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# The impact of governance on strengthening organizational immunity in greater Madaba municipality: A Case Study

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#### CHRONICLE

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#### ABSTRACT

This study aims to investigate the effect of governance in strengthening the organizational immunity in the Greater Madaba municipality. The study includes two variables, an independent variable, governance and four dimensions including organizational justice, accountability, sustainability, and transparency, and the dependent variable is organizational immunity. The researcher designed a questionnaire consisting of (30) items that included the independent variables, organizational justice, accountability, sustainability, and transparency, and the dependent variable, organizational immunity, and it was distributed to employees of the Greater Madaba municipality, where the researcher used the random sample method, as the size of the study population reached (210) employees. The study used a sample size of 136. The study found a set of results, including the level of both organizational immunity and governance in Greater Madaba municipality, was high, according to the viewpoint of the sample members, and the existence of a statistically significant impact at the level of significance ( $\alpha \le 5\%$ ) of governance with its combined dimensions, organizational justice, accountability, sustainability, and transparency, on the organizational immunity in the Greater Madaba municipality. Likewise, the absence of a statistically significant impact at the level of significance ( $\alpha \le 5\%$ ) for sustainability was one of the governance dimensions in organizational immunity in Greater Madaba, and there was no effect of transparency on regulatory immunity. The study recommends that the Municipality of Madaba focus on providing programs to develop employees and involve them in training courses in institutes, specialized centers, and universities and pay attention to sustainability and transparency.

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#### 1. Introduction

Organizations live like humans in a volatile, fast-moving, complex and many-changing environment, and these organizations must adapt to the current conditions and protect themselves from the dangers that they may be exposed to now or in the future, which calls for them, but rather they must carefully monitor the rapid and dynamic changes in the internal and external environments, and strengthening its internal environment by enhancing its strengths, working to bridge gaps and addressing its weaknesses to strengthen its structure, this is what is termed as organizational immunity, and it must take advantage of the functions and components of regulatory immunity, as organizational immunity is considered one of the primary and essential points in modern management, whether in terms of scientific theory or practice, organizational immunity is the method or methods through which the organizational defense process is carried out to protect the organization from the threats it may face, organizations work hard, regardless of their size or the nature of their work, to protect themselves from the various challenges they face, by relying on their valuable and unique resources that are characterized by scarcity and other competitive advantages, or by using the external environment and benefiting from the experiences of similar organizations, so that the organization's immunity is either natural or acquired.

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Governance is one of the prominent and important topics in many countries of the world and organizations in public and private sectors alike. The issue of governance and attention has appeared in many countries of the world, as well as organizations at the public sector level, including municipalities or in organizations at the private sector level, as a result of the spread of administrative and financial corruption, administrative slack and mismanagement, due to the lack of many of these countries and organizations of court oversight or skill. In addition to the lack of transparency, the organizations in the public and private sectors, especially municipalities, were keen to study governance, analyze it, and act on its principles (Hassan, 2017). Organizations have many ways, means, and methods that enhance organizational immunity, the most important of which is good governance, as it is tantamount to giving the human body vitamins C and D to strengthen immunity. The relationship between good governance and organizational immunity appears through the dimensions of governance, including the dimensions studied in this research (organizational justice, accountability, sustainability, and transparency), as the research results indicate the importance of the significant role and direct impact of the organizational governance dimensions in strengthening organizational immunity.

## 2. Significance of the Study

The importance of the study comes from the field of study, which is the Greater Madaba municipality because of the useful services it provides to the local community around the clock, and direct interaction with citizens and meeting their needs and desires, in addition to the scientific importance through the variables of the independent and dependent study, as the issue of governance is considered one of the essential topics in administrative sciences, which are emphasized in practical application in both the public and private sectors, especially in Jordan at a time when there was much talk about administrative and financial corruption, and it has become one of the basics in organizations, especially in municipalities, including the Greater Madaba municipality, commitment to implementing government standards and principles (organizational justice, accountability, participation, sustainability and transparency) as one of the successful solutions in the face of financial and administrative corruption and negative deviations while performing the tasks and duties assigned to it, in addition to organizational immunity, which is also one of the modern administrative sciences that organizations focus on in strengthening their internal environment in the face of the dangers they face through the external public and private environment, the importance of the study also appears by linking its variables, as this study is considered the few and may be the first according to the limits of the researcher's knowledge, which discussed the effect of governance on organizational immunity, in addition, the study will contribute to enriching the Arab library in terms of the theoretical framework as well as help the decision-maker in the Greater Madaba municipality to focus on issues of good governance and regulatory immunity on the organizational DNA and good governance.

# 3. Objectives of the study

The study aimed to identify the level of application of the dimensions of good governance in the Greater Madaba municipality, as well as the level of application of organizational immunity in the municipality of Greater Madaba, and the impact of the dimensions of good governance on the organizational immunity in the Greater Madaba municipality, and the presentation of some recommendations on the dimensions of the study concerning the higher management in the municipality of Madaba, as well as making recommendations regarding researchers to study other dimensions of governance and the dimensions of organizational immunity.

## 3.1 The Study Problem

In light of talking about corruption in administrative and financial aspects, and administrative slack in governmental organizations and institutions, including municipalities, in addition to the debts accumulated on the municipalities, including the municipality of Madaba, and the inability of the municipalities to establish projects to reduce unemployment and bring public benefit to the municipality and supplement its budget. Many researchers attributed this to the failure to apply standards of good governance, which contributes to strengthening the immunity of the municipality's body - which is called regulatory immunity - in the face of the dangers, distortions, and deviations that may face the municipality. Hence, the study problem emerges by answering the main question: What is good governance's effect in strengthening organizational immunity in Greater Madaba municipality? It is divided into the following sub-questions:

- What is the level of implementation of good governance in the Greater Madaba municipality?
- What is the level of application of regulatory immunity in the Greater Madaba municipality?
- Is there an impact of the excellent governance dimensions (organizational justice, accountability, sustainability, and transparency) in strengthening the organizational immunity in Greater Madaba municipality?

## 3.2 The Study Model

The study model consists of two variables: the independent variable of good governance. Wardhani et al. (2017 have benefited from the study, where they studied three dimensions: transparency, accountability and justice, and the Qabaja 2018 study, which added a fourth dimension for the previous study is sustainability, and the dependent variable is regulatory immunity.

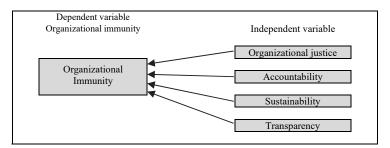


Fig. 1. The study model

Preparation of the researcher based on previous studies

## 3.3 Study hypotheses

The main hypothesis: There is no statistically significant impact at the significance level ( $\alpha \le 5\%$ ) of governance with its combined dimensions (organizational justice, accountability, sustainability, and transparency) on the organizational immunity in the Greater Madaba municipality.

The first sub-hypothesis: There is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for organizational justice from the governance dimensions in organizational immunity in the Greater Madaba municipality.

The second sub-hypothesis: There is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for accountability from the governance dimensions of organizational immunity in the Greater Madaba municipality.

The third sub-hypothesis: There is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for sustainability of the governance dimensions in the Greater Madaba municipality's organizational immunity.

The fourth sub-hypothesis: There is no statistically significant impact at the level of significance ( $\alpha \le 5\%$ ) for the transparency of the governance dimensions in the Greater Madaba municipality's organizational immunity.

#### 3.5 Theoretical framework

#### 3.5.1 Governance

The issue of governance for the international arena and the formulation of the principles of governance has emerged in the wake of economic crises that major global companies have experienced, such as Enron and WorldCom, to set strict standards to protect the rights of stakeholders, whether from within or outside organizations, Al-Khatib says that governance means the activity related to decision-making and granting powers or performance verification. It aims to ensure (and sometimes on behalf of others) that the organization follows a useful pattern to achieve good results and avoid other undesirable patterns (Al-Khatib, 2018). The Organization for Economic Cooperation and Development (OECD) defines governance as a set of principles and relationships between the organization's management and the board of directors and the owners of capital and stakeholders who have a relationship with the organization, it is the distinctive style of exercising authority, which provides incentives and seeks to achieve the objectives of the organization, monitor performance, ensure results and conform to the goals set, in addition to the optimal use of the resources and assets of the organization efficiently and virtually (Kawashi, 2017). The International Finance Corporation (IFC) defines governance as a system through which its management is controlled. In contrast others defined it as a building or framework of rules and regulations established by the Board of Directors in a manner that ensures the application of integrity and transparency in the organization's relations with stakeholders to make decisions about the organization's affairs (Ibrahim, Hatf, and Al-Baaj, 2017). From the previous, we can say that governance is a set of rules, principles, and foundations that regulate the relationship of management with stakeholders who have a relationship with the organization and the provisions of control to achieve the objectives of the organization through the optimal use of the organization's resources and ensuring the promotion of the principles of transparency, accountability, and justice.

## 3.5.2 Dimensions of Governance

The development of governance principles and its spread began with the end of the twentieth century, specifically in the nineties, when the European Foundation for Governance Regulations appeared. The world will be internationalized into two groups of leading countries in the field of formulating and disseminating the principles of good governance. Other countries that developed the principles of governance based on the principles of the pioneering countries, and then relied later on the

principles issued by the Organization for Economic Cooperation and Development (OECD) (setting a framework for governance within the organization, and the role of stakeholders, equitable treatment of shareholders, preservation of the rights of owners of capital and shareholders, and transparency). This organization has helped many countries of the world and organizations in formulating their principles of governance. However, each country has its principles of governance; these principles intersect with each other and share several principles, including accountability, transparency, independence, the role of the board of directors in monitoring workflow, the decision-making mechanism, and the adoption of specialized committees (Taqi al-Din, 2017). While the International Finance Organization (IFC) considered that governance is based on four principles in government institutions, namely: (integrity, accountability, responsibility, and transparency) (Hayek, 2016), the researcher has adopted four dimensions of governance based on previous studies, namely: organizational justice, accountability, sustainability, and transparency.

## 3.5.3 Organizational justice

Allah said: "Verily, Allah enjoins Al-Adl (i.e., justice and worshipping none but Allâh Alone - Islamic Monotheism) and Al-Ihsan [i.e., to be patient in performing your duties to Allah, totally for Allah's sake and following the Sunnah (legal ways) of the Prophet Mohammed - peace be upon him- in a perfect manner], and giving (help) to kith and kin (i.e., all that Allah has ordered you to provide them with, e.g., wealth, visiting, looking after them, or any other kind of help), and forbids Al-Fahsha' (i.e., all evil deeds, e.g., illegal sexual acts, disobedience of parents, polytheism, to tell lies, to give false witness, to kill a life without right), and Al-Munkar (i.e., all that is prohibited by Islâmic law: polytheism of every kind, disbelief and every kind of evil deeds), and Al-Baghy (i.e., all kinds of oppression). He admonishes you that you may take heed" (Holy Quran, Surat An-Nahl, Verse 90). And justice is what God imposed on people in His Book, the Noble Qur'an, and the words of His Messenger Muhammad. May God's prayers and peace be upon him and his family. He commanded them to be their behavior, which is the behavior of the believers, one of the types of justice is fairness in transactions in the sense that people are treated in sales and purchase contracts and all other trade-offs by fulfilling the obligations and rights that you owe, so do not underestimate people a right, do not deceive them or deceive them and oppress them. Justice is a duty, and charity is a desirable virtue (Al-Durar Al-Sunni, 2020). Allah said: "Verily! Allah commands that you should render back the trusts to those to whom they are due; and that when you judge between men, you judge with justice. Verily, how excellent is the teaching which He (Allah) gives you! Truly, Allah is Ever All-Hearer, All-Seer". (Holy Quran, Surat An-Nisa, Verse 58). Qabaja (2018) stated that justice is one of the central ethical standards based on which social practices, behavior, and institutions are evaluated. Workers who are treated well and somewhat will adopt more positive attitudes than other colleagues regarding their work, results, and supervisors. Justice is achieved for employees when they are rewarded equally in proportion to their inputs relative to their outputs (Qabaja, 2018).

#### 3.5.4 Accountability

The Messenger of God, Muhammad, peace be upon him and his family, said, "Do not you is a shepherd and each of you is responsible for his flock, the prince who shepherd people, and is responsible for his flock, and the man is responsible of his family, it is his responsibility, the woman is responsible on the house of her husband and his sons, and is responsible for them, and a servant is responsible on the master's wealth, are you not all responsible? and you are all responsible for your flock?" (Muslim, Hadith No. 1829) (The hadith is agreed upon). Accountability means accountability for the results that he achieved through responsibility and delegating authority. It starts from the organizational structure base where the lower management becomes accountable and accountable to the middle management, which in turn is accountable to the higher management (El-Dahan et al., 2018). Accountability also means the organization's readiness to provide reasons and justifications to the relevant stakeholders, including the founders, shareholders, the board of directors, and others, with its provisions, intentions, actions, and results, and the ability of other power holders (agents) to report a general report on their decisions and actions if the need arises (Qabaja, 2018). Accountability contributes to improving service delivery to citizens and employees alike, raising their efficiency, achieving equality in them, enhancing credibility, increasing transparency, and reducing corruption (Hassan, 2017).

# 3.5.5 Sustainability

Meeting all the needs of the current organization and its direct and indirect stakeholders without compromising their ability to meet the needs of future stakeholders as well (Qabaja, 2018), according to the definition of the World Commission on Environment and Development (Brundtland Commission) in 1987, sustainability means meeting the needs of the present without compromising the ability of future generations to meet their needs. Sustainability has three components: environmental sustainability, economic sustainability, social sustainability, and sustainability is a method of change, the work is in the exploitation of resources, directing investments, directing technological development and change in the strategies of institutions, in harmony to enhance the current and future capabilities to meet the needs and aspirations of people. If the organizations apply the principles of sustainability, it will help them reach excellence in all aspects, which leads to achieving the best value for their partners or shareholders and for the community and the environment in which they operate. The application of sustainability principles focuses on the foundations of sustainable thinking and ethical values, which help organizations design their products and services and determine how they deal with the relevant authorities, serve their customers, and interact with society (Amman Stock Exchange, 2018).

#### 3.5.6 Transparency

Transparency is one of the most important modern and developing concepts in governance, which the wise management must consider because of its importance on its facilities and the parties concerned with it (Al-Shabatat, 2018). Transparency is regarded as one of the essentials for the governance of organizations because of its significant role in tightening control over the management of the organization to prevent it from misusing its authority and urging it to protect the rights of shareholders and other stakeholders, improve its competitiveness performance and its accounting practices and provide transparency in financial reports, which avoids fraud and manipulation (Fromm, 2016). Some define it as complete openness and access to reliable information of interest to the involved parties, and this in itself means the free flow of sufficient, reliable, and understandable information in a timely fashion, which means that all actors are ready to participate and act in an open manner (Qabaja, 2018). The researcher believes that transparency is only one of the principles on which governance is based by providing accurate, clear, understandable, and high-quality information that helps administrations make rational decisions and not fall into manipulation, fraud, and administrative and financial corruption. The ability to prepare, review, and be held accountable to the parties and relevant authorities improves the municipality's performance in serving its services to citizens.

#### 2.5.7 Organizational Immunity

It is a term used in medical sciences and refers to the human body's ability to resist viruses, germs, dangers, and diseases that a person is exposed to from time to time. The immunity of bodies differs from one person to another. Since management has a relationship with other sciences and benefits from them, management scientists use this medical term in organizations because the organization is similar to a living being and has been defined as a social entity. The main purpose of organizational immunity is to form a defense apparatus for the organization to confront the risks that may threaten the organization and its survival or affect the organization's work. These risks may either be internally resulting from the organization's internal environment or its external environment, and it must be met with a systematic defense that includes means of persuasion or deterrence. It must be confronted and multiple defenses against any threat to the organization from within called resistance (Stroeymeyt, Casillas & Cremer, 2014; Al Khateeb, 2018). Regulatory immunity is defined as complex and delicate groups of tasks related to each other and individuals that protect the organization from environmental changes and the dangers resulting from building an impenetrable dam, which is represented by the personnel of the organization, policies, procedures, processes, and culture that all interact to prevent change and external threats (Gilley et al., 2009). Organizational immunity is a product of development that reflects the organization's ability to adapt to challenges, including the increasing complexity of organizations and the external threats they face (Simmons, 2013). The organization works to update and develop internal methods and implement them to ward off external threats and work to address weaknesses within the organization. Therefore, organizational immunity can be described as a system of organizational processes carried out by all components and functions of the organization that require a change in the organization's choices and outputs so that it works continuously to amend, correct, and develop it in line with the environmental changes and developments regularly to face the turbulent environment (Abboudi, 2019). Organizational immunity is also known as a system. This system is a component of sub-parts that integrate to enable the organization to protect itself from its dangers and address the attempts to cause any defect from within or outside destabilizes the organization. Scientists have differed in these parts and dimensions, and there are agreed-upon dimensions such as natural immunity and acquired immunity (Aboudi, 2019). Abu Zuaiter (2019) referred to these dimensions among researchers: Ismail (2017) mentioned organizational memory, quality of information and availability of data, while (Abdul Majeed) considered the dimensions of organizational memory, organizational learning and DNA, the regulatory immune system is characterized by a set of characteristics, the most important of which are: study and knowledge, in which the functions of immune perception and immune memory merge, and the element of diversity and spread, as immunity applies in all parts of the organization and its main components, whether consciously or without awareness, as well as the independence and systemic characteristic in the sense that the immune system works in defense in the form of small groups, and each group alone has the capabilities and ability to deal with many things so that each unit of the organization is considered a primary line of defense, detects threats early and works to eliminate them, as for regularity, it means that the results of each small unit are not limited to it, but rather it goes beyond that to all other units and divisions of the organization, and finally the fourth characteristic, which is response and self-regulation, when risks and threats or any new and new matters emerge, a method is generated for a treatment or a working group to address or set a process to correct Al-Amur (Al-Saadi, 2016).

#### 4. Previous studies

Hamza and Omar (2020) study aimed to know the role and importance of governance in the formation of a fixed head in the Arab world, and the study reached a set of objectives, the most important of which were:

- There is a strong positive correlation between strengthening the government sector's governance infrastructure and establishing fixed capital, reaching 89.1. The results showed the influential role of governance indicators in the formation of fixed capital, especially in the medium and long term.

Abu Zuaiter (2019) aimed to identify the effect of the organizational immune system in its dimensions (functions and components) on the strategic balance in private Jordanian hospitals and reveal the reality of the relationships between the organizational immune system and its dimensions and the strategic balance. The study found a set of results, the most important of which are: The presence of a statistically significant effect at the level of significance ( $\alpha \le 5\%$ ) for the organizational immune system with its combined dimensions (functions and components) on the strategic balance in the private Jordanian hospitals. There is a statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for the organizational immune system with its

dimensions (functions and components) on the strategic balance in private Jordanian hospitals. Al-Khatib's study (2018) aimed at knowing the degree of application of governance standards in Jordanian universities and the study reached a set of results, the most important of which were: There are no statistically significant differences in the application of governance standards due to variables of gender, specialization, and years of experience, while the study demonstrated the existence of statistically significant differences in the application of governance standards due to the variable of academic location. Qabaja (2018) aimed to identify the effect of organizational DNA on the good governance of the Water Authority in Jordan; the study found a set of results, the most important of which were: The presence of a great commitment by the Jordanian Water Authority to the principles of good governance with an average value of (3.82) with a high level of importance. The Jordanian Water Authority is committed to implementing sustainability as a pillar of the good governance dimensions more than any other dimension. It scored the highest average among the governance dimensions with an average value of (3.97) and based on the opinions of the Water Authority staff; the WAJ does not always commit to improving the services provided to decision-makers. The results of the study also showed a statistically significant effect of the organizational DNA dimensions (organizational structure, information, decision rights, and incentives) on good governance, as well as the absence of statistically significant differences of the effect of organizational DNA on governance attributable to the intermediate variable (gender, educational level, and practical experiences).

Sar (2018) aimed to identify the impact of corporate governance on sustainability in its three dimensions (economic disease, environmental performance, and social justice performance); the study found that there is a strong positive direct correlation between corporate governance and sustainability performance in its three dimensions (economic disease, environmental performance, and social justice performance). Wardhan et al. (2017) aimed to find out the correlation between good governance, public spending, and government performance, as well as the impact of governance and government spending on the performance of local government in Indonesia, and also if good governance can enhance the effectiveness of government spending on government performance during the period (2009-2012). The study found a set of results, the most important of which are: the existence of a negative impact of government spending on performance and a strong relationship between good governance and effective government performance. A strong and good public administration positively affects performance and reduces government spending inefficiency. Khudair (2017) aimed to identify the role of individuals working in the Najaf Cement Factory in enabling the regulatory immune systems and how the organization can contribute to pushing workers to reach the stage of full employment. The study found a set of results, the most important of which are: the existence of an effect of the dimensions of functional overburdening in its dimensions (cognitive/cognitive, emotional and physical absorption) on the regulatory immune systems with their dimensions (learning, organizational memory, and DNA), besides, the results show the employees 'interest not only in their work, but in the organization, the sustainability of its work, and the improvement of results at the organization's level. The study of (Liu, Duan, Yang, Wang, Shi, 2016) aimed to identify how to enhance immunity to organizational quality, quality performance and regulatory health, the impact of employee perception and behavior on the immunity of organizational quality, and organizational health. The study found the following results: The existence of a correlation between the variables in the whole study related to the organizational health of the organization, as well as having a direct effect on the employees 'organizational self-esteem, and the perception of employees' internal identity on the organizational quality dimensions (monitoring, perception, and immune defense) that are specific to immune and regulatory health.

## 5. Study Methodology

The descriptive and analytical approach was adopted, as the researcher designed a questionnaire to collect data consisting of five items, one item for the dependent variable and (4) items for the independent variable, and the number of questions reached (30) questions. The data were analyzed through the use of SPSS software, the arithmetic averages and the standard deviation were used to describe the characteristics of the study sample and the simple regression to test the hypotheses of the study in addition to the Cronbach Alpha test to indicate the values of the internal consistency coefficient of the items of regulatory immunity and governance.

## 5.1 The population of the Study and its Sample

The study population consisted of all administrative employees and local and municipal councils in the municipality of Madaba Governorate, where the number of the study population was (210). A simple random sample was used for data collection, where (140) questionnaires were distributed according to tables (Sekaran & Bougie, 2016), (125) questionnaires were retrieved, and (5) questionnaires not suitable for analysis were excluded, so the percentage valid for analysis is (88.23), which is an acceptable percentage for scientific research. Table 1 shows that:

Table 1 Sample size

O 44 111	DIC SIZE							
N	Municipality	Population	Sample	Number of dis- tributed question- naires	Number of recovered question- naires	Number of inva- lid questionnaires	Number of valid questionnaires for analysis	percentage
	Greater Madaba Municipality	210	136	140	125	5	120	88.23%

## 5.2 Reliability test of the study tool

The Cronbach Alpha test was used, and the following Table shows the results, which are acceptable results according to (Sekaran & Bougie, 2016), as the percentages for all paragraphs were more significant than (90%).

 Table 2

 Reliability coefficients according to the Cronbach alpha coefficient of the study tool and its dimensions

Variable	Cronbach Alpha
Organizational immunity	0.967
Governance	0.969
Organizational justice	0.929
Accountability	0.944
Sustainability	0.927
Transparency	0.918
Overall scale	0.970

To ensure that the sample is free from the multiple correlation problem, the Variance Inflation Factor (VIF) was calculated, and the results were as follows:

 Table 3

 Results of multiple correlation test between independent variables

Tolerance	VIP	The dimension
0.395	2.53	Fairness
0.507	1.97	Accountability
0.282	3.54	Sustainability
0.400	2.50	Transparency

Table 3 indicates that the values of the VIF were all greater than the number (1) and less than the value (10) and ranged between (1.97 - 3.54), and the Tolerance value was higher than (0.1), and it ran between (0.281 - 0.504), and this indicates that there is no multiple linear correlation problem between all the variables of the independent study (Abu Zaid, 2018). The response on the tool was designed according to the five-point gradient, according to Likert's five-point model, as follows:

Strongly agree	agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

For the purposes of the study, the researcher has adopted the following equation to know the relative importance and level of the study variables:

The upper limit of alternatives to answering the questionnaire is (5), and the lower limit of other options (1) by subtracting the lower limit from the upper bound is equal to (4), and then dividing the difference between the two limitations on three levels as shown in the following equation:  $4 \div 3$  levels (high, medium, Low) = 1.33, so the paragraph weights become as follows:

- A. Low level, it's mean between (1.00 2.33).
- B. Moderate level, it's mean between (234 -3.67).
- C. High level, it's mean between (3.68-5.00).

**Table 4**The arithmetic means of the study variables

The distinitions include Study variables								
Variable	Mean	Standard deviation	Relative importance					
Organizational immunity	3.755	0.845	High					
Governance	3.689	0.942	High					
Organizational justice	3.625	1.040	Moderate					
Accountability	3.758	0.925	High					
Sustainability	3.718	0.966	High					
Transparency	3.654	1.006	Moderate					

## 5.3 Description of the dependent variable: Organizational immunity

Table 4 indicates that the organizational immunity achieved an arithmetic mean of (3.755) with a ratio of (0.751) of the total scale area and a standard deviation (0.845); this indicates that the level of organizational immunity in the Greater Madaba municipality is high, according to the viewpoint of the sample members. According to the data of Table (4), item (6) occupied the highest arithmetic mean among the items of the dependent variable regulatory immunity after the arithmetic mean reached (4.02) and the standard deviation (0.879). In contrast, item (7) came in the last place, as it reached the arithmetic mean (3.51) and the standard deviation (1.166).

## 5.4 Description of the categories of the independent variable of governance

Table 4 indicates that governance has achieved an arithmetic mean of (3,689) and (0.737) of the total scale area, and a standard deviation (0.943), which indicates that the level of governance in Greater Madaba municipality is high, according to the viewpoint of the sample members.

## 5.4.1 Organizational justice

Table 4 indicates that the governance dimension organizational justice has achieved arithmetic mean of (3.625) and a percentage (0.725) of the total scale area, and a standard deviation (1.041), which indicates that the level of organizational justice in the Greater Madaba municipality is moderate according to the point of view Sample members. According to the data of Table 5, item (4) occupied the highest arithmetic mean among the items of organizational culture, as the arithmetic mean reached (4.44) and the standard deviation (0.773), while item (1) came last, with the mean (3.68) and the standard deviation (1.01).

Table 5
The arithmetic means, standard deviations, and the relative importance of the respondents' assessment of the level of the study items

Variable	Item N.	Item	Mean	Standard deviation	Rank	Relative importance
Organizational immunity	6	The internal control body (Financial Audit Department) in the municipality has the legitimacy of transactions and detects errors.	4.02	0.879	1	High
Organizational immunity	7	The municipality links incentives with performance.	3.51	1.166	13	Moderate
Organizational justice	17	The municipality administration responds to all requests and complaints constantly.	3.80	1.000	1	High
Organizational justice	14	The higher management in the municipality applies fair systems and regulations in evaluating and promoting employees	3.50	1.202	4	Moderate
Accountability	20	Accountability leads to discipline of municipal workers	3.88	0.954	1	High
Accountability	19	The municipality administration follows up the notes contained in the daily reports	3.68	1.053	4	High
Sustainability	25	The municipality emphasizes the moral message in the community.	3.83	1.006	1	High
Sustainability	24	The municipality is committed to improving the services provided to employees.	3.57	1.097	4	Moderate
Transparency	29	The municipality is committed to publishing and disclosing the terms of its annual budget specific timing and organization method.	3.79	1.019	1	High
Transparency	28	The senior management in the municipality clarifies the regulations and rules.	3.59	1.126	4	High

## 5.4.2 Accountability

Table 4 indicates that governance dimension accountability has achieved an arithmetic mean of (3.758) and a percentage (0.756) of the total scale area, and a standard deviation (0.925), which indicates that the level of accountability in the Greater Madaba municipality is high, according to the viewpoint of the sample members. According to the data of Table (5), item (2) occupied the highest arithmetic mean among the human resources items, as the arithmetic mean reached (4.25) and the standard deviation (0.792). In contrast, item (3) came in the last place, with the arithmetic mean (4.04).

# 5.4.3 Sustainability

Table 4 indicates that governance dimension sustainability has achieved an arithmetic mean of (3.718) and a percentage (0.743) of the total scale area, and a standard deviation (0.967), which indicates that the level of sustainability in Greater Madaba municipality is high, according to the viewpoint of the sample. According to the data of Table (5), item (3) occupied the highest arithmetic mean among the customers' items, as the arithmetic mean reached (4.32) and the standard deviation (0.653), while item (2) came in the last place with the arithmetic mean (3.94) and the standard deviation (0.866).

## 5.4.4 Transparency

Table 4 indicates that the governance dimension, transparency, has achieved an arithmetic mean of (3,654) and a percentage (0.731) of the total scale area, and a standard deviation (1.006), which indicates that the level of transparency in Greater Madaba municipality is average according to the viewpoint of the sample members. According to the data of Table (5), item (1) occupied the highest arithmetic mean among the competitors' items, as the arithmetic mean reached (4.44) and the standard deviation (0.601), while item (4) came in the last place with the arithmetic mean (4.14) and the standard deviation (0.839).

## 5.5 Test the hypothesis of the main study and its subsidiaries

The main hypothesis: There is no statistically significant impact at the significance level ( $\alpha \le 5\%$ ) of governance with its combined dimensions (organizational justice, accountability, sustainability, and transparency) on the organizational immunity in the Greater Madaba municipality. Multiple regression was used to test this hypothesis, and the results are as shown in the following Table:

**Table 6**Results of a multiple regression analysis of the effect of governance on organizational immunity

Dependent	Model St	ummary	ANOVA		Coefficients					
Variable	R	$\mathbb{R}^2$	F	Sig F	Statement	Beta	В	S. E	T	Sig T
Org Immune	0.904	0.818	129.231	0.000	constant	-	0.813	0.141	5.77	0.000
					Fairness	0.569	0.462	0.069	6.728	0.000
					Accountability	0.373	0.341	0.118	2.882	0.005
					Sustainability	0.047	0.041	0.122	0.337	0.737
					Transparency	-0.054	-0.046	0.091	-0.503	0.616

According to the data of Table 6, the results of the multiple regression indicate that the dimensions of the independent variable of governance (fairness to organizational, accountability, sustainability, and transparency) explains (82%) of the variance in regulatory immunity, where the value of the coefficient of determination (= 0.818 R<sup>2</sup>). To test the effect of multiple regression, the value of (F = 129.231) was relied upon, which is a statistically significant function, as the level of significance of the (F) test is (0.000), this indicates the importance of the model, and based on these results and the importance of the model, where the significance level is less than (5%), then the null hypothesis is rejected, and the alternative hypothesis is accepted (there is a statistically significant effect at the level of significance ( $\alpha \ge 5\%$ ) for governance with its combined dimensions (organizational justice, accountability, sustainability, and transparency) in the regulatory immunity in the Greater Madaba municipality.

- 5.5.1 The first sub-hypothesis: There is no statistically significant effect at the level of significance ( $\alpha \le 5\%$ ) of organizational justice from organizational immunity's governance dimensions in the Greater Madaba municipality. According to the data of Table 6, the value of (Beta = 0.569), which reflects the effect of the independent variable, organizational justice in terms of units of standard deviation, meaning that the change in the (justice) dimension of the governance dimensions with one standard deviation will increase the regulatory immunity by (0.569), it is a statistically significant value, as the value of (T = 6.728) and the value of the significance level of (T) test is (0.000), and this indicates the significance of the model, based on these results and the significance of the model where the significance level is less than (5%), the null hypothesis is rejected. The alternative hypothesis accepted (there is a statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for governance dimension organizational justice in organizational immunity).
- 5.5.2 The second sub-hypothesis: There is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for accountability from the governance dimensions of organizational immunity in the Greater Madaba municipality. According to the data of Table 6, the value of (Beta = 0.373) reflects the effect of the independent variable of accountability in terms of units of standard deviation, meaning that the change in (accountability) from the dimensions of governance with one standard deviation will increase the organizational immunity by (0.373), it is a statistically significant value, as the value of (T = 2.882) and the value of the significance level of (T) test is (0.005), and this indicates the significance of the model, based on these results and the significance of the model, where the significance level is less than or equal to (5%), the null hypothesis is rejected. The alternative hypothesis is accepted (there is a statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for governance after accountability in organizational immunity.
- 5.5.3 The third sub-hypothesis: There is no statistically significant impact at the level of significance ( $\alpha \le 5\%$ ) for the sustainability of the governance dimensions in organizational immunity in the Greater Madaba municipality. According to the data of Table 6, the value of (Beta = 0.047) reflects the effect of the independent variable in terms of the standard deviation units, meaning that the change in (sustainability) from the governance dimensions with one standard deviation will increase the organizational immunity by (0.047), it is a statistically non-significant value, as the value of (T = 0.337) and the value of the significance level of the (T) test is (0.737), and this indicates the lack of significance of the model, based on these results and the lack of significance of the model, where the significance level is more significant than (5%), then the null hypothesis is accepted (there is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for governance dimension sustainability in organizational immunity).
- 5.5.4 The fourth sub-hypothesis: There is no statistically significant impact at the level of significance ( $\alpha \le 5\%$ ) for the transparency of the governance dimensions in the Greater Madaba municipality's organizational immunity. According to the data of Table No. (6), the value of (Beta = -0.054 -) as the effect of the independent variable reflects transparency in terms of units of standard deviation. That is, the change in (transparency) of the governance dimensions, with one standard deviation, the organizational immunity will increase by (-0.054 -), it is a non-statistically significant value, as the value of (T = -0.503 -) and the value of the significance level of (T) test is (0.616), and this indicates the lack of significance of the model, based on these results and the lack of significance of the model, where the level of significance is greater than (5%). The null hypothesis is accepted (there is no statistically significant effect at the significance level ( $\alpha \le 5\%$ ) for governance dimension transparency

in regulatory immunity). Stepwise Multiple Regression analysis was applied to determine which dimension of governance had the most noticeable impact on regulatory immunity, and the results were as follows:

**Table 7**Model summary and analysis of variance to test the main hypothesis

ANOVA	1		Mod	el Summary	7	
Sig*	F	S. E	df	$\mathbb{R}^2$	R	Model
0.000	422.845	.535	1	0.782	0.884	Fair
0.000	262.172	0.70	2	0.818	0.904	Fair + Accountability

When reviewing Table 7, we find that the first model resulting from the graded regression analysis indicates that the (organizational justice) variable explained (78.2%) of the total variance in (organizational immunity), the percentage of interpretation of the total variance in (organizational immunity) reached (82%) when adding (accountability) to (organizational justice) in the second model. Note that the different (F) levels in the two models are within the significance level less than (0.05), which confirms the regression's significance.

 Table 8

 The summary of the results of the regression analysis

Sig*	t	В	Governance	Model
0.000	20.554	0.718	Fairness	First
0.000	7.514	0.464	Fairness	Second
0.000	4.798	0.334	Accountability	

Reviewing the results of Table 8, we find that the values of B in the two models at different "t" levels are at the level of significance (Sig = 0.000). The two variables within the gradient regression models, which came less than (0.05), confirm the regression coefficients' significance, indicating that the effect of the two models' variables is statistically significant. It was also found that the impact of (sustainability) and (transparency) was not significant.

#### 6. Results

The researcher has reached, through the field study he conducted in the Greater Madaba municipality in Madaba governorate, and according to the statistical analysis of the answers of the surveyed sample, to a set of results as follows:

- 1. Organizational immunity achieved an arithmetic mean of (3.755) and a ratio of (3.755 / 5) and equal to (0.751) of the total scale area, which indicates that the level of organizational immunity in Greater Madaba municipality is high, according to the viewpoint of the sample members.
- 2. Governance has achieved an arithmetic mean of (3,689) and (0.737) of the total scale area, and a standard deviation (0.943), which indicates that the level of governance in Greater Madaba municipality is high, according to the viewpoint of the sample members.
- 3. The governance dimension organizational justice has achieved an arithmetic mean of (3,625) and a percentage (0.725) of the total scale area, indicating that the level of organizational justice in Greater Madaba municipality is average to the viewpoint of the sample members.
- 4. The governance dimension accountability achieved an arithmetic mean of (3.758) and a percentage (0.756) of the total scale area, and a standard deviation (0.925), which indicates that the level of accountability in Greater Madaba municipality is high, according to the viewpoint of the sample members.
- 5. The governance dimension sustainability has achieved an arithmetic mean of (3.718) and a percentage (0.743) of the total scale area, and a standard deviation (0.967), which indicates that the level of sustainability in Greater Madaba municipality is high according to the viewpoint of the sample members.
- 6. The governance dimension transparency has achieved an arithmetic mean of (3,654) and (0.731) of the total scale area, and a standard deviation (1.006), which indicates that the level of transparency in Greater Madaba is average, according to the viewpoint of the sample members.
- A statistically significant impact existed at the level of significance (α ≤ 5%) of governance with its combined dimensions (organizational justice, accountability, sustainability, and transparency) on the organizational immunity in Greater Madaba municipality.
- 8. A statistically significant effect existed at the significance level ( $\alpha \le 5\%$ ) of organizational justice from the dimensions of governance in organizational immunity in Greater Madaba municipality.
- 9. A statistically significant effect existed at the level of significance ( $\alpha \le 5\%$ ) for accountability from the governance dimensions in the organizational immunity in Greater Madaba municipality.
- 10. A statistically significant impact existed at the significance level (α ≤ 5%) for sustainability from one of the governance dimensions in organizational immunity in Greater Madaba municipality.
- 11. A statistically significant effect existed at the significance level (α ≤ 5%) for transparency of the governance dimensions in organizational immunity in Greater Madaba municipality.

#### 7. Conclusions

- 1. The level of organizational immunity in the surveyed Greater municipality of Madaba is high, according to the viewpoint of the sample members; this means a high level of importance, meaning that the Greater Madaba municipality pays great attention to the organizational immunity in terms of the functions of the immune system (such as the immune regulatory memory, the immune control function, etc.). In addition to the components of the central and specialized immune system.
- 2. According to the sample members' viewpoint, the level of the dimensions of good governance separately (organizational justice, accountability, sustainability, and transparency) in the surveyed municipality of Greater Madaba is high. That is, there is a high level of importance, which indicates that the Greater Madaba municipality is concerned with justice, whether between workers or dealing with citizens, as well as in the administrative and legal accountability process in its handling of cases of deviation or corruption in addition to transparency in its dealings with employees and citizens.
- 3. The results indicate that the Greater Madaba municipality pays more attention to the accountability dimension than other dimensions of good governance, which means that there is a high commitment to the application of laws, regulations, and instructions and not to allow these laws, regulations, and instructions to be violated, which enhances the carrying out of tasks and duties and their fulfillment with high quality and within the applicable standards.
- 4. The results indicate a direct, statistically significant effect at the level of significance (0.05 ≥ a) of good governance in all its combined dimensions (organizational justice, accountability, sustainability, and transparency) on organizational immunity. As well as a direct effect of individual governance dimensions (organizational justice, accountability) on organizational immunity; this means that there is a commitment from the Greater Madaba municipality in the issue of good governance, as (57%) of the variation in organizational immunity is due to good governance, which supports the link between organizational immunity and good governance as mentioned in the study model.
- 5. The results indicate that there is no effect of the individual dimensions of governance (sustainability and transparency) on regulatory immunity, and this indicates that there is a low interest by the municipality in the two issues of transparency (such as the lack of clarification of the strategy to the workers as well as the regulations, legislation and the lack of information dissemination), and sustainability (in terms of the municipality's lack of interest in employee development in terms of providing programs and improving services to employees).
- 6. It is evident from the results and through the (Beta) values that the organizational justice dimension is the most influential among the other dimensions of governance, as it was a value where the value of (Beta) corresponding to it is the largest and it is statistically significant, followed by the questioning dimension because the value of (Beta) corresponding to the dimension of accountability is the following, and it is a statistically significant sign, while there was no impact of the other dimensions, sustainability, and transparency.

## 8. Recommendations

The study recommends the following:

- 1. That the upper, middle and lower administrations in the municipality of Madaba adhere to governance issues to enhance the municipality's organizational immunity, As the implementation of the dimensions of governance in the municipality has the most significant impact on the organizational immunity of the municipality, such as immune stability, the municipality's immune memory, control, and others, which are of great benefit to the performance of functions and tasks.
- 2. To focus on providing employee development programs and engaging them in training courses in institutes, specialized centers, and universities.
- 3. Attention to sustainability and transparency, as it was noted that the determination coefficient explains (13.6%) of the variation in organizational immunity.
- 4. To offer rewards to talented people to distinguish employees from each other and encourage them to accomplish and advance work.
- 5. Pay attention to information and make it available to all workers and citizens at all appropriate times and not restricted to certain persons in the municipality.
- Conducting other studies dealing with the dimensions of governance on organizational immunity dimensions by developing the study model and obtaining different results and perspectives to reinforce the basic principles on which this study is based.

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