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Multipolar Interval-Valued Neutrosophic Soft Set for Integrating Sustainability into Logistics: A Performance-Based Evaluation of Green Supply Chains

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Abstract: Logistics companies are facing increasing pressure to implement sustainable practices as environmental issues across the world worsen. Through a thorough performance-based assessment of green supply chains, this research investigates how sustainability might be included into logistical operations. Eight important indicators were chosen using an evaluation framework to evaluate the operational and environmental performance of logistics companies. These indicators ranged from energy efficiency and carbon emissions reduction to green procurement and digital monitoring. As alternatives, ten typical logistics models and methods were chosen, each of which reflected a different level of sustainability integration. To evaluate and rank these models according to their green performance, the study uses both qualitative and quantitative data along with formal decision-making procedures. This study uses the Multipolar Interval-Valued Neutrosophic Soft Set to overcome uncertainty. Results show that investments in renewable energy, digital innovation, and circular logistics techniques greatly improve sustainability results. The study provides practical insights for industry stakeholders and policymakers dedicated to sustainable supply chain transformation, emphasizing the crucial role that strategic decision-making and policy alignment play in advancing eco-efficient logistics systems.

Keywords: Multipolar Interval-Valued Neutrosophic Soft Set; Sustainability; Logistics; Green Supply Chains.

1. Introduction

A series of ideologies have been developed to quantify the drawbacks provided and cognitive resources. The fuzzy set (FS) concept was developed by Zadeh to address complicated issues including ambiguity and uncertainty. However, when any expert considers the membership

(Mem) grade of any item in the intervals form, FS cannot manage the environment. Turksen suggested the concept of interval-valued fuzzy sets (IVFS) to overcome such situations. Decision-makers occasionally consider an object's non-membership (NMem) value, which is something that neither FS nor IVFS can evaluate. To resolve the issues, Atanassov settled the idea of intuitionistic fuzzy sets (IFS). Only under considered data, together with Mem and Nmem values, are included in Atanassov's concept[1], [2].

However, general incompatibility and erroneous data are problems that the IFS theory cannot handle. To tackle the difficulty of incompatibility and incorrect data, Smarandache planned the theory of NS. Molodtsov introduced a universally applicable, precise technique known as soft set (SS) for dealing with uncertain circumstances[3], [4].

1.1 Literature Review

Creating suitable performance measuring methods for supply chains is essential as "green" concerns in the industrial supply chain continue to gain international attention. Diverse approaches to green supply chain management have been put forth in various settings. A variety of performance management systems (PMS) have been put forth, however. However, choosing or creating appropriate performance measures and the resulting PMS under a specific supply chain setting is not simple due to the differences in the contexts of the various green strategies and the performance measurement methodologies. Developing a systematic taxonomic approach to PMS development in diverse green supply chain situations, contexts, and commercial objectives is the aim of this work.

Consequently, Michael Mutingi et al. [5](i) examined existing empirical research on environmental management and green supply chain operations, (ii) create a taxonomy of green supply chain tactics, (iii) derive a methodical approach to creating green performance management systems, and (iv) offer a taxonomic framework for measuring performance that includes social, economic, and environmental performance metrics. In contrast to previous research, the taxonomic framework provides a useful platform to help decision makers create an appropriate collection of performance metrics and the final PMS while considering the unique context of green strategies that the PMS is intended to function under.

The findings of this research are mixed, despite the widespread use of quantitative evaluation to determine the connection between green logistics (GL) practices and businesses' sustainability performance (SP). These conflicting results have been attributed to a lack of theoretical underpinnings. Jayarathna et al. [6] investigated the qualitative relationship between GL practices and SP and to establish a theoretical framework for this relationship. Using a multi-methodology approach, the authors employed the system thinking (ST) approach to determine causal linkages using causal loop diagrams (CLDs) and the grounded theory method (GTM) to examine perceived relationships using qualitative analysis.

Due to growing public awareness of climate change and global warming, businesses have lately adopted the crucial practice of evaluating suppliers based on green-focused features. A recent development in green supplier selection that addresses additional environmental concerns is carbon management. To evaluate suppliers' performance in relation to carbon management criteria, Alireza Fallahpour et al. [7] combined Fuzzy FVIKOR with Fuzzy Preference Programming (FPP), a novel fuzzy adaptation of the Analytical Hierarchy Process (AHP). Twelve criteria and four dimensions have been chosen based on the opinions of professionals and earlier research.

To get expert judgments on the significance level of the dimensions and associated features, linguistic variables are used. The relevance weights of each dimension and the associated criteria are then calculated using FPP. Language variables are used in a fuzzy environment to gather the providers' performance evaluations according to the established criteria. To determine the total environmental performance in relation to carbon management qualities, FVIKOR is then used. This process was used to extract the performance ratings of a textile company's suppliers through a case study. Lastly, management implications and validation demonstrate the established model's applicability and robustness.

2. Multipolar Interval-Valued Neutrosophic Soft Set

This section shows the definitions of Multipolar Interval-Valued Neutrosophic Soft Set (MIVNSS)[8].

Definition 1

The neutrosophic set is defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)): u \in U\} \quad (1)$$

$$T_A(u), I_A(u), F_A(u): u \to]0^-, 1^+[\quad (2)$$

$$0^{-1} \le T_A(u) + I_A(u) + F_A(u) \le 3^+ \quad (3)$$

Definition 2

The multipolar neutrosophic set (MNS) is defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)): u \in U\} \quad (4)$$

$$T_A(u), I_A(u), F_A(u) \subseteq [0,1] \quad (5)$$

$$0 \le T_A(u) + I_A(u) + F_A(u) \le 3 \quad (6)$$

Definition 3

The interval-valued neutrosophic set (IVNS) can be defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)): u \in U\} \quad (7)$$

$$T_A(u) = [T_A^L(u), T_A^U(u)] \quad (8)$$

$$I_A(u) = [I_A^L(u), I_A^U(u)] \quad (9)$$

$$F_A(u) = [F_A^L(u), F_A^U(u)] \quad (10)$$

Definition 4

The m-polar neutrosophic soft set (mPNSS) can be defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)) : u \in U\} \quad (11)$$

Definition 5

The IVNSS can be defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)) : u \in U\} \quad (12)$$

$$T_A(u) = [T_A^L(u), T_A^U(u)] \quad (13)$$

$$I_A(u) = [I_A^L(u), I_A^U(u)] \quad (14)$$

$$F_A(u) = [F_A^L(u), F_A^U(u)] \quad (15)$$

Definition 6

The m-polar interval-valued neutrosophic soft set (mPIVNSS) can be defined as:

$$A = \{(u, T_A(u), I_A(u), F_A(u)) : u \in U\} \quad (16)$$

$$T_A(u) = [T_A^L(u), T_A^U(u)] \quad (17)$$

$$I_A(u) = [I_A^L(u), I_A^U(u)] \quad (18)$$

$$F_A(u) = [F_A^L(u), F_A^U(u)] \quad (19)$$

Definition 7

Let two mPIVNSS and the mPIVNSS is a subset of A if:

$$T_A^{LX}(u) \geq T_A^{LY}(u), T_A^{UX}(u) \geq T_A^{UY}(u) \quad (20)$$

$$I_A^{LX}(u) \geq I_A^{LY}(u), I_A^{UX}(u) \geq L_A^{UY}(u) \quad (21)$$

$$F_A^{LX}(u) \geq F_A^{LY}(u), F_A^{UX}(u) \geq F_A^{UY}(u) \quad (22)$$

Definition 8

Let two mPIVNSS and the X=Y if:

$$T_A^{LX}(u) \leq T_A^{LY}(u), T_A^{UX}(u) \leq T_A^{UY}(u), T_A^{LY}(u) \leq T_A^{LX}(u), T_A^{UY}(u) \leq T_A^{UX}(u)$$
(23)

$$I_A^{LX}(u) \geq I_A^{LY}(u), I_A^{UX}(u) \geq L_A^{UY}(u), I_A^{LY}(u) \geq I_A^{LX}(u), I_A^{UY}(u) \geq L_A^{UX}(u) \quad (24)$$

$$F_A^{LX}(u) \geq F_A^{LY}(u), F_A^{UX}(u) \geq F_A^{UY}(u), F_A^{LY}(u) \geq F_A^{LX}(u), F_A^{UY}(u) \geq F_A^{UX}(u) \quad (25)$$

Definition 9

The complement of mPIVNSS is defined as:

$$A_X = \begin{Bmatrix} \left([F_A^{LX}(u), F_A^{UX}(u)]\right), \\ [1 - I_A^{LX}(u), 1 - I_A^{UX}(u)] \\ [T_A^{LX}(u), T_A^{UX}(u)] \end{Bmatrix} \quad (26)$$

Definition 10

The union of mPIVNSS is defined as:

$$A_X \cup A_Y = \begin{Bmatrix} [\max\{T_A^{LX}(u), T_A^{LY}\}, \max\{T_A^{UX}(u), T_A^{UY}\}], \\ [\min\{I_A^{LX}(u), I_A^{LY}\}, \min\{I_A^{UX}(u), I_A^{UY}\}], \\ [\min\{F_A^{LX}(u), F_A^{LY}\}, \min\{F_A^{UX}(u), F_A^{UY}\}] \end{Bmatrix} \quad (27)$$

Definition 11

The intersection of mPIVNSS is defined as:

$$A_X \cap A_Y = \begin{Bmatrix} [\min\{T_A^{LX}(u), T_A^{LY}\}, \min\{T_A^{UX}(u), T_A^{UY}\}], \\ [\max\{I_A^{LX}(u), I_A^{LY}\}, \max\{I_A^{UX}(u), I_A^{UY}\}], \\ [\max\{F_A^{LX}(u), F_A^{LY}\}, \max\{F_A^{UX}(u), F_A^{UY}\}] \end{Bmatrix} \quad (28)$$

3. Methodology

This section shows the steps of the proposed approach.

Step 1. Select a set of criteria.

Step 2. Select a set of alternatives.

Step 3. Let a set of experts and decision makers evaluate the criteria and alternatives using the mPIVNSS.

Step 4. Apply the score function to obtain crisp values.

$$S(A) = \frac{1}{6m}\begin{pmatrix} T_A^{LX}(u) + T_A^{LY}(u) + 1 - I_A^{LX}(u) + \\ 1 - I_A^{UX}(u) + 1 - F_A^{LX}(u) + 1 - F_A^{UX}(u) \end{pmatrix} \quad (29)$$

Step 5. Combine the crisp values.

Step 6. Compute the final value of each alternative.

Step 7. Rank of alternatives.

4. Application of the proposed approach

This section shows the results of Integrating Sustainability into Logistics: A Performance-Based Evaluation of Green Supply Chains. This study uses the neutrosophic set to overcome uncertainty information. This study uses eight criteria and ten alternatives such as: Carbon Emissions Reduction, Energy Efficiency, Green Procurement Practices, Reverse Logistics Implementation, Environmental Compliance and Certification, Waste Management Efficiency, Sustainable Transportation Modes, Digitalization and Monitoring. The alternatives are EcoTrans Logistics, GreenCargo Express, SmartRoute Logistics, UrbanCycle Delivery, GreenFleet Systems, EcoReturn Logistics, SustainaShip International, CarbonNeutral Freight, Co. BioPack Movers, GreenMetrics Logistics.

Three experts and decision makers evaluate the criteria and alternatives using the mPIVNSS as shown in Table A1.

Step 4. Apply the score function to obtain crisp values using equation (29) as shown in Figures 1-3.

Step 5. Combine the crisp values as shown in Figure 5.

Step 6. Compute the final value of each alternative.

Step 7. Rank of alternatives as shown in Figure 6.

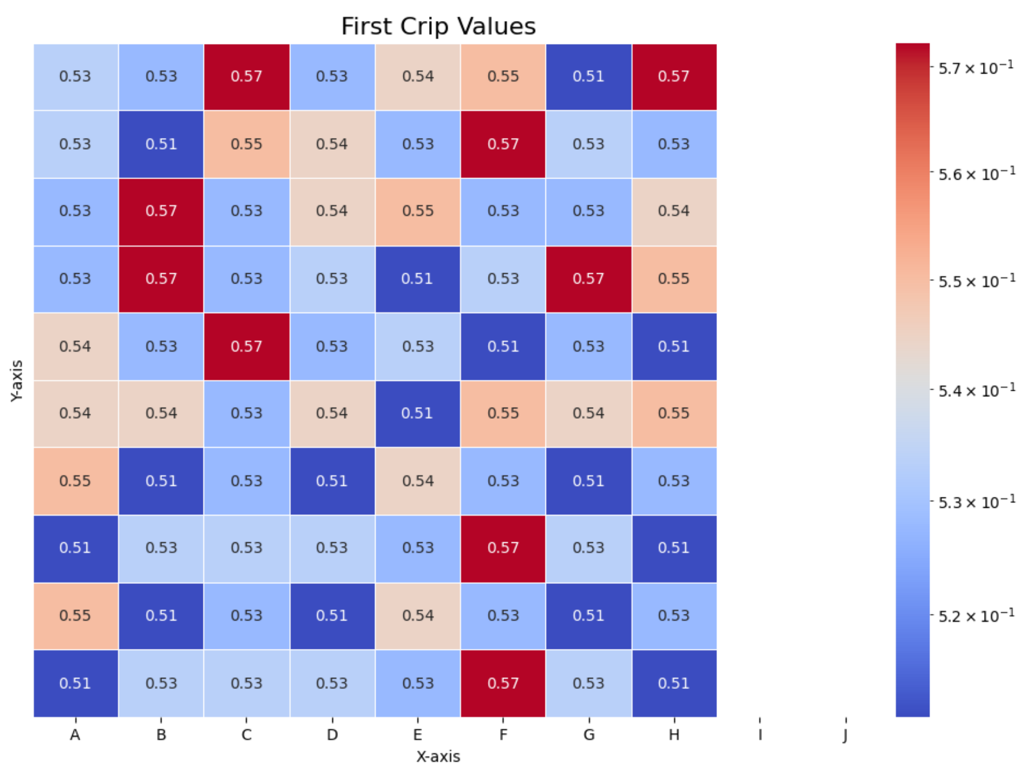

Figure 1. First DM1.

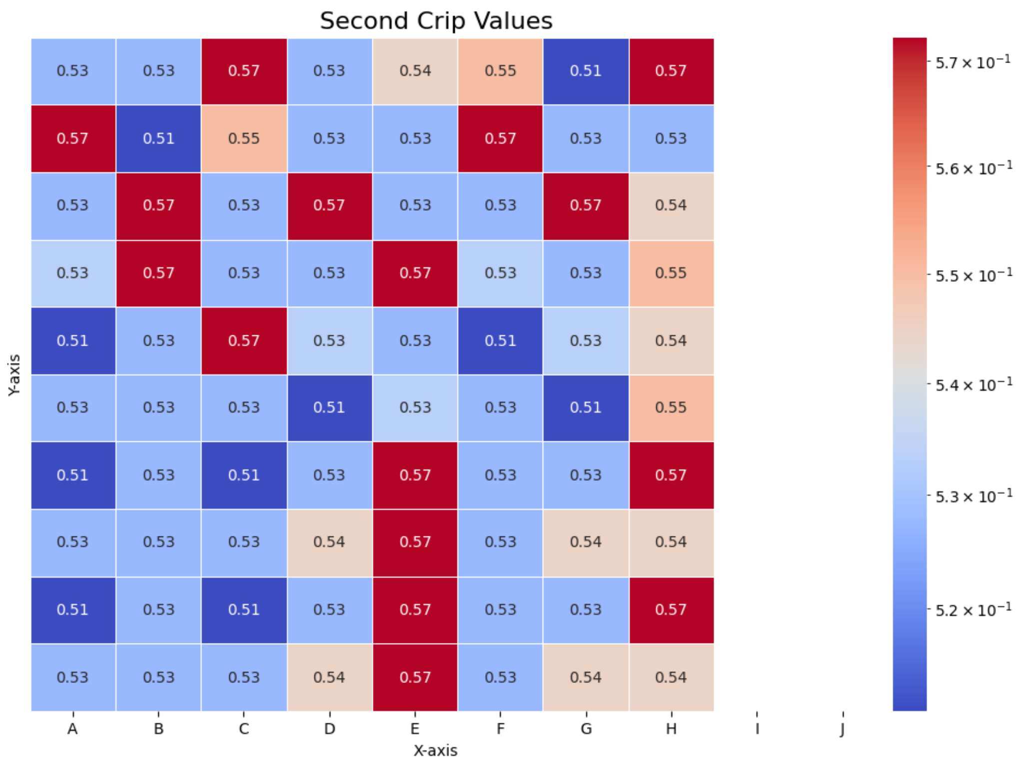

Figure 2. Second DM1.

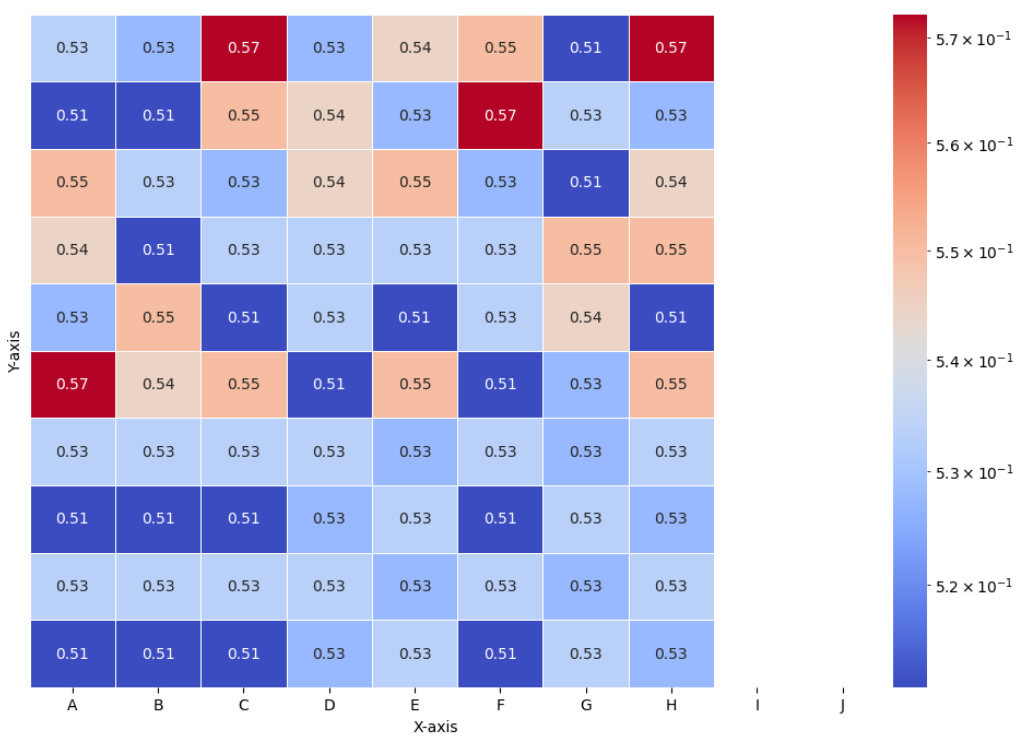

Figure 3. Third DM1.

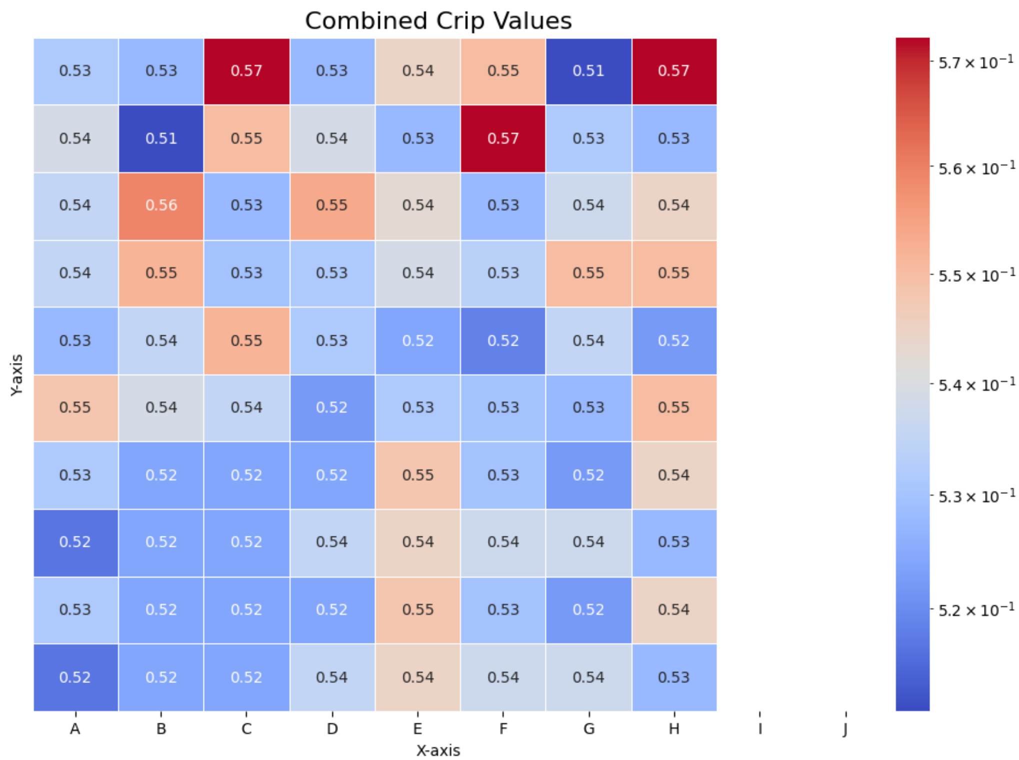

Figure 4. Combine crisp values.

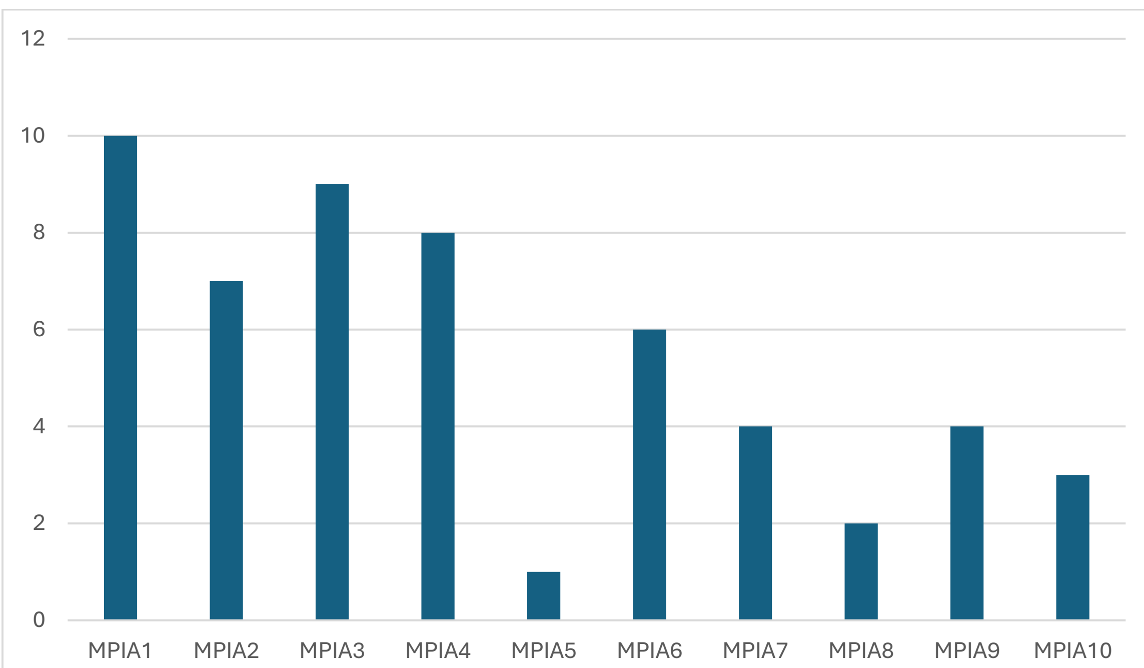

Figure 5. Ranks of alternatives.

5. Conclusions

The assessment of green supply chains in logistics companies highlights how sustainability is becoming a key performance indicator. According to the report, businesses that use cutting-edge technology like carbon tracking, AI-driven route optimization, and reverse logistics typically outperform their competitors on several sustainability metrics. Energy efficiency, digital monitoring, and lowering carbon emissions were shown to be the most effective factors in promoting green transformation. The logistics models that included renewable energy sources and multimodal transportation fared highest among those that were tested, proving that operational excellence and environmental responsibility can coexist. This study used the Multipolar Interval-Valued Neutrosophic Soft Set to overcome vague information. The proposed methodology is used under the neutrosophic set to rank the alternatives. Logistics firms may assess their sustainability efforts and prioritize improvements with the help of this performance-based analysis. In the end, incorporating sustainability into logistics is not just a strategic need but also a competitive advantage in the shift to more resilient and environmentally friendly global supply chains.

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Appendix

Table A1.

	MPIC1	MPIC2	MPIC3	MPIC4	MPIC5	MPIC6	MPIC7	MPIC8
MPIA1	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])
MPIA2	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])
MPIA3	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
MPIA4	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA5	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])
MPIA6	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA7	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])
MPIA8	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])
MPIA9	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])
MPIA10	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])
	MPIC1	MPIC2	MPIC3	MPIC4	MPIC5	MPIC6	MPIC7	MPIC8
MPIA1	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])
MPIA2	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])
MPIA3	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
MPIA4	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA5	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
MPIA6	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]),	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]),	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]),	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5,	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1,	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]),	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5,	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4,

	([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA$_{7}$	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])
MPIA$_{8}$	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
MPIA$_{9}$	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])
MPIA$_{10}$	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
	MPIC$_{1}$	MPIC$_{2}$	MPIC$_{3}$	MPIC$_{4}$	MPIC$_{5}$	MPIC$_{6}$	MPIC$_{7}$	MPIC$_{8}$
MPIA$_{1}$	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])
MPIA$_{2}$	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])
MPIA$_{3}$	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])
MPIA$_{4}$	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA$_{5}$	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])
MPIA$_{6}$	([0.2, 0.4], [0.3, 0.5], [0.3, 0.6]), ([0.2, 0.3], [0.2, 0.4], [0.4, 0.5]), ([0.4, 0.6], [0.1, 0.3], [0.2, 0.4])	([0.6, 0.7], [0.2, 0.3], [0.3, 0.4]), ([0.4, 0.5],[0.5, 0.8], [0.1, 0.2]), ([0.1, 0.2],[0.5, 0.8], [0.2, 0.4])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.5, 0 .6], [0.2, 0.3], [0.3, 0.4]), ([0.3, 0.5], [0.4, 0.5], [0.1, 0.3]), ([0.4, 0.6], [0.4, 0.5], [0.3, 0.5])	([0.5, 0.7], [0.1, 0.2], [0.5, 0.6]),([0.2, 0.4], [0.5, 0.6], [0.4, 0.6]),([0.2, 0.4], [0.3, 0.4], [0.2, 0.5])
MPIA$_{7}$	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])
MPIA$_{8}$	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])
MPIA$_{9}$	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])
MPIA$_{10}$	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.2, 0.3], [0.5, 0.7], [0.1, 0.3]),([0.3, 0.4], [0.2, 0.5], [0.5, 0.7]),([0.2, 0.4], [0.3, 0.5], [0.3, 0.6])	([0.3, 0.5], [0.2, 0 .4], [0.2, 0.6]), ([0.2, 0.3],[0.5, 0.7], [0.1, 0.3]), ([0.5, .6], [0.1, 0.3], [0.4, 0.6])	([0.4, 0.6], [0.2, 0 .3], [0.1, 0.4]), ([0.2, 0 .5],[0.2, 0.3], [0.1, 0.6]), ([0.3, 0.4], [0.2, 0.5], [0.5, 0.7])

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