the experts’ views on attaching weightage to various indices, the importance of registering property and starting a business along with insolvency resolution, may improve the ranking performance. This observation may apply to other nations as well.

The government now claims that the IBC, five years after its enactment in 2016, positions itself as a framework for timely debt resolution by insolvent companies. The lenders have taken a 61% haircut on claims. During these five years, the reforms have resulted in the recovery of bad loans from technically written-off accounts worth INR 5.5 trillion (US$73.95 billion). In addition, the recovery of approximately INR 1.0 trillion (US$13.45 billion) was through the IBC process from corporate giants such as Essar Steel, Bhushan Steel, and Bhushan Power & Steel. A significant development is about recovery from written-off cases such as the noted international fugitive Kingfisher’s owner Bijay Mallya for INR 900 billion (US$12.12 billion) banking loans. However, there are some weaknesses in the IBC that need further attention from the government. We agree with the reported analysis that lenders’ recovery of claims to companies admitted under IBC was on decline-51.3% in 2017-18 to 28.5% in 2020-21. Additionally, as of March 2021, as indicated in Table 3, 79% of the total 4,376 cases under the Code were pending for more than 270 days, whereas the average time taken for the completion of insolvency resolution was 492 days versus 433 days in 2020. The delay seems to be a reason for the low interest of bidders in India’s stressed asset market. Such a trend frustrates the IBC’s objective of providing speedy insolvency and bankruptcy resolution, and this does not prioritize resolution rather than liquidation. However, this delay is more related to the COVID-19 pandemic effect than any such deficiency in the Code.

The vivid discussion on insolvency resolution strategies adopted in recent times and the EoDB ranking of BRICS nations leads to the presumption that more or less all five countries have been taking various measures to improve their EoDB ranking through insolvency resolution practices. India is more rigorous in this direction. The COVID-19 pandemic impact may affect the immediate future ranking.

**Conclusions, Implications and Future Direction**

**6.1. Conclusions**

Effective bankruptcy and insolvency regulation is critical to the dynamics of business. A sound economy in confluence with a well-functioning insolvency legal system is optimal. Society cannot judge the soundness of any business without such a system. The literature review finds limited research on bankruptcy and insolvency
resolution impacting the business environment reflected in the EoDB ranking and its contribution to economic prosperity, particularly relevant to BRICS nations. A deeper analysis suggests that the insolvency resolution aspect is a grey area for further study in BRICS nations, particularly in the Indian context. Before 2016, India’s complex and fragmented legal framework on insolvency and bankruptcy impeded the timely resolution of distressed entities, partnership firms, or individuals, which caused the borrower’s assets to depreciate. So, IBC, 2016 came as a solution to these problems. Therefore, the paper’s objectives are twofold. First, it analyzes the factors responsible for the efficacy of resolving insolvency issues influencing EoDB’s ranking in the BRICS nations’ context, with a focus on India. Second, the research looks at the legislative framework for bankruptcy resolution in these countries, enhancing stakeholder trust and improving the business climate.

In essence, our analysis brings a mixed result to the two research questions about the contribution of insolvency resolution to improving EoDB ranking and the effectiveness of related regulations, particularly in India. The analysis shows that the most significant element impacting India’s EoDB rating is bankruptcy resolution. While for Brazil, Russia, and China, it is a vital element contributing substantially to the order, for South Africa, it is a minor factor. However, the COVID-19 pandemic has delayed the resolution process and consumed more days. The post-COVID-19 situations will most likely change, disturbing the EoDB ranking. Governments are proactive in redressing this issue. In the meantime, India now sees likely amendments to it to include a cross-border insolvency framework in line with global model law and efforts to expedite case settlement in the ensuing budget session of 2022. The proposed cross-border bankruptcy law would allow lenders to incorporate a bankrupt entity’s overseas assets into its recovery actions, including the offshore personal assets of promoters who have provided personal guarantees.

6.2. Implications and future research scope

The present research adds more intent and value to the existing knowledge on macroeconomic and management disciplines, focusing on resolving insolvency, business reform, and the business environment. Academic researchers, in particular, will benefit from these findings. We agree with the views of proponents of the positive impacts of EoDB indexing, particularly Haidar (2012), that business regulatory reforms are good for economic growth. Regulatory reforms have always been deliberate in development policies, mainly when introducing a new or different law, process, or practice (Tang 2017). The policy response requires political realities to integrate politics, economics, and other considerations (Frieden 2020). However, under prevailing conditions because of the COVID-19 pandemic, governments’ priorities call for more interaction and regional integration, making the economy more competitive with regulatory reforms based on EoDB data sets.

Research shows that regional and economic integration promotes economic growth and competitive advantage through bilateral relations and the flow of goods, services, capital, people, and ideas (Kamau 2010; Kahouli and Kadhraoui 2012; Bong and Premaratne 2018, Shah 2020; Ejones, Agbola, and Mahmood 2021). We find that improving economic development via regional and economic integration in combination with EoDB ranking (at least with any parameter) is a grey research area. The research limits its scope to the BRICS nations and AHP analysis is restricted with the Indian experts’ views. Therefore, future research should study the respective government’s priority to push new reforms using AHP decision-making analysis considering individual country experts’ opinions. Additionally, the researchers may include cross-region such as APEC, ASEAN, AL, AU, EU, G20, OECD, SAARC, and SICA, covering more countries.

Declaration of Interest Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Sources

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Endnotes


3 Sample comprises 37 countries (10 ASEAN and 27 countries from European Union).

4 Poland, Lithuania, Latvia, Estonia, Ukraine, Hungary, Russia, Slovakia, Czech Republic, Romania, Bulgaria, and Belarus.

5 The consequences of UK’s referendum in June 2016 were of far-reaching and unpredictable consequences.

6 Amended from time to time.


11 SICA was repealed and replaced in 2003 by the Sick Industrial Companies (Special Provisions) Repeal Act of 2003.

12 https://www.prsindia.org/content/examining-rise-non-performing-assets-india.

13 Writ Petition (Civil) No. 99 of 2018.

14 Distribution waterfall refers to a method of allocating investment returns or capital gains among a group or pooled investment participants. The distribution waterfall, often connected with private equity firms, describes the pecking order in which dividends are distributed to limited and general partners.


19 Civil Appeal bearing No. 1484 of 2019.

20 Writ Petition (Civil) No. 43 of 2019 together with 204 other similar writ petitions (Builders, developers, real estate companies), judgement delivered on 9 August 2019. See full judgment at https://ibbi.gov.in/uploads/whatsnew/9c6b453bf73337c6eb76ac1aa331bd2ad.pdf.

21 According to research in January 2021, as part of the CIRP undertaken under the IBC, corporate debtors, who lack documentation models and fail to keep proper books of accounts do not cooperate with the RP, are critical causes of delay in the overall CIRP. (See https://iica.nic.in/images/Policy-Strengthening-IBC.pdf). However, the Ministry of Corporate Affairs, Government of India, has recently notified seeking public comments for proposed changes on CIRP to address delays and other allied issues on 23 December 2021. See for details https://www.ibbi.gov.in/uploads/whatsnew/1b7f16f9aa0f22faacffac02111c6bd8.pdf.

22 Indian Government claims, see IBBI (Insolvency and Bankruptcy Board of India) Newsletters 2020-2021at https://www.ibbi.gov.in/publication.


39. Government’s claim comes after IBC (Amendment) Bill 2021 was placed before the Parliament on 26 July 2021. This amendment targets to benefit more to SMEs with pre-packs as an insolvency resolution mechanism with defaults up to INR 10 million in post-COVID pandemic conditions.
42. https://www.financialexpress.com/industry/ibc-took-433-days-for-a-resolution-on-an-average/2169552/.

References


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Appendices

table a1. Insolvency reform details of the top 15 countries by rank (190 nations)
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<th>Country</th>
<th>Rank</th>
<th>Insolvency reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>43/93 (up 50)</td>
<td>2019: Introduced reorganization procedure, allowing debtors to initiate reorganization procedure, adding provisions on post-commencement financing, and improving voting arrangements.</td>
</tr>
<tr>
<td>Brunei</td>
<td>59/64 (up 5)</td>
<td>Before 2019: 2016 2019: Increased participation of creditors in insolvency proceedings.</td>
</tr>
<tr>
<td>India</td>
<td>52/108 (up 56)</td>
<td>Before 2019: 2009, 2017 2019: Promoted reorganization proceedings in practice, made resolving insolvency more difficult by not allowing dissenting creditors to receive as much under reorganization as they would receive in liquidation.</td>
</tr>
<tr>
<td>Jordan</td>
<td>112/150 (38)</td>
<td>2019: Introduced a reorganization procedure, by allowing debtors to initiate reorganization procedure, and by improving continuation of businesses and treatment of contracts during insolvency proceedings.</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>42/37 (down 5)</td>
<td>Before 2019: 2012, 2014, 2015, 2016 2019: Insolvency made more difficult by requiring that all creditors vote on the rehabilitation plan, regardless of its impact on their interests</td>
</tr>
<tr>
<td>Country</td>
<td>Rank</td>
<td>Insolvency reforms</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Serbia</td>
<td>41/49 (up 8)</td>
<td>Before 2019: 2010, 2011, 2012 2019: Made easier by requiring creditors to approve appointment of insolvency representative and providing them with right to information on financial status of debtor.</td>
</tr>
<tr>
<td>Sudan</td>
<td>152/168 (up 16)</td>
<td>Before 2019: 2018 2019: Made more difficult by worsening treatment of contracts during insolvency proceedings and weakening creditors’ right</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>142/159 (up 17)</td>
<td>2019: Introduced new reorganization procedure, allowing creditors to vote on reorganization plan, and granting debtors the possibility of obtaining post-commencement finance.</td>
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</table>


**Table A2.** Number of reforms during 2018-19: India vrs other SAARC and BRICS nations (190 Nations)
<table>
<thead>
<tr>
<th>Indicators</th>
<th>SAARC region excluding India</th>
<th>SAARC region excluding India</th>
<th>SAARC region excluding India</th>
<th>SAARC region excluding India</th>
<th>SAARC region excluding India</th>
<th>BRICS region excluding India</th>
<th>BRICS region excluding India</th>
<th>BRICS region excluding India</th>
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<td>Pakistan</td>
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<td>Sri Lanka</td>
<td>99</td>
<td>Brazil</td>
<td>124</td>
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<td>Brazil</td>
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Source: Compiled from Doing Business in 2020, X-Difficult; @ Major contributing factors; $ Minor contributing factors

Table A3. Research gap identification on impact of EoDB on economic growth/ FDI

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<thead>
<tr>
<th>Indices</th>
<th>Impact on economic growth/ FDI</th>
<th>Impact on economic growth/ FDI</th>
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29
<table>
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<th>Indices</th>
<th>Impact on economic growth/ FDI</th>
<th>Impact on economic growth/ FDI</th>
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<td>Overall</td>
<td>Sebayang and Fabina 2021</td>
<td>McCormack 2018</td>
<td>Jayasuriya 2011</td>
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<td></td>
<td>Vincent et al. 2021</td>
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<tr>
<td></td>
<td>Anggraini and Inaba 2020</td>
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<tr>
<td></td>
<td>Contractor et al. 2020</td>
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<td></td>
<td>Edward and Bernard 2020</td>
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<td>Nketiah-Amponsah and Sarpong 2020</td>
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<td></td>
<td>Estevão et al. 2019 Vogiatzoglou</td>
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<td></td>
<td>Bayraktar 2013 Doing Business 2013</td>
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<td>Jayasuriya 2009 APEC 2009</td>
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<td></td>
<td>Messaoud and Teheni 2014</td>
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<td>Vincent et al. 2021</td>
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<td>Messaoud and Teheni 2014</td>
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<td>Messaoud and Teheni, 2014</td>
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<td>Anggraini and Inaba 2020</td>
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<td>Contractor et al. 2020</td>
<td>Ahmad and Singh 2017</td>
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<td>Hossain et al. 2018</td>
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Table A4 . NPAs of SCBs recovered through various channels
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<th>Recovery channel</th>
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<th>No. cases referred</th>
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<th>Amount involved (amount recovered) (Rs in billions)</th>
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<td>1135</td>
<td>1953</td>
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<td>1666</td>
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