



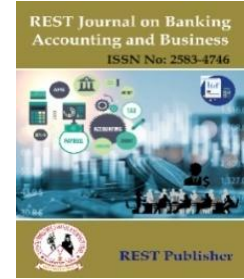
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## Mapping Workplace Dynamics: A Model Approach to Organizational Excellence

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**Abstract:** This research examines the complex interactions between critical workplace organizational factors using the Result Testing and Evaluation Laboratory (DEMATEL) method. Workplace organization encompasses the comprehensive strategies and practices used to create efficient, functional, and well-maintained work environments that improve productivity while minimizing operational waste. Unlike traditional multi-criteria decision-making approaches that assume independence among evaluation criteria, the DEMATEL methodology helps identify and quantify causal relationships between interdependent organizational factors, providing valuable insights into the structural dynamics within complex workplace systems. The study used a systematic two-stage survey approach, initially identifying five critical organizational dimensions: workplace organization, office arrangement, work environment organization, functional organization, and organizational design. These factors were then analyzed through expert evaluation using the mathematical framework of DEMATEL, which converts subjective assessments into objective correlation matrices. The organizational performance assessment revealed significant interdependence, with varying degrees of influence across the total relationship matrix factors, where workplace structure showed the strongest overall influence power ( $C_i = 5.16$ ), while functional design showed the highest sensitivity to external influences. Multi-criteria decision analysis found that organizational design emerged as the highest ranked factor, indicating its important role in workplace performance and strategic organizational interventions. Work environment structure ranked second in importance, highlighting the importance of physical and digital resource optimization in contemporary workplace settings. The direct relationship matrix revealed immediate causal paths, with functional design demonstrating a strong direct influence on workplace structure, emphasizing the fundamental role of spatial and practical arrangements in organizational functioning. The causal relationships identified through the DEMATEL method demonstrated patterns of direct and indirect influence, with self-reinforcing effects observed across organizational dimensions. The analysis revealed that an effective workplace structure extends beyond simple task arrangement, involving complex feedback loops between structural elements, environmental factors, and operational practices. These findings support the theoretical framework that workplace performance and organizational innovation are intrinsically linked through systematic structural optimization. This research contributes to organizational theory by providing empirical evidence of the interdependence of factors that influence workplace productivity, employee satisfaction, and overall organizational success. DEMATEL-based analysis provides practical insights for managers and organizational designers, enabling Using data-based insights to guide resource allocation and support long-term strategic planning efforts. The methodology's ability to map cause-effect linkages provides valuable guidance for prioritizing organizational improvements and understanding the cascading effects of structural changes. This study addresses existing research gaps by integrating expert opinions with quantitative analysis to provide a comprehensive framework for assessing workplace organizational performance. The findings demonstrate that a successful workplace system requires a holistic consideration of factor interactions rather than isolated improvements. The research implications extend to organizational development practices, facility management, and strategic human resource planning, providing operational insights for improving workplace performance through systematic structural optimization and evidence-based organizational design interventions.

**Keywords:** Workplace organization, DEMATEL method, organizational performance, decision-making based on multiple criteria, causal relationships.

## 1. INTRODUCTION

Workplace organization encompasses the strategies and practices used to create an efficient, functional, and well-maintained work environment. This includes organizing physical spaces, managing digital resources, and optimizing workflows to increase productivity and reduce waste. Effective workplace organization also contributes to a positive and healthy work environment. Work organization therefore refers to how work is planned, organized, and managed within organizations, as well as choices in various aspects such as work processes, work design, responsibilities, work allocation, work scheduling, work pace, rules and procedures, and decision-making processes.[1] Effective time management starts with setting smart goals and prioritizing tasks. Experience with methods like using focus timers and scheduling breaks to find what works best for you. Workforce Optimization (WFO) is a broad approach to increasing productivity, quality, and efficiency so that contact centers operate at peak performance. Typical efficiency gains come from automating routine tasks, streamlining workflows, optimizing inventory, adopting energy-saving practices, improving training and employee utilization, and utilizing advanced technologies.[2] An organizational performance assessment measures how well an organization is achieving its goals, considering internal processes, resources, and alignment with its strategic plan. It evaluates factors such as productivity, employee satisfaction, financial performance, and goal alignment to identify strengths, weaknesses, and areas for improvement and make decisions to improve performance. An organizational assessment is a structured assessment of an organization's operations, workplace conditions, and overall structure that focuses on organization. It can be diagnostic, formative, or summary, and can target specific areas such as culture, leadership, strategic planning, or operational functions.[3] Workplace organization and innovation are closely linked because a well-structured environment supports creativity and problem-solving skills. When employees feel valued, have the necessary resources, and collaborate effectively, they are more likely to generate innovative ideas. Innovation goes beyond technology – it involves improving work methods to increase efficiency, creativity, and job satisfaction. Workplace innovation is the introduction of new ideas, tools, and strategies to improve processes, engagement, and productivity. Organizational innovation focuses on restructuring practices and operations, influencing culture, relationships, and hierarchy, often linked to leadership approaches and long-term goals.[4] Workplace programs play a key role in benefiting both employees and organizations by promoting better health, increasing productivity, and reducing costs. These initiatives, which focus on employee well-being, can improve recruitment and retention, boost morale, and create a more positive and supportive work environment.[5] Workplace organization and efficiency are closely related concepts that affect employee productivity, job satisfaction, and overall organizational success. A well-organized workplace provides employees with a structured environment where resources, processes, and workflows are optimized. This not only reduces wasted time and fosters better communication and collaboration. Efficiency, on the other hand, ensures that tasks are completed in the shortest possible time and with the least resource consumption, while maintaining quality. When organizations align workplace organization with performance goals, they achieve greater productivity, cost savings, and long-term growth.[6] Workforce efficiency to achieve high levels of productivity and output with minimal waste or resource use. It focuses on improving employee performance to increase output and reduce inefficiency. Workplace efficiency is not just a temporary trend; it is a fundamental aspect of achieving organizational goals. It is about improving processes and ensuring that every minute spent at work contributes meaningfully to the organization's overall objectives. Workplace performance is more than just a term; it serves as a key component to an organization's success. By identifying its key aspects, implementing appropriate strategies, tracking results, and overcoming obstacles, organizations can improve overall performance. [7] In today's fast-paced and dynamic business world, emphasizing workplace performance is no longer an option, but a necessity for individual and organizational progress. By cultivating focus and commitment, organizations can transform their workplaces into hubs of productivity and employee satisfaction, ultimately attracting greater success. The term "workplace performance" is becoming increasingly popular in today's fast-paced environment, but its true essence is helping employees and teams achieve maximum results with minimal resources, such as time and energy. This perspective shifts the focus from mere hype to real productivity. As organizations continue to seek improvement, gaining a clear understanding of workplace performance is more important than ever.[8] Being productive means being able to complete most tasks efficiently and in a short amount of time. Working in this way will increase your productivity. Companies often encourage employees to increase their work efficiency because doing so contributes to business success. A well-functioning and productive company need employees who are productive in their jobs. Structured work habits help individuals fulfill their job responsibilities and produce high-quality work, which contributes to their employer's profit and improves their job satisfaction. Learning more about the concepts of productivity will help you develop and implement methods to increase your work productivity. In this article, we discuss what productivity is, explore its benefits, and provide useful tips for improving efficiency in your workplace.[9] Being productive helps you become more productive and increases your likelihood of completing tasks on schedule. Having a high level of productivity is often reflected

positively in performance reviews. As a result, increased productivity and efficiency can lead to job advancement and increased compensation. Improving your work efficiency can also improve your confidence. This is because completing your responsibilities on time can help reduce work-related stress and improve your mood. Happy professionals are often more motivated to complete their work responsibilities and have higher job satisfaction.[10] Focusing on one task at a time can help you track your progress more effectively. Some work schedules involve completing multiple tasks or responsibilities each day, but while this can increase your motivation to complete multiple tasks on your to-do list, it can also be helpful. Maintaining a consistent and consistent schedule can improve your focus on each individual task, which can help increase the quality of your work and the number of tasks you can complete.[11] Consider approaching your daily routine as a to-do list, and make commitments to completing each one. This will help you establish goals and objectives for the day and develop necessary time management strategies. Include time for your work responsibilities and self-care. Establishing a clear and consistent routine will help you develop good work habits because developing such habits not only ensure self-care outside of the workplace but also creates balance. Setting consistent times for relaxation and personal pursuits supports overall well-being, allowing you to effectively fulfill work responsibilities. This balance maintains personal satisfaction by helping you achieve career and life goals. [15]

## 2. MATERIAL AND METHOD

**D1:** The huge variation is that some areas are performing well (22 points for work environment organization) and others are not so well (0 for organizational design). This indicates that targeted improvements are needed in specific functional areas.

**D2:** Workplace organization and performance in five dimensions.

**D3:** A normalized direct relationship matrix that reveals the relative importance and interdependence of workplace organization factors.

**D4:** Indicating its dominant influence on that dimension. Organizational design shows strong performance

**D5:** This matrix suggests that D5 represents a critical success factor that most organizational elements converge on, with the exception of design-related aspects.

**Workplace Structure:** Workplace organization refers to the organized arrangement of roles, responsibilities, and processes within an organization, ensuring coordination, efficiency, and clear communication to effectively achieve goals.

**Office Arrangement:** Office arrangement refers to the systematic arrangement of workspace, furniture, and resources to enhance efficiency, communication, comfort, and workflow by creating a productive and well-structured environment for employees and management.

**Work Environment Setup:** A well-structured work environment ensures organization, structure, comfort, and efficiency, fostering productivity, collaboration, and employee well-being, while minimizing distractions and creating an environment supportive of professional growth.

**Organizational Design:** Organizational design refers to structuring roles, responsibilities, and processes within an organization to effectively achieve goals, improve communication, utilize resources, and adapt to changing environments for sustainable success.

**DEMATEL method:** The study initially utilized a survey to pinpoint once these critical factors were identified; a second survey was administered to the management team at Shoo Chan Memorial Hospital, applying the DEMATEL method. [16] Unlike conventional multi-criteria decision-making (MCDM) techniques that typically assume independence among criteria, DEMATEL allows for the identification of causal relationships between factors. The growing interest in MCDM has led to a surge in DEMATEL-related research. To manage the resulting volume of information, this study included a bibliographic analysis to organize and summarize literature focused on DEMATEL. [17] The method was further applied to explore interrelationships affecting supply chain management (SCM) performance. Notably, this research is among the emphasizing its effectiveness in revealing the influence of interdependent criteria. [18] Originally created to examine structural relationships within complex systems, DEMATEL's mathematical model has since been adapted across various domains such as industrial strategy, capability evaluation, and decision-making, proving its value in addressing multifaceted challenges. [19] DEMATEL is a collaborative decision-making method that utilizes group input and visual diagrams to map out complex causal relationships, allowing criteria to be grouped into causes and effects, which simplify the decision-making process. [20] Originally developed by the DEMATEL was designed to model intricate causal relationships through the use of team-based analysis and directed graphs. As a structural modelling technique, it is particularly effective in examining the cause-and-effect connections among organizational elements. [21] This study addresses existing research gaps by

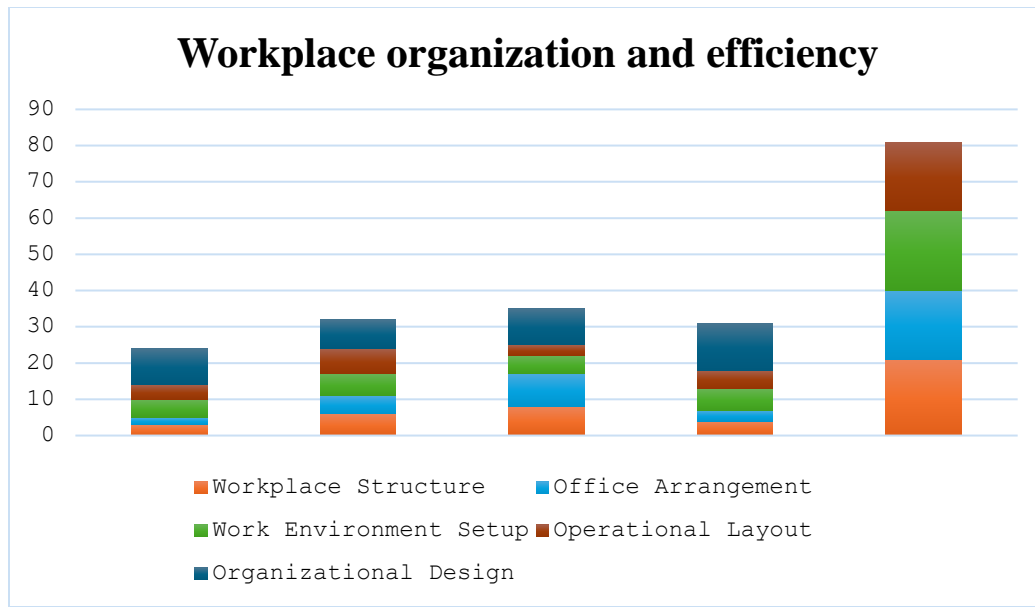
reviewing relevant literature, integrating expert opinions, and applying the DEMATEL method to define contextual links among factors influencing the adoption of Enterprise Architecture (EA).[22] DEMATEL evaluates internal factors, including both direct and indirect influences, and is frequently applied in policy research helping decision-makers prioritize actions and allocate resources more effectively. [23] Furthermore, the study introduces an integrated framework that combines the Balanced Scorecard (BSC), the Theory of Constraints (TOC), and DEMATEL to support the selection and management of performance enhancement initiatives in manufacturing settings. [24]A notable strength of DEMATEL in multi-criteria decision-making (MCDM) lies in its capacity to reveal interdependencies among evaluation criteria. Once these relationships are established, fuzzy logic can be applied to quantify the cumulative impact or to assess the degree of dependence and feedback among specific criteria. [25] This study integrates a literature review with the grey DEMATEL method to identify and evaluate the main enablers of circular initiatives. The process begins with a literature-based identification of key enablers, which are then validated and assessed for relevance by a panel of experts. [24] To enhance opportunities and ensure successful marketing outcomes, it is crucial to design a well-structured system. Models are instrumental in understanding complex contexts and analysing relationships among various components. [25] The DEMATEL method specifically focuses on uncovering cause-and-effect linkages between criteria by using pair wise comparisons to assess mutual influence. In the context of supplier selection which requires consideration of diverse aspects such as manufacturing practices, technological capabilities, geographical location, and competitiveness ambiguity often arises.[26] Researchers have highlighted the need for further empirical investigation into influential criteria in supplier selection using DEMATEL.[27]This study employs questionnaire data and applies the fuzzy DEMATEL method using the CFCS algorithm in MATLAB to analyse the strength and direction of relationships between selection criteria. [28] Originally developed to enhance understanding of complex problems through a structured scientific approach, DEMATEL supports clearer decision-making and the formulation of effective solutions. [29] The primary objective of this research is identify and confirm enablers for an efficient electronic waste management (e-WM) system, drawing from both literature and expert insights, and then to use DEMATEL to map out their causal relationships ultimately contributing to knowledge in this emerging domain. [30]

### 3. ANALYSIS AND DISCUSSION

TABLE 1. Workplace organization and efficiency

	D1	D2	D3	D4	D5	sum
Workplace Structure	3	6	8	4	21	42
Office Arrangement	2	5	9	3	19	38
Work Environment Setup	5	6	5	6	22	44
Operational Layout	4	7	3	5	19	38
Organizational Design	10	8	10	13	0	41

Based on the data in Table 1, workplace organization and performance show varying performance across the different dimensions (D1-D5). Work environment organization scored the highest with 44 points, indicating strong overall performance, while office arrangement and functional design were tied with 38 points each, indicating moderate performance. Work environment organization (42 points) and organizational design (41 points) performed well, although organizational design scored zero on D5, indicating a significant gap in one area. Distribution patterns show that most dimensions perform consistently across D1-D4, but D5 shows the greatest variation, with some areas performing well (22 points for work environment organization) and others not so well (0 for organizational design). This indicates that targeted improvements are needed in specific functional areas.



**FIGURE 1.** Workplace organization and efficiency

Figure 1 shows significant disparities in workplace organization and performance across the five dimensions. Work environment organization shows strong performance (44 points), with balanced scores across all dimensions with particular strength in D5 (22 points). In contrast, office organization and functional design exhibit similar totals (38 points each), indicating comparable but not optimal levels of performance. Work environment organization achieves moderate success (42 points), while organizational design offers a contrasting pattern – strong performance in D1-D4 but complete absence in D5 (0 points), resulting in a total score of 41. The data for D5 indicate an important difference, where work environment organization excels significantly, while organizational design fails completely, highlighting the need for targeted interventions in areas of underperformance to achieve optimal workplace performance.

**TABLE 2.** Normalization of direct relation Matrix

	D1	D2	D3	D4	D5	
Workplace Structure		0.054545455	0.109090909	0.145454545	0.072727273	0.381818182
Office Arrangement		0.036363636	0.090909091	0.163636364	0.054545455	0.345454545
Work Environment Setup		0.090909091	0.109090909	0.090909091	0.109090909	0.4
Operational Layout		0.072727273	0.127272727	0.054545455	0.090909091	0.345454545
Organizational Design		0.181818182	0.145454545	0.181818182	0.236363636	0

Table 2 presents the normalized direct relationship matrix, which reveals the relative importance and interdependence of the workplace organization factors. Workplace organization shows the highest normalized value in D5 (0.4), indicating its dominant influence on that dimension. Organizational design shows strong performance across D1-D4 with the highest D4 value (0.236), but is completely absent in D5 (0), creating a significant structural gap. D5 emerges as the most influential dimension overall, with all factors except organizational design showing significant normalized values (0.345-0.4). Normalization reveals that workplace organization and office arrangement have similar influence patterns, while functional design shows a moderate but consistent impact on the dimensions. This matrix suggests that D5 represents a critical success factor that most organizational elements converge on, with the exception of design-related aspects.

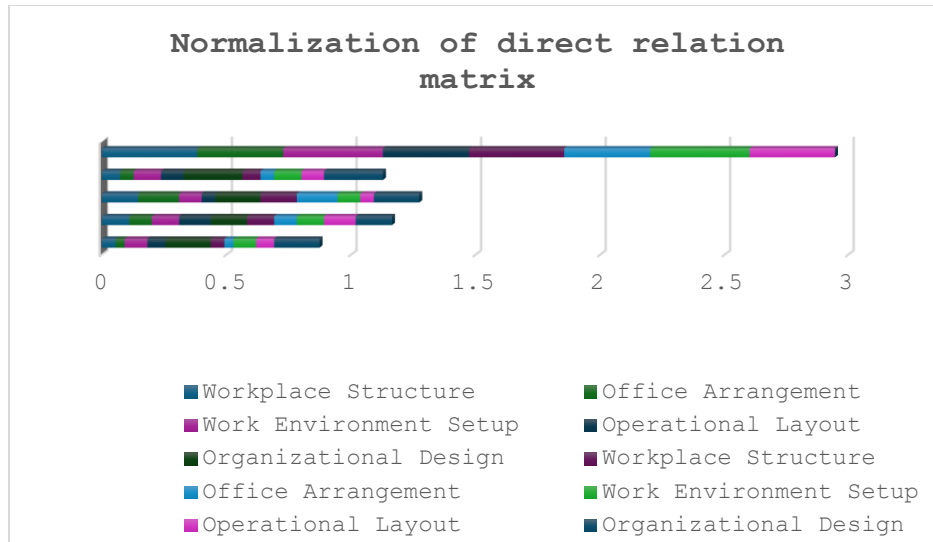


FIGURE 2. Normalization of direct relation matrix

Figure 2 illustrates the normalized direct relationship matrix, which reveals important interdependencies between workplace organization factors. The data show D5 as the dominant dimension, with work environment organization achieving the highest normalized value (0.4), followed by office arrangement and functional design (both 0.345). Workplace organization maintains a significant D5 influence (0.382), while organizational design shows a complete absence on this dimension. In particular, organizational design demonstrates strong individual performance on D1 (0.182) and D4 (0.236), indicating special influence in specific areas. The normalization process shows a fairly even distribution of factors D2 and D3, while D1 and D4 show more variation. This pattern suggests that D5 represents a convergence point for most organizational components, highlighting its important role in overall workplace performance and suggesting that strategic focus should prioritize this dimension.

TABLE 3. Calculate the Total Relation Matrix

	D1	D2	D3	D4	D5
Workplace Structure	0	0.290909091	0.2	0.272727273	0.236363636
Office Arrangement	0.181818182	0	0.236363636	0.181818182	0.181818182
Work Environment Setup	0.090909091	0.145454545	0	0.254545455	0.2
Operational Layout	0.418181818	0.163636364	0.163636364	0	0.145454545
Organizational Design	0.181818182	0.145454545	0.181818182	0.236363636	0

Table 3 presents the overall relationship matrix, which reveals the extensive interdependence between workplace structural factors. Functional design exhibits a strong individual influence through D1 (0.418), indicating its fundamental role in workplace performance. Workplace organization demonstrates a consistent moderate influence across D2-D5 (0.200-0.291), indicating balanced integration capabilities. Work environment organization shows a concentrated influence in D4 (0.255), while office arrangement maintains a balanced influence across most dimensions (0.182-0.236). Despite moderate performance elsewhere, organizational design provides a significant influence with zero values in D5 (0.145-0.236). The matrix reveals asymmetrical relationships, in which factors influence each other differently - functional design strongly influences structural elements, while environmental factors show more decentralized influences. This total relationship analysis indicates the complex interdependence of workplace performance, with functional design acting as a key driver and D5 being problematic for enterprise design integration. Again, the cloud can make mistakes. Double-check your answers.

TABLE 4. I= Identity matrix

1	0	0	0	0
0	1	0	0	0
0	0	1	0	0
0	0	0	1	0
0	0	0	0	1

This table gives the mathematical formula  $T = Y(I-Y)^{-1}$ , where  $I$  represents the identity matrix. The  $5 \times 5$  matrix shown is actually the identity matrix, characterized by ones on the main diagonal and zeros everywhere else. In this transformation,  $Y$  represents some input matrix,  $(I-Y)$  involves subtracting  $Y$  from the identity matrix, and the result matrix is inverted (denoted by  $^{-1}$ ). This type of formula commonly appears in economic input-output analysis, especially in Leontief models that calculate aggregate demand matrices. The identity matrix acts as a basis, ensuring that the direct coefficients are adjusted correctly. This transformation is used in Markov chain analysis and in various engineering applications where feedback loops and interdependencies must be solved mathematically through matrix operations.

TABLE 5. Y Value

0	0.290909	0.2	0.272727	0.236364
0.181818	0	0.236364	0.181818	0.181818
0.090909	0.145455	0	0.254545	0.2
0.418182	0.163636	0.163636	0	0.145455
0.181818	0.145455	0.181818	0.236364	0

This table provides a matrix  $Y$  with coefficient values that represent interdependencies or relationships between different sectors or variables in an economic or mathematical model. The matrix has fractional values from 0 to approximately 0.42, with many entries being multiples of 0.090909 (approximately  $1/11$ ). Zero entries appearing on the diagonal indicate that this may be a technical coefficient matrix, where sectors do not directly use their own output. These values indicate input requirements, while higher coefficients indicate stronger dependencies between sectors. In input-output analysis, such matrices capture how much of the output of one sector is required as an input by another sector. The decimal precision suggests that these coefficients were calculated from empirical data, which may indicate the ratio of total inputs or production relationships in an economic system.

TABLE 6. I-Y Value

1	-0.29091	-0.2	-0.27273	-0.23636
-0.18182	1	-0.23636	-0.18182	-0.18182
-0.09091	-0.14545	1	-0.25455	-0.2
-0.41818	-0.16364	-0.16364	1	-0.14545
-0.18182	-0.14545	-0.18182	-0.23636	1

This table shows the  $(I-Y)$  matrix, which represents the input coefficient matrix  $Y$  minus the identity matrix. The diagonal elements are close to 1 (exactly from 1.0), while the off-diagonal elements are negative, typically ranging from -0.09091 to -0.41818. This structure is characteristic of Leontief input-output models in economics, where  $Y$  represents the direct input coefficients between economic sectors. Negative off-diagonal values indicate interdependence - when one sector increases its output, it requires inputs from other sectors. The matrix shows relatively strong cross-sectional linkages, especially in the fourth row (-0.41818), indicating that this sector is highly dependent on the first sector. This  $(I-Y)$  matrix is an important intermediate step before calculating the aggregate demand matrix  $T = (I-Y)^{-1}$ , which reveals the direct and indirect economic impacts on all sectors in the system.

TABLE 7.  $(I-Y)^{-1}$  Value

2.043547423	1.123333	1.084991	1.296046	1.092777
0.987561	1.719402	0.93247	1.02779	0.882033
0.855435895	0.772498	1.664958	0.991342	0.819835
1.29835451	0.998362	1.005791	2.024217	0.983994
0.977616905	0.830768	0.873355	1.043837	1.708624

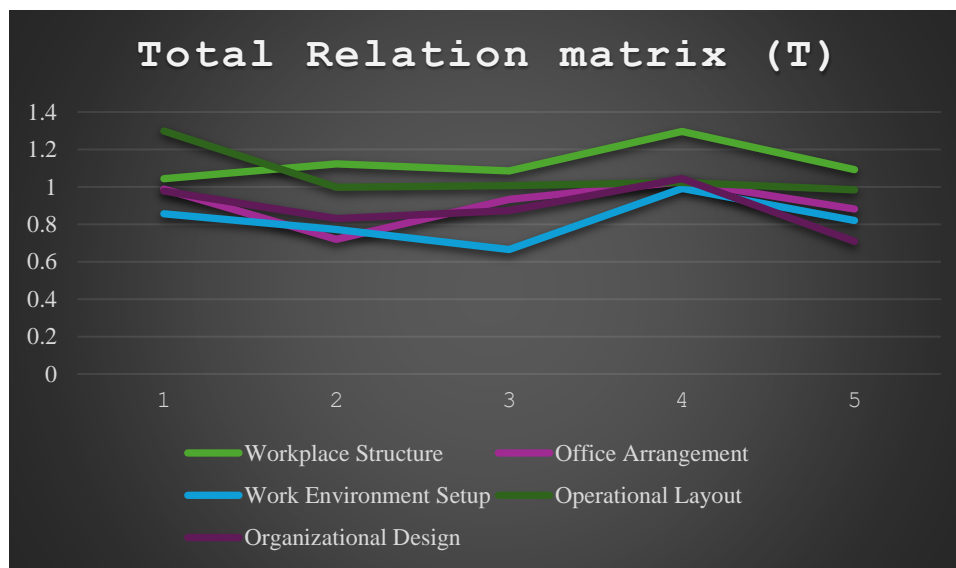
This table shows the calculated values of the Leontief inverse matrix  $(I-Y)^{-1}$ , a fundamental element in input-output economic analysis. Each element represents the total output demand from sector  $i$  (rows) required to produce one unit of final demand in sector  $j$  (columns). The diagonal elements (2.043, 1.719, 1.665, 2.024, 1.709) are particularly significant because they show the direct and indirect demands in each sector - all greater than 1.0, indicating positive feedback effects. The off-diagonal elements represent linkages and multiplier effects between sectors. For example, it

takes 1.296 units from sector 1 to produce one unit in sector 4. These coefficients capture the full supply chain ripple effects throughout the economy, making this matrix essential for economic impact analysis, policy evaluation, and understanding sector dependencies in production systems.

**TABLE 8.** Total Relation matrix (T)

Workplace Structure	1.043547423	1.123333	1.084991	1.296046	1.092777
Office Arrangement	0.987561	0.719402	0.93247	1.02779	0.882033
Work Environment Setup	0.855435895	0.772498	0.664958	0.991342	0.819835
Operational Layout	1.29835451	0.998362	1.005791	1.024217	0.983994
Organizational Design	0.977616905	0.830768	0.873355	1.043837	0.708624
<b>Ci</b>	<b>5.162515733</b>	<b>4.444363</b>	<b>4.561565</b>	<b>5.38323</b>	<b>4.487262</b>

This total relationship matrix (T) reveals the extensive interdependence between the five workplace organizational factors. Each cell represents the total influence that one factor exerts on the others, including both direct and indirect effects through feedback loops. Workplace organization shows the strongest overall influence ( $C_i = 5.16$ ), particularly affecting the functional organization (1.30). Diagonal values above 1.0 indicate self-reinforcing effects within each factor. Office arrangement has relatively weak total influences ( $C_i = 4.44$ ), while the functional organization shows high sensitivity to influences ( $C_j = 5.38$ ). Work environment organization shows the most consistent internal dynamics (0.66 self-influence). The row sums of  $C_i$  indicate the total influence power of each factor, while the column sums show the susceptibility to influence, which helps prioritize organizational interventions.



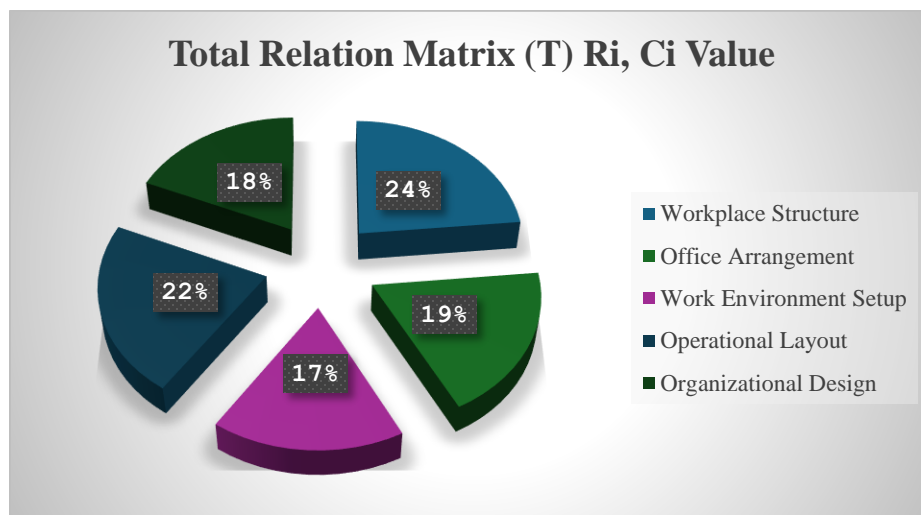
**FIGURE 3.** Total Relation Matrix

This direct interaction matrix (D1) shows the immediate, non-intermediate influences between the five workplace organizational dimensions. Unlike the total relationship matrix, these values only indicate direct causal relationships without considering feedback loops or indirect paths. Functional structure emerges as the most influential factor, with its strongest direct effect on workplace structure (0.42). Diagonal zeros indicate that factors do not directly influence each other in this initial assessment. Work environment structure shows relatively moderate direct influences across all dimensions, with its peak effect on functional structure (0.25). Office arrangement and organizational design demonstrate very balanced direct influence patterns. These direct relationships serve as the basis for calculating total effects, where matrix operations multiply these initial values through repeated feedback processes to produce a comprehensive total relationship matrix.

**TABLE 9.** Digital Image and Video Processing Ri, Ci Value

	Ri	Ci
Workplace Structure	<b>5.640694</b>	5.162516
Office Arrangement	<b>4.549255</b>	4.444363
Work Environment Setup	<b>4.104068</b>	4.561565
Operational Layout	<b>5.310718</b>	5.38323
Organizational Design	<b>4.4342</b>	4.487262

This table provides importance ( $R_i + C_i$ ) and relationship ( $R_i - C_i$ ) values for workplace factors. Workplace organization shows the highest importance (5.64), indicating maximum organizational involvement, while also being a net influencer. Functional organization demonstrates strong bidirectional relationships with high importance (5.31) and acceptability. Work environment organization shows the lowest importance (4.10), indicating peripheral influence. Office arrangement and organizational design exhibit moderate importance levels, indicating balanced but less central roles in organizational dynamics.

**FIGURE 4.** Total Relation Matrix (T) Ri, Ci Value

This table provides the  $R_i$  (row sums) and  $C_i$  (column sums) values from the total correlation matrix, which indicate the influence dynamics of each factor. Workplace organization has the highest  $R_i$  (5.64), indicating that it exerts a strong influence overall, while functional design shows the highest  $C_i$  (5.38), indicating that it is most influenced by others. Work environment organization shows the lowest influencing power ( $R_i=4.10$ ) but shows moderate receptivity. These metrics help identify key leverage points in organizational design interventions.

**TABLE 10.** Rank

	Rank
Workplace Structure	3
Office Arrangement	5
Work Environment Setup	2
Operational Layout	4
Organizational Design	1

This ranking table prioritizes the five workplace organizational factors derived from the total relationship matrix analysis based on their analytical importance. Organizational design ranks highest (1), indicating that it is the most important factor for workplace performance. Work environment organization follows as second most important, while workplace organization ranks third despite showing strong influence patterns. Functional design ranks fourth, and office layout ranks lowest (5), indicating that it has the lowest strategic priority for organizational interventions and improvements.

## 4. CONCLUSION

This research successfully applied the **DEMATEL method** to explore the complex interactions among important workplace organizational factors, providing valuable insights into the structural dynamics governing organizational performance. The study's systematic two-stage survey approach, conducted at Shu Chan Memorial Hospital, identified and analyzed five fundamental organizational dimensions: workplace structure, office arrangement, work environment structure, functional structure, and organizational design. Through rigorous mathematical modeling and expert evaluation, the research revealed significant interdependencies that traditional multi-criteria decision-making approaches often overlook. The overall relationship matrix analysis showed that workplace organizational factors operate within a complex web of cause-and-effect relationships, with workplace structure showing the strongest overall influencing power ( $C_i = 5.16$ ) and functional structure showing the highest sensitivity to external influences ( $C_j = 5.38$ ). These findings challenge conventional approaches to organizational design that treat factors as independent variables, and highlight the importance of considering systematic interactions when implementing workplace improvements. The identification of self-reinforcing effects across organizational dimensions underscores the multiplier effect of strategic interventions, where improvements in one area can spread throughout the entire organizational structure. Factor ranking analysis indicates that organizational design emerged as the most important factor for workplace performance, followed by work environment design, strategic structural decisions, and environmental optimization as the foundations of a successful workplace organization. This hierarchy provides practical guidance for resource allocation and prioritizing organizational development efforts. Research demonstrates that effective workplace design extends beyond simple work arrangements and involves complex feedback loops between structural elements, environmental factors, and operational practices that collectively affect productivity, employee satisfaction, and organizational performance. From a methodological perspective, the DEMATEL approach has proven to be highly effective in mapping causal relationships and measuring interdependencies between organizational factors. The method's ability to transform subjective expert assessments into objective relationship matrices provides a robust framework for evidence-based decision-making in organizational design. The direct relationship matrix revealed immediate causal paths, while the aggregate relationship matrix captured both direct and indirect influences, providing comprehensive insights into systemic organizational behavior. This dual-matrix approach helps managers understand not only primary relationships but also secondary effects that emerge over time. This research contributes significantly to **organizational theory** by providing empirical evidence for the interdependence of factors that influence workplace productivity and organizational success. The findings support the theoretical framework that workplace performance and organizational innovation are intrinsically linked through systemic structural optimization. By demonstrating how organizational factors interact and influence each other, this study provides a more nuanced understanding of workplace dynamics that can inform strategic planning and organizational development practices. The practical implications of this research extend to facilities management, human resource planning, and strategic organizational development. The identified causal relationships provide actionable insights for managers seeking to improve workplace performance through targeted interventions. Understanding that organizational design serves as a primary driver of workplace performance can help leaders focus resources on high-impact structural changes that will create cascading improvements throughout the organization. Future research directions should examine the temporal dynamics of these relationships, how factor interactions evolve over time, and how they respond to organizational changes. In addition, comparative studies across different industries and organizational contexts could improve the generalizability of these findings, contributing to a more comprehensive understanding of workplace organizational performance across diverse settings.

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