
The Role of Organizational Innovation in Organizational Immunity: The Mediating Role of Participative Leadership

Yazin Salim Muhammed

Department of Business Administration, College of Administration and Economics, University of Kerbala, Iraq

<https://orcid.org/0009-0009-1864-6495>

Email: Yazin.s@uokerbala.edu.iq

Abstract. *This study aimed to determine the mediating role of participatory leadership in organizational immunity by examining its application in Kerbala Cement Company. To accomplish this, the aspects of organizational innovation (product innovation, process innovation, and administrative innovation) were chosen above organizational immunity in its dimensions (organizational learning, memory, and DNA). Participatory leadership strengthens this relationship in its dimensions (delegation of powers, participation in decision-making, participation in information, and human relations). A random sample of employees in Kerbala Cement Company was selected as a field of research through a questionnaire that included (128) individuals. The significance of the correlation between the two variables was assessed using the (t) test, the regression model's significance was assessed using the (F) test, and the simple correlation coefficient (Person) was used. The relative quantity the independent variable contributes to explaining the dependent variable as a percentage was also determined using (R^2). The researcher's most notable conclusion is that participatory leadership serves as a mediating factor in the substantial impact of organizational innovation on organizational immunity. The research concluded with several recommendations, including focusing on organizational innovation by Kerbala Cement Company because it is an important factor in its work in general and in organizational immunity in particular.*

Keywords: *Organizational Innovation, Participative Leadership, Organizational Immunity, Kerbala Cement Company.*

INTRODUCTION

Organizations are undergoing rapid changes in economic, social, political, technological, and organizational factors resulting from the challenges of globalization, market openness, and the information revolution, which have had profound effects on the labor market. Organizations seek to restore balance to their businesses, economy, and market position. Here, organizational innovation emerges as a healthy aspect of business organizations, whether industrial or service, leading to organizational immunity. With its conceptual and applied frameworks, the research attempts to study the role of organizational innovation in organizational immunity through participatory leadership. Kerbala Cement Company was chosen as a pioneering field for studying the research variables and hypotheses.

LITERATURE REVIEW

First: Organizational innovation

The Latin words nova and innovate, which imply creating or developing something new, are the roots of the English word innovation. Since innovation is creating a new product or service with novel characteristics, developing a new entity and seeing it through to completion is seen as innovation. (Shaikh et al., 2018)

The concept of innovation in the business world was first introduced by (Schumpeter, 1934). It was proposed to create new brands, products, and processes. Therefore, it was considered at that time as a factor that impacted economic development. Since then, many scholars have described it as a concept for the long-term survival of companies. Moreover, as a result, innovation has been placed primarily within corporate culture. (Donatus&Obialor, 2022)

Therefore, the diffusion of innovation is the process by which a new object, practice, or idea is created based on the individual's perspective (Ameen et al., 2021). Innovation is disseminated through particular channels within the social system. Consequently, generating novel ideas is referred to as creativity, as there is a distinction between innovation and creativity. We can infer that creativity is a component of innovation, as it is the process of developing and implementing novel ideas and processes. To clarify the difference, (Rasool et al., 2019) may explain the concept of innovation in the company as the successful implementation of unique ideas for product development, process development, and administrative development. To make the vision clearer, without employees' creative ideas, there will be no innovation in companies. Therefore, companies first create ideas, second develop these ideas, and finally implement them. Third: improve the company's practices based on organizational methods. In light of this, (Chen et al., 2020) find organizational innovation as the innovation efforts adopted by companies. As a result, the more innovation efforts adopted by companies, the more innovative results that are relevant to the company.

According to (Tambago, 2022), organizational innovation is one of three forms of operational innovation, alongside marketing and technology advances. The company's primary business activity and changes in the social system, such as changes in structure, strategy, operations, and administrative practices, are the focus of corporate innovations. Wang (2020) describes organizational innovation as the deliberate introduction and application of new methods in ideas, processes, products, and procedures of roles, groups, or companies in the problem-solving process. Organizational innovation activities included coordination of departments, company resources, and coordination of structure and strategy. Aguiar et al. (2020) explain the concept of organizational innovation as routine procedures and work

organization processes associated with new forms of business organization. We conclude from this that there are three important pillars of organizational innovation: (1) work practices as new ways of organizing and procedures, (2) organizing the workplace as new ways of distributing responsibilities. In the same context, Minhaj et al. (2019) define organizational innovation as establishing a competitive advantage by implementing new and innovative work methods within the organization. This entails the administration of processes by individuals in a variety of areas, including the retention and development of employees, as well as knowledge management.

Consequently, innovation may pertain to a new product, technology, original process, or organizational structure within the organization. Alternatively, it is the effective execution of innovative concepts within the organization. (Yusof&Jamal, 2022). Al Jneibi et al. (2023) defined it as adopting a new or enhanced product, a novel approach, or a novel management practice.

In terms of the importance of organizational innovation, it is a major topic in many areas of business management, such as marketing and human resources by introducing new behaviors and ideas within the company as it is linked to changes in the administrative systems and procedures that have been introduced in the company to improve performance, coordination between departments, and motivate employees (Burbano et al., 2020). Consequently, the development of new ideas and innovation through ongoing research has become a top priority for the majority of companies, as innovation is a primary source of competitive advantage as a result of the intense global competition for the production of products and services and the advancement of technology (Fayomi et al., 2019). The importance of organizational innovation can be summarized in several points indicated by some researchers:

- Organizational innovation is instrumental in implementing new practices that improve learning and knowledge sharing within the organization. For example, it enables the establishment of databases to identify the practices that employees prefer and to facilitate access to them (Nguyen-Van&Hua-Chang,2021)
- Organizational innovation is an important factor in ensuring future improvement and survival in any business. Thus, innovation helps the company keep pace with changes in the environment and labor market needs. (Alharbi et al.,2019)
- It has long-term competitive benefits for companies, as it is a company-specific, unique, valuable, and difficult-to-replicate resource. (Basit,2021)

- It enhances the company's capabilities by reducing administrative costs, enhancing internal coordination and cooperation, and improving workplace satisfaction. (Nguyen-Van&Hua-Chang,2021)
- It increases company performance and brings new organizational methods and resources to business practices, workplaces, or companies' innovation activities. (Chen et al.,2020)
- It contributes to the company's growth and is an important tool for creating differentiation in work to achieve competitive advantages and develop the company's performance. (Burbano et al.,2020)
- It mainly improves the efficiency of the work of the working individuals and, achieves the goals, and then enhances the company's performance in general (Abdirahman&Ta-Wee,2022)
- Providing the company with new human resources that carry knowledge and experiences different from what the company possesses plays a vital role in achieving the company's strategic goals of technological and operational innovations. (Hussein et al.,2023)
- It reduces the challenges facing companies in the market by providing new products and solutions only, but also related to changing the nature of management within companies towards improving productivity, customer service quality, and performance. (Khosravi et al.,2019)

Donatus and Opialor (2022) confirmed that organizational innovation is a multidimensional concept related to different parts and processes of the company. **Organizational innovation can be measured through the nature of** the study and its various dimensions. The researcher will rely on the study (Ameen et al., 2021) to measure organizational innovation, as shown in the following:

A. Product Innovation: Donatus and Opialor (2022) refer to the concept of product innovation as the extent to which a company can be a pioneer in providing new services, allocating financial resources for research and development, etc., as operational indicators of service innovation, pioneering in introducing new products and trying to develop new products in the form of training individuals and teams in the company. Hence, this type provides a means to introduce, develop, and provide new and improved products. According to Al-Hawamdeh and Alshaer (2022), product innovation is the process by which companies introduce new products or make modifications and improvements to existing products, including their specification components and provision methods. This may involve the development of new products, changes in the design of existing products,

or the use of new materials or components to manufacture existing products. There are two types of product innovation:

- **Radical Innovation:** This form of innovation is defined (Gomes et al., 2019) as the company's tendency to introduce new products with significantly different technology or a new technology that provides better advantages than previous products.
- **Incremental Innovation:** A series of minor enhancements or modifications to a company's current services, processes, or methods are implemented. The modifications are intended to enhance the efficacy of current product development, productivity, and competitive differentiation (Al-Hawamdeh & Alshaer,2022). Incremental innovation is defined by (Hongdiyanto et al.,2022) as a relatively minor deviation from current practices that enhance an existing product or procedure without disrupting the organization's current structure and strategy. This type of innovation frequently strengthens the position of incumbents and introduces relatively minor modifications to existing products.

B. Process Innovation: Donatus & Opialor (2022) show that the concept of process innovation is the extent to which a company adopts new technologies and tests new ways of doing work, such as operational indicators of process innovation changes in the service delivery process and finding new ways and methods of doing things and pioneering new methods of managing daily routine operations. From the point of view of (Lisa, 2021), process innovation is a tool for maintaining and improving quality and saving costs. It involves adopting new or improved methods of service delivery. To be more precise, process innovation encompasses any aspect of a product's development, production, and preparation, including the enhancement of the service delivery process and the delivery system. This is because the innovation process entails the interaction of individuals with innovative objects. Researchers (Köhne & Sawyer, 2018) consider that to apply scientific innovation in companies. Three important components are assumed to be available: **(technology and compatibility, knowledge, resources, and capabilities)**

C. Administrative Innovation: Donatus and Opialor (2022) explain the concept of administrative innovation, which encompasses new procedures, policies, and organizational forms. They also discuss how managers employ new management systems to manage the company, including operational indicators of administrative innovation, searching for new management systems, and establishing new structures and relationships within the company. Lisa (2021) explained that administrative procedures include

integrating products and processes into the company's operations, such as improving marketing and administrative methods. Procedural innovation includes the way the public interacts with services. According to the researchers (Al-Hawamdeh & Alshaer, 2022), administrative innovation encompasses all changes in organizational structure, task design methodologies, decision-making procedures, and administrative processes that occur inside the corporation. It also comprises the tactics that the firm employs to adapt to its environment, as well as the processes and behaviors that enhance the organizational climate and contribute to the motivation and empowerment of human resources. According to (Cho et al., 2019), administrative innovation aims to improve the company's capacity by changing its organizational structure and administrative processes. This type of innovation is done through communication between employees with the same goal or mission.

Second: Participatory Leadership

Participative Leadership is the most important style in team performance, guided by the ideas of several old theories, including: (trait theory, behavior theory, situational theory) and modern theories such as: (transformational leadership theory and charismatic leadership theory). Participatory Leadership is a new and emerging concept of an individual with very high skills and experience, and it is the distinguished role represented in influencing the setting of goals and behaviors (Wellman, 2013) it was also defined by (Chen, 2014) as leadership that emerges from positive interactions between team members, and leads to higher performance. Another noted that it is a feature of contemporary leadership built on trust, collaborative decision-making, encouraging societal acceptance of duties, enhancing participant performance, strong morale, and a culture of high expectations for progress (Reiche et al., 2016). From here, we can conclude that participatory leadership is a set of behaviors that demonstrate collaborative and collective work among team members, and its content appears through cooperative decision-making and shared responsibility among members.

The importance of participatory leadership is highlighted by building and preparing a safe psychological climate for teamwork, encouraging its members to think freely, discuss opinions and ideas openly, and avoid personal interest by influencing the system of values and ideas that individuals believe in (Droge, et al., 2015). Pearce & Conger (2002) has identified a set of points that highlight the importance of participatory leadership as follows:

- Encourages innovative and consistent behavior among team members.
- Participatory Leadership effectively transforms vertical and horizontal organizations, reintegrating work teams.

- Contributes to building positive work relationships among all individuals working in the organization.
- Freedom and the ability to speak openly during the implementation of participatory activities increase satisfaction levels and define the organization's identity among its members.
- It exemplifies positive work behavior, influences all working individuals, and motivates and encourages work teams.
- Successful results achieved through participatory leadership lead to recognition of the importance of each factor in this success, which motivates work teams to achieve growth and stability for the organization.

In terms of the dimensions of participatory leadership, (Gyasi, 2015) identified the following dimensions of participatory leadership:

A. Delegation of powers: Gyasi (2015) believes that the delegation of powers in administrative work arose due to the increased functions and responsibilities of senior administrative officials and decision-makers in organizations and companies. Therefore, it has become difficult for managers and senior officials to perform all functions and lead with all responsibilities, even if they have high experience and competence. Delegation of powers also allows senior managers to deal with more serious work tasks, including administrative decisions that help achieve the organization's desired goals. (Colombo et al., 2021) In the context of open innovation, organizations that participate in open innovation tend to delegate authority over innovation decisions, emphasizing the advantages of a large delegation of authority over innovation decisions, as the decision-making delegation allows employees to benefit from their personal information and social connections to identify relevant external sources of knowledge and to enter this knowledge into internal sources. Successful delegation, which employees see as leading to greater organizational commitment and a desire to stay with the organization.

B. Participation in decision-making: EzeanoIue & Ezeanyim (2020) explained that employee participation in the decision-making process about building a favorable environment that enables employees to influence the procedures and decisions that affect the provision of better performance and is a new element essential to the successful implementation of most business strategies, and plays an important role in determining the degree of good organizational citizenship, and employee participation in decision-making had become an important topic in human resources management, and constitutes one of the

main components of the employee's voice, as well as allowing employees to participate in decision-making leads to increased motivation, job performance and organizational growth.

C. Information sharing: To remain competitive and endure in the contemporary knowledge-based economy, Lee et al. (2019) posited that organisations must foster innovation among their employees in providing services. This is the ability to access the required information through effective communication systems. AIoIa et al. (2019) also confirmed that many organizations have invested in coordinating knowledge within the organization by sharing information, knowledge, and management systems in order to fully benefit from the collective knowledge of employees, while many organizations accept innovation as a basic tool for achieving a strategic competitive advantage, most of them focused primarily on product innovation and service provision.

D. Human relations: are how employees relate to each other and how they work together in special groups at work, which achieves the goals of individuals and the group (Geoffrey, 2021), and that in light of the changing and unpredictable global environment characterized by unsustainable competition, organizations need to be agile in order to achieve success, and in order to maintain this advantage, small and large organizations must be more flexible in order to survive and thrive. Oktavirani & Sus (2021) said that high employee turnover can harm the quality of the organization and its ability to meet the changing needs of employees. In contrast, employee turnover can be minimized by the organization by developing strategies to activate human relations programs, as human relations play a role in motivating other employees by demonstrating the good attitudes and behaviors necessary to support and implement the company's competitive strategy, self-awareness and self-acceptance, and conflict resolution.

Third: Organizational Immunity

Organizational immunity is derived from the immunity of the human body, as the organization is analogous to the human body. The human body perceives and senses viruses when exposed to them and subsequently defends itself and resists viruses in order to protect the body and treat them. The body also learns how to repel future attacks by storing what it may be exposed to in memory. Organizational immunity has been defined as a social entity with the primary objective of establishing a defense system to confront potential threats and survive or impact the organization's work (Alshawabkeha, 2021).

Alternatively, it is an internal system of effective organizational entities that can predict and resist unwanted changes in the organization's current status (Bhattarai, 2022). The researcher

believes that organizational immunity is a system of senses that detect the risks facing organizations and analyze the risk, respond to it, process it, and store it in memory to bring it when needed.

In terms of the importance of organizational immunity, organizational immunity is of great importance to the organization, and this was confirmed by (Alshawabkeh, 2021) as follows:

- Immunity creates a protective framework for organizations to address dangers that may jeopardize their existence or impact their operations. These hazards may be produced organically by the organization's internal or external environment, and they must be addressed by a systematic defense that involves persuasion or deterrence.
- Immunity is the outcome of development that demonstrates the organization's capacity to adjust to challenges, such as the growing complexity of organizations.

The organization's rules, procedures, processes, and culture work together to create an impenetrable barrier against external threats and change.

- Organizational immunity is a system of organizational operations implemented by all components and functions of the organization to adapt, correct, and develop its outputs and choices in accordance with environmental changes and developments regularly to confront the turbulent environment. The organization is committed to updating and developing internal methods and addressing weaknesses.

Based on the above, we see that organizational immunity is important in how reconciling the organization's aspirations for development and change with preserving the organization by protecting it from any threat that may affect it, whether from within or from outside, through centralization in decision-making while giving powers and participation in decision-making.

In terms of measuring organizational immunity, researchers have mentioned many organizational dimensions, and after reviewing them all, we see that the dimensions with the most agreement among them are as follows (Mahmood & Al-Jader, 2021), (Tu & Wu, 2021)

A. Organizational learning: Organizational learning is considered one of the necessary things at present for several reasons, including scientific development, the race towards technology, the emergence of competition between organizations, and globalization, which has led to interest in organizational learning. It was defined as the process of social interaction in which new knowledge is created, interpreted, integrated, and institutionalized continuously at multiple levels (individuals, teams, and organizations) to meet the

organization's goals or adapt to environmental changes. Organizational learning is a preparation for organizational change. (Tu, & Wu, 2021).

B. Organizational memory: Organizational memory refers to storage systems and archiving documents, previous experiences, and acquired knowledge, as well as retrieval. The need for it has increased with the exacerbation of the problem of data and information flow, the advancement of the age of most of its employees, and the increased risk of losing it. Therefore, interest in developing organizational memory has become by providing means that help store, preserve, and retrieve this knowledge and information from the past. These means are represented in the necessity of providing efforts, technical capabilities, and cognitive cadres that facilitate information flow and communications (Sabariego, et Al, 2021). Organizational memory is the term used to describe the information retained from the organization's history and can be utilized to inform current decisions. (Etikariena, & Muluk, 2014)

C. Organizational DNA, The concept of regulatory genes of the organization, refers to the concept of genetic genes in humans, as regulatory genes carry the organization's internal characteristics, largely control those characteristics, and are therefore responsible for the information recorded in them. The decisions built on this information are necessary to achieve the organization's goals, and a mutation may occur in the regulatory genes of the organization as a result of factors from within or outside the organization. The genetic mutation may have beneficial results, allowing the organization to adapt to internal and external changes (Ivanov, 2013). The organizational DNA is a database that individuals can access if they have information about the organization, its structure, and the relationships that link the worlds from inside and outside the organization. (Assayah, 2020).

METHODOLOGY

First: Research Problem

The research problem is represented by the weak awareness and deficiency of the research sample regarding its variables. Therefore, the research problem can be embodied by identifying organizational renewal from the point of view of the research sample, its prevailing nature at Kerbala Cement Company, and the degree of its contribution to organizational immunity

through participatory leadership. The field problem of the research can be clarified through the following questions:

1. Does Kerbala Cement Company adopt organizational innovation to obtain the desired organizational immunity through participatory leadership? Does organizational innovation impact organizational immunity through participatory Leadership in Kerbala Cement Company?
2. Is there a relationship between organizational innovation and organizational immunity in Kerbala Cement Company?
3. Is there an impact of organizational innovation on organizational immunity in Kerbala Cement Company?

Second: Research Importance

1. The novelty of the research variables, which requires writing about them theoretically and the possibility of applying them practically.
2. We chose three modern variables and applied them in a place we believed was appropriate.
3. Kerbala Cement Company's investment in organizational innovation, considering that it deals with large segments of workers, requires it to focus on organizational innovation to achieve excellence and achieve the desired organizational immunity through participatory leadership.
4. Pointing out the strengths and weaknesses arising from organizational innovation and their reflection on organizational immunity in Kerbala Cement Company.
5. Linking organizational innovation with the participatory Leadership of Kerbala Cement Company's workers to achieve organizational immunity.

Third: Research Objectives

1. Identifying the reality of organizational innovation prevailing in Kerbala Cement Company and trying to measure it to reveal the extent of its consistency with the reality of the current research.
2. Identifying the reality of Kerbala Cement Company in terms of its investment in participatory leadership in achieving organizational immunity and the extent of its compatibility with its solid position.
3. Measuring the impact of organizational innovation on organizational immunity through the participatory Leadership of Kerbala Cement Company.

Fourth: Research model

A hypothetical diagram has been created to show how participatory leadership bridges organizational innovation and resilience. It has been formulated based on the administrative

literature related to the research specialization (organizational theory and organizational behavior). This diagram includes the following:

- 1. Independent Variable (X):** It is represented by the dimensions of organizational innovation (product innovation, process innovation, administrative innovation) (Ameen, et al, 2021)
- 2. Mediating Variable (Y):** It is represented by participatory leadership with its dimensions (delegation of powers, participation in decision-making, information, human relations). (Gyasi, 2015)
- 3. Dependent Variable (Z):** It is represented by the dimensions of organizational immunity with its dimensions (organizational learning, organizational memory, organizational DNA). (Mahmood&Al-Jader, 2021) (Tu&Wu, 2021) As shown in the following figure (1):

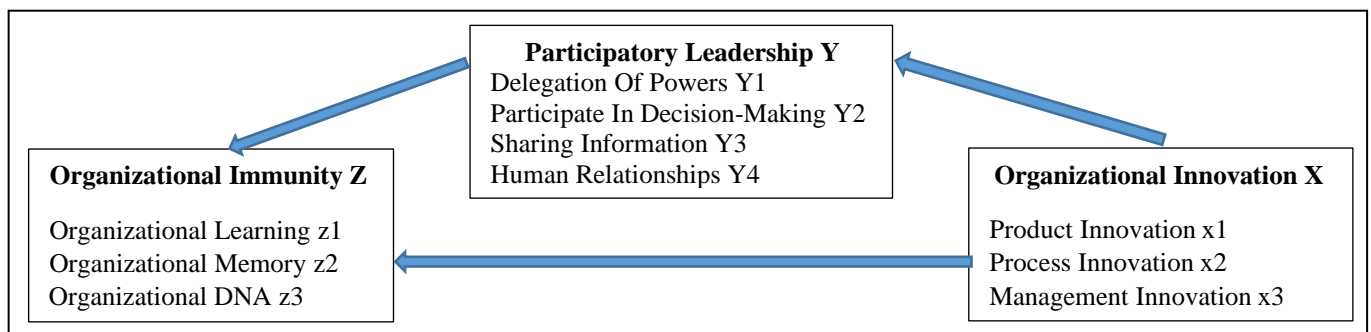


Figure (1) Research Model

Fifth: Research Hypotheses

H1: There is a statistically significant effect of organizational innovation in its dimensions on participatory leadership.

H2: There is a statistically significant effect of organizational innovation in its dimensions on organizational immunity.

H3: There is a statistically significant effect of participatory leadership on organizational immunity.

H4: There is an effect of organizational innovation on organizational immunity through participatory leadership.

Sixth: Research Limits

1. **Spatial Boundaries:** Kerbala Cement Company was chosen as the research community because it is the closest and most appropriate to test the research hypotheses and achieve its main objectives, which gives importance to the research and the possibility of generalizing its results.
2. **Time Boundaries:** This is represented by the period of time that the researcher took to write the theoretical aspect, distribute the questionnaire, retrieve it (data collection), and conduct appropriate statistical treatments (data analysis stage) to obtain the results (stage of drawing conclusions and making appropriate recommendations) to serve those institutions based on the sample responses for the period (1/8/2024 AD - 15/11/2024 AD).
3. **Human Boundaries:** This is represented by the employees of Kerbala Cement Company. Who were chosen according to the random sample method to avoid the bias error that appears to affect the statistical results at the sample and community levels alike? The sample amounted to (128) individuals.

Seventh: Research Mythology

The descriptive inductive approach was followed in the theoretical aspect, and the applied analytical approach was followed in the practical aspect.

RESULT

1. Descriptive Statistics And Correlation

Table (1) illustrates the outcomes of correlation analysis and descriptive statistics. The mean and standard deviation values for Organizational Innovation, Participatory Leadership, and Organizational Immunity are $M = 3.51$, $SD = .731$, $M = 3.91$, $SD = .593$, and $M = 3.99$, $SD = .620$, respectively. The Pearson correlation coefficient indicates a positive and significant association between Organizational Innovation and Organizational Immunity ($r = .840$, $p < 0.1$), as well as between Organizational Innovation and Participatory Leadership ($r = .826$, $p < 0.1$). Additionally, research shows that Participatory Leadership and Organizational Immunity are positively correlated ($r = .836$, $p < 0.1$). The research hypotheses anticipated these relationships.

Table (1) Mean, standard deviations, and correlations between main variables

| Variables | M | SD | 1 | 2 | 3 |
|---------------------------|------|------|--------|--------|--------|
| Organizational Innovation | 3.51 | .731 | 1 | .826** | .840** |
| Participatory Leadership | 3.91 | .593 | .826** | 1 | .836** |
| Organizational Immunity | 3.99 | .620 | .840** | .836** | 1 |

Note N=128, ** $p < 0.01$

2. Reliability And Validity Measurement

The Confirmatory Factor Analysis (CFA) analysis findings are shown in Table (2). If the parameter estimations are more than 40%, they are practical and acceptable. The statistical parameters can be more dependable when the standard errors are smaller, and the opposite is also true. The significance of the parameter estimates is determined by the critical ratio (CR), which represents the statistical scale. The parameter estimates are significant if they exceed the critical ratio (1.96) at the level of significance (5%), and if they exceed (2.56) at the level of significance (1%) (Holtzman & Sailesh, 2011). With the exception of items 1, 2, and 3 from Sharing Information and 5 from Human Relation, any value over 0.40 (loading) indicates statistical acceptance.

Additionally, the conformance structural equation modeling's indicators and base quality are beyond the statistically permissible limitations. This table shows the reliability analysis using Cronbach's alpha. The results are larger than 0.7, suggesting that this study's research instrument has high internal consistency (Sharma, 2016). As a result, it is possible to state that the measuring paradigm used in this research meets reliability and validity standards.

Table (2) Confirmatory Factor Analysis and Cronbach's Alpha

| Variables (Dimensions) | Cranach's Alpha | Loading | Quality Indicators |
|----------------------------------|-----------------|---------|--|
| Organizational Innovation | 0.90 | | CIMN/DF=1.617 GFI=.920 CFI=.963 IFI=.963 RMSEA=.070 |
| Product Innovation | 0.71 | .770 | |
| | | .478 | |
| | | .534 | |
| Process Innovation | 0.74 | .762 | |
| | | .717 | |
| | | .636 | |
| Administrative Innovation | 0.84 | .500 | |
| | | .776 | |
| | | .800 | |
| | | .727 | |
| Participatory Leadership | 0.90 | .782 | |
| | | | |
| | | | |
| | | | |
| Delegation of powers | 0.86 | .463 | |
| | | .781 | |
| | | .785 | |

| | | | |
|---|-------------|---------|--|
| | | .867 | RMSEA=.059 |
| | | .821 | |
| Participation in Decision Making | 0.85 | | |
| | | .597 | |
| | | .630 | |
| | | .807 | |
| | | .802 | |
| | | .827 | |
| Sharing Information | 0.77 | | |
| | | Deleted | |
| | | Deleted | |
| | | Deleted | |
| | | .729 | |
| | | .861 | |
| Human Relation | 0.88 | | |
| | | .787 | |
| | | .903 | |
| | | .820 | |
| | | .724 | |
| | | Deleted | |
| Organizational Immunity | 0.86 | | CIMN/DF=1.594 GFI=.890 CFI=.944 IFI=.946 RMSEA=.068 |
| Organizational Learning | 0.81 | .655 | |
| | | .726 | |
| | | .763 | |
| | | .678 | |
| | | .586 | |
| | | .655 | |
| Organizational Memory | 0.76 | | |
| | | .602 | |
| | | .720 | |
| | | .525 | |
| | | .503 | |
| | | .696 | |
| Organizational DNA | 0.78 | | |
| | | .636 | |
| | | .699 | |
| | | .663 | |
| | | .738 | |
| | | .824 | |

3. Tests Of Hypotheses

Through Participatory Leadership, this investigation studied the influence of Organisational Innovation on Organisational Immunity. Table (3) and the structural model illustrates the direct effect, C.R, and P-value. The Structural Modelling Equation was utilized to demonstrate the direct influence, as shown in table (3). The study found a significant correlation ($\beta = 0.46$, $p < .001$) between organizational innovation and participatory leadership, confirming hypothesis 1. Organizational innovation has a negative relationship with Organizational Immunity ($\beta = -0.26$, $p > .005$), rejecting H2. Similarly, H3 shows a positive relationship between Participatory Leadership and Organizational Immunity ($\beta = 0.55$, $p < .001$). To evaluate H4, bootstrapping analysis was performed on 5,000 sub-samples to determine the correlation of bootstrapping samples using a 95% confidence interval (CI), as proposed by Preacher and Hayes (2018). Using Amos software, the mediating impact of Participatory Leadership on the connection between Organisational Innovation and Immunity was confirmed. Therefore, H4 is likewise supported.

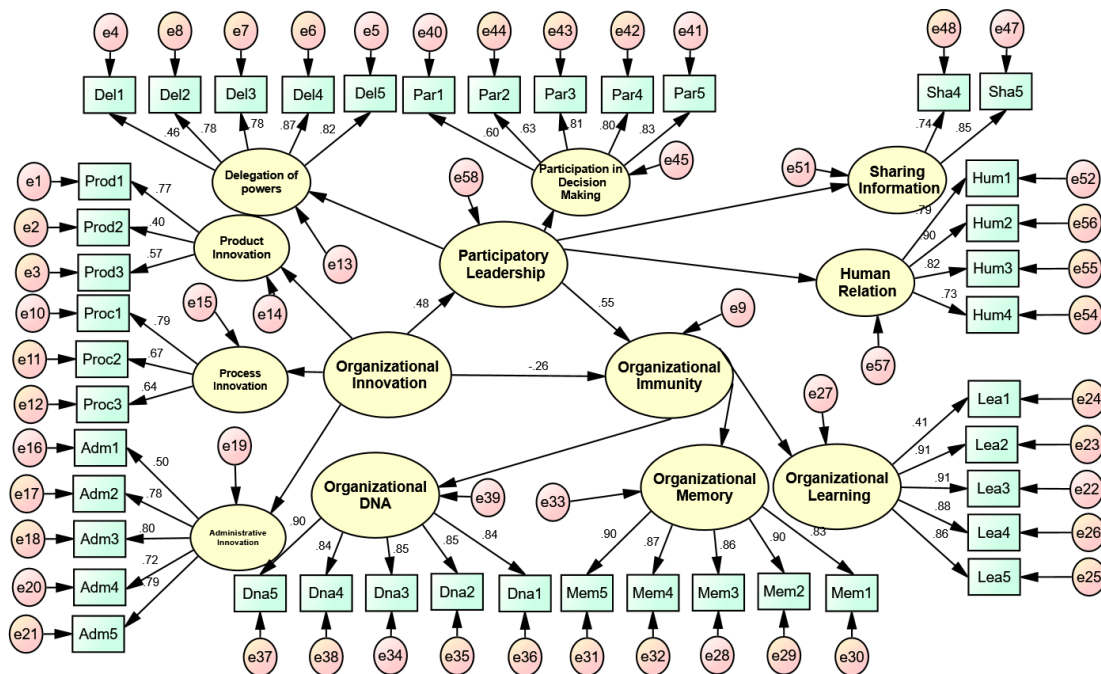


Figure (2). Structural model

Table (3). Path coefficients, S.E, C.R, and p-values

| Effect | Hypotheses | B | S.E | C.R. | P |
|--------|------------|---|-----|------|---|
|--------|------------|---|-----|------|---|

| | | | | | |
|-----------------|--|------|--------------|--------------|------|
| Direct Effect | Organizational Innovation → Participatory Leadership | .48 | .069 | 3.361 | *** |
| | Organizational Innovation → Organizational Immunity | -.26 | .041 | -1.841 | .061 |
| | Participatory leadership → Organizational Immunity | .55 | .141 | 2.859 | .004 |
| Indirect Effect | Organizational Innovation → Participatory Leadership → Organizational Immunity | .26 | Upper Bounds | Lower Bounds | .002 |
| | | | .493 | .120 | |

CONCLUSIONS

1. Organizational innovation is the main pillar for enhancing organizational immunity for any company that aspires to be a leader in its field.
2. Participatory Leadership is the main link for enhancing organizational immunity in all areas of the company.
3. Despite the different viewpoints on organizational innovation and participatory leadership, there is a great consensus on the importance of their role in achieving high levels of organizational immunity.
4. The sample confirmed its interest in organizational innovation, which gives it an applied dimension embodied in the possibility of employing it in the company and is a good tool for enhancing organizational immunity by investing in participatory leadership practices.
5. The statistical results showed the greatest value correlation between organizational innovation and organizational immunity. The relationship between participatory leadership and organizational immunity ranked second, followed by organizational innovation and participatory leadership, which ranked third.
6. The statistical results showed the presence of the largest value of the effect of participatory leadership on organizational immunity. The effect of organizational innovation on participatory leadership came second, while organizational innovation had an inverse effect on organizational immunity.
7. The intervening variable of participatory leadership's indirect effect with moral significance enhances the relationship between organizational innovation and organizational immunity.

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