

The Role of Public Policy Management in Enhancing Sustainable Development: An Applied Study on The Iraqi Ministry of Health

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ABSTRACT: Public policy management was the subject of this paper in as much as dealing with its effectiveness in the realization of sustainable development within the Iraqi Ministry of Health. Using a survey research approach, a standardized questionnaire was distributed to 222 Ministry employees in Baghdad over a period of January 2023 to November 2024 and it covered the policy formulation, policy implementation as well as policy evaluation. Both the descriptive and inferential statistics measures were used on the data collected and correlation and regression analysis using SPSS27 was done. Public policy management best practices were found to have a positive significant relationship ($R = .859, p < .001$) with sustainable development attainments. The respondents held perceptions of strength with regards to resource management and engaging key stakeholders; however, saw a weakness in capacity development. The study concludes by calling for capacity building interventions that target sustainable development and building on Cambodia's existing competences on resource mobilisation and stakeholder management, integrating effective monitoring and evaluation systems, increasing accountability, and partnerships. These strategies can augment the capability of the Ministry to attain sustainable development objectives for the overall superior, sound, and sustainable direction of Iraq.

KEYWORDS: Sustainable Development, Public Policy Management, Iraqi Ministry of Health

INTRODUCTION

Sustainability is a complex notion which includes three of the most important pillars: environmental, social and economic. Often development goals are interrelated, therefore achieving sustainable development involves eradicating poverty, reducing inequality, protecting the environment and combating climate change. The management of public policy has critical involvement in defining the direction in development and its continuous improvement. Policy formulation and implementation require that the needed conditions should be established to support economic development, social justice, and the environment should be put in place. Thus, the subject of this research is oriented on the identification of the public policy management and its contribution to the sustainable development with the consideration of the Iraqi Ministry of Health as the research object. Through the description of the policy processes, resource management, and stakeholders' interaction within the Ministry, this research will seek to discover and understand the enablers or barriers to sustainable health sector development. There is a large number of works that emphasized the role of public policy in implementing the concepts of sustainable development. The literature has paid much attention to the interconnected policy coherence in terms of the relationship between

economic, social, and environmental policies (Nica, 2015). There have also been investigations into the participation of the public in developing sustainable development programmers and policies as well as the guarantee of the efficiency of these policies (Li et al., 2018; Hao et al., 2022). Also, the literature stresses the need for supervision and assessment frameworks for completions of the sustainable development and early policy adjustments where necessary (Sarker et al., 2017). In light with previous studies, this paper fills the identified gap by being more specific and examining different SD policies' implementation context of the developing country – the Iraqi.

SIGNIFICANCE AND OBJECTIVES

The study has the following implications for the development of sustainable health care system in Iraq. Thus, by analyzing the position of public policy management in this regard, the research supports the identified concept by shedding light on the significant factors affecting the efficacy of sustainable development. The participants' knowledge and perceptions can be applied to changes in policy, alterations within MoH, thus advancing health and a more sustainable environment. more generally this work advances the field of public policy for sustainable development, and the findings would be useful for other

developing countries which is currently grappling with these issues. The specific objectives of this study are:

Research problem:

This paper identifies some of the problems of Iraqi healthcare system such as; poor resources, infrastructure, and the political and social structure. The Iraqi Ministry of Health provides a written pledge with regards to the principles of sustainable development, but it has not embraced these principles when it comes to political implementation. The previous literature reveals a disparity between the announced policies and their practical application within the Iraqi public sector that heightens doubts on the Ministry’s ability to hit desired sustainable development targets. There's also limited understanding of the specific obstacles hindering the integration of sustainability considerations into health policy and decision-making processes. This gap in knowledge underscores the need for a comprehensive investigation into the role of public policy management in driving sustainable development within the Iraqi Ministry of Health. Therefore, the central research problem this study addresses is:

How can public policy management practices within the Iraqi Ministry of Health be enhanced to effectively promote sustainable development within the healthcare sector?

Hypothesis:

Based on the research problem, this study posits the following testable hypothesis:

H1: There is a statistically significant positive relationship between the effective implementation of public policy management practices and the achievement of sustainable development outcomes within the Iraqi Ministry of Health.

LITERATURE REVIEW

Sustainable development is therefore the enhancement of the quality of life through conservation and improvement of the quality of assets; the improvement of standard living through sustainable economic growth; social progress to achieve a just society and; protection of the natural environment. In light of the above, Nica (2015) opines that public administration is an important tool through which sustainable development goals are implemented in specific terms. There is, therefore, a need to ensure efficient management of public policies for the development of right conditions for the practice of sustainable practices in many fields such as health, energy and infrastructure among others. Heinrichs and Laws (2021) also stress the notion of ‘sustainable public administration’ meaning that sustainability needs to be considered in every area concerned with and practiced within government and public agencies. Through such policy linkages, sustainable development problems are best solved because most of the

challenges are interrelated. These frameworks are meant to ensure that bodies of sectoral policy are unbundled systematically, and that policy co-ordination occurs across bodies of government (Meadowcroft, 2007). Nazar et al. (2022) pointed out that inter-sectoral cooperation which focuses on the cooperation between public health sector and trade sector is crucial for achieving sustainable development goals. In the same way, Castro & Lopes (2022) analyzed a) the ways in which digital government improves sustainable development as a technical descriptor b) whereas polices stated a role in facilitating the implementation of sustainable development, digital technologies could improve integrate policy making processes and better information sharing.

Another important factor under sustainable development policy is the engagement of the stakeholders. Li et al. (2018) did a study which showed that when the public is involved in sustainability development activities, it can boost the effectiveness of sustainability development planning since policies developed by the government address the needs of the populace. In their study which were centered on air pollution approach in China, their research showed that establishment of community participation in polices was acceptable and would be owned by people. In the same vein, Hao et al., (2022) discussed on public participation in the sustainable development in Kenya where they stressed on the need for sound governance structures that envision participation of the public in decision making. However, stakeholder engagement has to be well-planned and managed to avoid mere ‘window- dressing and to make sure and ensure that a myriad of stakeholders’ voices is actually heard (Reed, 2008).

Institutional capacity is a critical enabler of sustainable development policies and achieving the designed outcomes. This capacity involves policy knowledge and other competencies, assets and systemic arrangements vital for policy execution (Arora & Mishra, 2019). Sarker et al., (2017) explored the problems or Bangladesh in achieving the sustainable development goal and found out that institutional improvement for public sector’s capacity is central to meeting the goals. Likewise, in Salvador and Sancho’s work (2021), the authors focused on attempting to understand the contribution made by local governments in the execution of sustainable development agenda with the claim that, to that extent, the degree of institutional capacity is an important determinant. What set their research apart was the focused proposition that any change or transformation must entail adequate support and provision of resource, training and most importantly technical-professional service to Local Government Institutions to effectively spearhead policy on sustainable development. Evaluation is thus critical in the identification of progress towards the achievement of sustainable development goals,

and adjustments of policy based on implementation results. This entails defining of markers, identifying sources of quality data, and evaluating the impact of various approaches (OECD, 2019). In their work Noja et al. (2019) also analyzed that sustainable development needs good governance with a strong emphasis on performance enhancing and accountability structures. Similarly, Raimi et al., (2020) on their part examined the effectiveness of health impact assessments in advancing sustainable development in Nigeria, in showing how health has to be given consideration in policy appraisals.

Challenges that come along with sustainable development polices may include; Due to the fact that many developing countries may lack adequate financial might, inadequate institutional capacity, and political instabilities as stated in the UN DESA- 2021. Ye et al. (2021) also discussed on the issues taken in the context of urban renewal in China with the primary conflict of growth and sustainability. In the paper they also noted that while undertaking urban renewal projects caused an increase in economic activities, they agreed that they also led to environmental pollution and people being forcefully evicted from their homes. In the same way, Sulich and Zema assert that the measure of public management and workable respective for “green jobs” in relation to sustainable development, it is premised in the transformation of green economy, they supported by polices that would contribute to the growth of jobs in the green economy.

Spatial and temporal limits:

This research is thus spatially bounded to the Iraqi Ministry of Health with major emphasis on its headquarters in Baghdad as well as the directorates and health units in the capital city only. Although the implemented Ministry’s policies and programs are general, this study focuses on Baghdad only since the central role of formulation and implementation of policies and planned programs originate from this region and for practical purposes. The focus made here helps the Ministry gain intimate knowledge of its activities together with their relation to sustainability within a region of interest without having to cover too large an area. Spatially, the research does not include every region in Ghana but it is focused on three specific regions: Greater Accra, Ashanti and Eastern regions where some selected districts were covered temporally between January 2023 and November, 2024. This period also included a series of policy development processes linked to the health sector reform initiative while enabling the identification of the recent processes towards incorporating sustainable development in the Ministry’s approach.

METHODOLOGY

This research uses a quantitative approach to establish how public policy management can contribute to the improvement of sustainable development within the ministry of health in Iraq. An interview guide will be used to conduct a survey questionnaire among a specimen of the Ministry’s employees limited to those in the policy-making, policy-executing, and policy-assessing positions. The questionnaire will gather information concerning the current policy management practices and policies with regard to sustainable developments; the participants’ views on perceived obstacles and potential for enhancing policy management practices. Any continuous survey data that will be collected will be summarized using statistic measures like mean, standard deviation and frequencies. Analytical and interpretative statistical tools such as correlation and regression tests will be used to analyze the hypothesis between public policy management practices and results of sustainable development. This quantitative approach will provide a systematic and rigorous analysis of the relationship between public policy management and sustainable development within the Iraqi health sector. Data analysis will be facilitated using statistical software SPSS27.

population and sample:

The research community is represented by employees in the Iraqi Ministry of Health, and we specifically target employees of primary health care services, specialized health care services, and administrative and support services, who are considered the most suitable to extract information from them to achieve the study objectives. The size of the target community according to the ministry is 512 employees, and to calculate the sample size from them we use the random sample law and find:

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1 - p)}{(E^2 \cdot (N - 1)) + (Z^2 \cdot p \cdot (1 - p))}$$

where n is the desired sample size, N is the population size (512 in this case), Z is the value corresponding to the confidence level (e.g., 1.96 for a 95% confidence level), p is the expected success or response rate (if unknown, 0.5 can be used to maximize the sample size), and E is the acceptable margin of error (e.g., 0.05 for a 5% margin of error). We calculate the sample size with a 95% confidence level, a 5% margin of error, and a 50% response rate: We find:

$$n = \frac{512 \cdot (1.96^2) \cdot 0.5 \cdot (1 - 0.5)}{(0.05^2 \cdot (512 - 1)) + (1.96^2 \cdot 0.5 \cdot (1 - 0.5))} = 219.59$$

Now, the sample size was calculated to be approximately 220 individuals to ensure the required accuracy with a 95% confidence level and a 5% margin of error. 230

questionnaires were distributed and 222 were returned, making the final sample size 222.

DISCUSSION AND RESULTS

1. The theoretical framework of the variables and the relationship between them:

The conceptual framework of this study is anchored on the relationship between public policy management and sustainable development. According to Nica (2015), public policy management is used as a critical tool in implementing sustainable development goals into specific policies within a society. Public policy management enhances the introduction of sound policies and practices in sectors, stages of policy formulation, implementation, resource mobilization and involvement of stakeholders in the policy-making process (Nica, 2015, Heinrichs & Laws, 2021). This study therefore assumes that the enhancement of these practices depends on the achievement of sustainable development results in the health sector. An important component of this frame work is the promotion of co-ordinate policy frameworks at the intersection of economic, social, and ecological polices (Meadowcroft, 2007). SD cannot be delivered disconnected one from the other: it is a paradox that requires the understanding of a more comprehensive structure of those dimensions. Moreover, it is noted that credible and involved stakeholders, including the public, contribute significantly to the formation of the policies on sustainable development and the monitoring of the actual results (Li et al., 2018; Hao et al., 2022). Community participation in issues of policy formulation and decentralized implementation furthers ownership and entails sensitivity to service recipients’ needs and expectations.

2. Study tool:

The major data collection method used in this research was a structured questionnaire developed by the researcher in order to see the level of contribution of the public policy management in increasing sustainable development in the Iraqi Ministry of Health. Questionnaire consisted of three major parts related to different aspects of the study. The first part was to provide the socio-demographic questionnaire data portraying the respondents’ age, department to which he/she belongs, the number of years he/she has been working, and the level of education achieved. This information served as useful background knowledge for understanding the results analyzed next. The second part surveyed the management of public policies within the Ministry looking at the extent to which strategic planning, budgets and resources, consultations with the stakeholders, evaluation activities, and the level of accountability were implemented and practiced. Instruments: Respondents were requested to fill in the extent to which they agreed with statements about these practices on a five Likert scale

comprising of Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The third part examined the Ministry’s performance in terms of the promotion and implementation of Sustainable Development, particularly on the ways through which economic, social and environment factors have been incorporated into policy. As in the second part of the questionnaire, the level of respondents’ agreement with the statement about the Ministry’s performance was measured by the 5-point Likert scale indicating the importance of areas like resources distribution and allocation, intergenerational equity, environmental consideration, collaboration and partnership. The detail of the questionnaire allowed the best analysis of the multifaceted relationship between PPM and sustainable development in the Iraqi health sector.

3. Validity and reliability of the questionnaire:

The content validity of the questionnaire across was deduced by involving experts in public policy healthcare management and sustainable development. These experts reviewed the questions in relation to the objectives of the study as well as the theoretical framework of the study. Following data collection, several statistical tests were performed to evaluate the reliability and internal consistency of the questionnaire:

Table.1: Questionnaire reliability results

Reliability Statistics		
Variable	N of Items	Cronbach's Alpha
public policy management	10	0.849
sustainable development	10	0.913
ALL	20	0.948

Source: Prepared by the researcher based on sample data and SPSS27 program

The internal consistency of the questionnaire was determined by calculating Cronbach’s coefficient alpha which provides the measure of the internal consistency of a set of items as a entirety. As indicated in table 1, the scale on public policy management achieved a test-retest Cronbach alpha coefficient, which was 0.849. As such, the sustainable development scale had good test-retest reliability, giving a Cronbach’s alpha of 0.913 for internal consistency. The computed reliability level of the questionnaire reached a Cronbach’s alpha of 0.948 for all items in the scale. These results suggest that the items within each scale are measuring the same underlying construct and that the questionnaire as a whole is a reliable tool for data collection. Generally, a Cronbach's alpha value of 0.7 or higher is considered acceptable, and values above 0.8 are considered good or excellent. The values obtained in this

study surpass this threshold, providing strong evidence for the reliability of the questionnaire.

Table.2: Results of the internal consistency validity of the questionnaire

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.878
Bartlett's Test of Sphericity	Approx. Square	Chi-	3429.1
	df		190
	Sig.		.000

Source: Prepared by the researcher based on sample data and SPSS27 program

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to assess the suitability of the data for factor analysis, an essential step in examining the construct validity of the questionnaire. Table 2 presents the results of these tests. The KMO value of .878 exceeds the recommended threshold of .6, indicating that the sample size is adequate and the correlations between items are suitable for factor analysis. Bartlett's test of sphericity examines the null hypothesis that the correlation matrix is an identity matrix, meaning there are no significant relationships between the variables. The significant result ($\chi^2 = 3429.1$, $df = 190$, $p < .001$) rejects the null hypothesis, confirming that the correlation matrix is not an identity matrix and that there are sufficient inter-item correlations to proceed with factor analysis. These results support the validity of the questionnaire and indicate that the data is appropriate for further statistical analysis, strengthening the foundation for investigating the relationships between public policy management and sustainable development.

4. Demographic information analysis

Table.3: Specifications of respondents by Age, Department, Experience, Education

Age		
	N	%
20-29 years old	47	21.2%
30-39 years old	113	50.9%
40-49 years old	34	15.3%
50 years or older	28	12.6%
Department		
	N	%
Primary Healthcare Services	137	61.7%
Specialized Healthcare	29	13.1%

Services		
	N	%
Administrative and Support Services	56	25.2%
Years of Experience at the Central Bank of Iraq		
	N	%
Less than 5 years	33	14.9%
5-10	56	25.2%
11-15	133	59.9%
Highest Level of Education		
	N	%
Bachelor's Degree	191	86.0%
Master's Degree	16	7.2%
PhD	15	6.8%

Source: Prepared by the researcher based on sample data and SPSS27 program

The demographic profile of the respondents reveals a diverse representation within the Iraqi Ministry of Health. As shown in Table 3, the largest age group represented was 30-39 years old (50.9%), followed by 20-29 years old (21.2%), suggesting a relatively young workforce. The distribution across departments shows a predominance of employees from Primary Healthcare Services (61.7%), reflecting the Ministry's focus on primary care delivery. A majority of respondents (59.9%) had 11-15 years of experience at the Central Bank of Iraq, indicating a substantial level of experience within the public sector. In terms of education, the vast majority held a Bachelor's degree (86%), followed by smaller percentages with Master's degrees (7.2%) and PhDs (6.8%). This high level of educational attainment suggests a skilled workforce capable of engaging with complex policy issues. From a managerial perspective, the relatively young workforce presents both opportunities and challenges. While the younger demographic may be more adaptable to change and open to new approaches to sustainable development, they may also lack the extensive institutional knowledge and experience of their older colleagues. The concentration of respondents in Primary Healthcare Services underscores the importance of integrating sustainable development principles into primary care delivery, where the majority of patient interactions occur. The significant experience within the public sector could be leveraged to promote institutional change and policy implementation, while the high level of educational attainment suggests a strong capacity for policy analysis and development.

1- Descriptive Statistics and Graphical Analysis:

Through this paragraph, we get the sample individuals' assessment of the direction of implementing public policies and achieving sustainable development:

Table.4: Descriptive statistics for public policy management

Paragraph	N	Mean	Std. Deviation	Answer category
Strategic planning processes are effectively used in developing programs and initiatives.	222	4.2523	.57816	Strongly Agree
Development of programs and initiatives involves a participatory approach, including relevant stakeholders.	222	4.2838	.59073	Strongly Agree
Clear implementation guidelines and procedures are established and communicated for programs and initiatives.	222	4.0766	.70454	Agree
Adequate resources (financial, human, technological) are allocated for program and initiative implementation.	222	4.3784	.76760	Strongly Agree
Monitoring and evaluation mechanisms are in place to track the effectiveness of programs and initiatives.	222	4.1081	.92576	Agree
Decisions about programs and initiatives are based on evidence-based research and data analysis.	222	4.1216	.77201	Agree
There is effective coordination and communication between different departments involved in implementing programs and initiatives.	222	4.0405	.82559	Agree
Capacity building initiatives are undertaken to enhance management skills related to programs and initiatives among staff.	222	3.9009	1.03736	Agree
The Ministry fosters a culture of transparency and accountability in the management of programs and initiatives.	222	3.9640	1.01060	Agree
Feedback mechanisms are utilized to adapt and improve programs and initiatives based on implementation outcomes.	222	4.0586	.95661	Agree
public policy management	222	4.1185	.54122	Agree

Source: Prepared by the researcher based on sample data and SPSS27 program

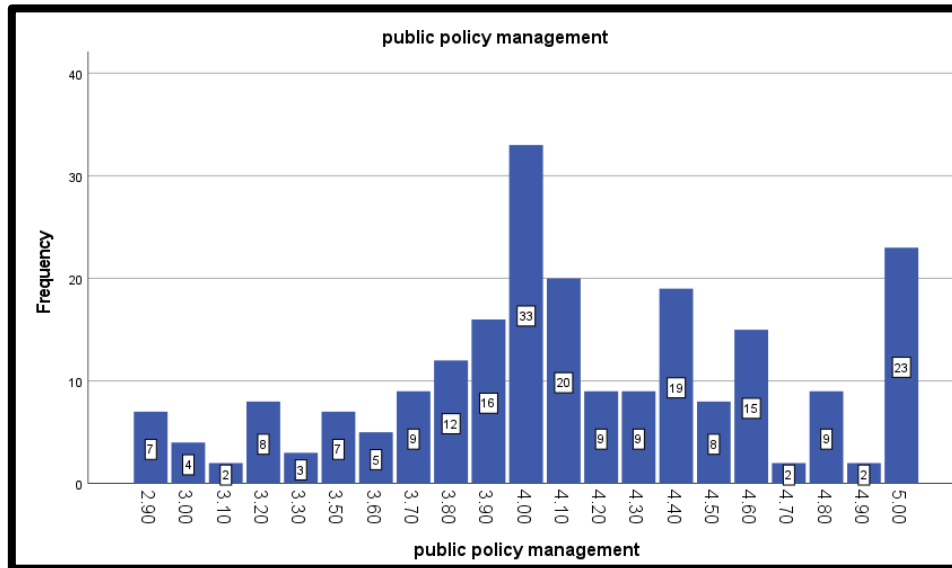
The descriptive statistics presented in Table 4 provide insights into the respondents' perceptions of public policy management practices within the Iraqi Ministry of Health. Using a five-point Likert scale (where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree"), the overall mean score for public policy management was 4.1185, indicating a generally positive assessment of these practices. This suggests that respondents perceive the Ministry as employing effective strategic planning processes, engaging stakeholders in program development, establishing clear implementation guidelines, and allocating adequate resources. The relatively low standard deviation of 0.54122 indicates a reasonable consensus among respondents regarding the effectiveness of public policy management. This positive perception forms a foundation for potential improvements and highlights the existing strengths that can be leveraged to further enhance the Ministry's capacity for sustainable development. Analyzing the individual items within the public policy management scale reveals areas of strength and potential

improvement. The highest mean scores were observed for "Adequate resources are allocated for program and initiative implementation" (4.3784) and "Development of programs and initiatives involves a participatory approach" (4.2838), indicating strong agreement in these areas. This suggests a positive perception of resource allocation and stakeholder engagement within the Ministry. Conversely, the lowest mean score was for "Capacity building initiatives are undertaken to enhance management skills" (3.9009), although still reflecting general agreement. From a managerial standpoint, this suggests a potential area for improvement within the Ministry. Investing in capacity building initiatives, particularly those focused on enhancing management skills related to sustainable development, could further strengthen the Ministry's ability to implement effective policies and achieve its sustainability goals. This discrepancy between perceived strengths in resource allocation and stakeholder engagement and a relative weakness in capacity building highlights the need for a balanced approach to public policy management, ensuring

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that investments in human capital development are commensurate with the resources allocated to program implementation.

Figure.1: The trend of the answers for public policy management



Source: Prepared by the researcher based on sample data and SPSS27 program

Table.5: Descriptive statistics for sustainable development

Paragraph	N	Mean	Std. Deviation	Answer category
Current initiatives effectively balance economic growth with social equity and environmental protection.	222	3.9550	1.00124	Agree
Resource allocation prioritizes long-term societal well-being over short-term gains.	222	3.9910	.91736	Agree
Programs and strategies promote intergenerational equity, ensuring future generations have access to necessary resources.	222	3.9234	.88655	Agree
Current practices actively mitigate environmental risks and promote ecological resilience.	222	3.9685	.75740	Agree
Decision-making processes incorporate a comprehensive assessment of social, economic, and environmental impacts.	222	3.9910	.76691	Agree
Existing frameworks foster collaboration and partnerships to address complex sustainability challenges.	222	4.0541	.82756	Agree
Current initiatives promote innovation and technological advancements that contribute to sustainable solutions.	222	3.9640	1.04147	Agree
Monitoring and evaluation mechanisms track	222	3.9369	1.15166	Agree

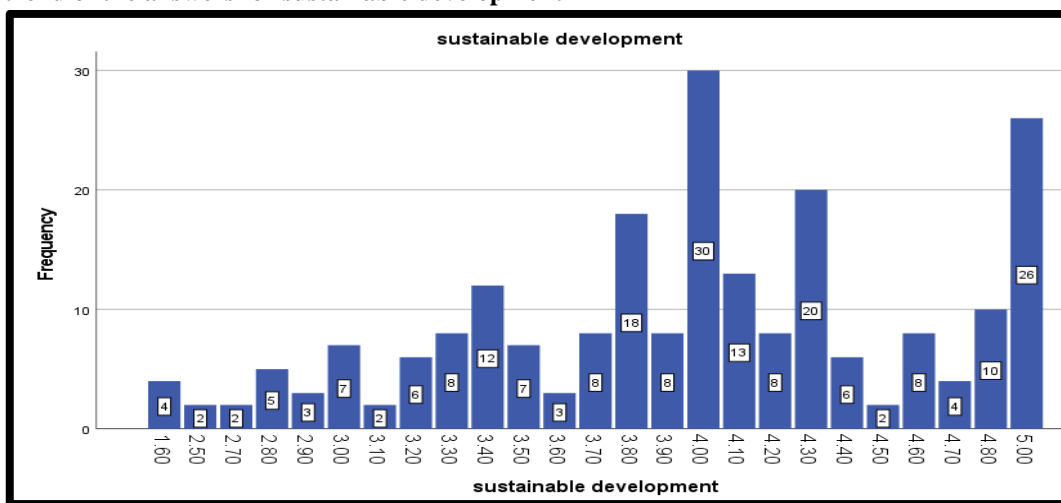
progress towards achieving sustainability goals across various sectors.				
Capacity building efforts empower individuals and communities to contribute to and benefit from sustainable development.	222	3.7928	1.06033	Agree
Policies and practices effectively address social inequalities and promote inclusivity in the pursuit of sustainable development.	222	4.0405	.78052	Agree
sustainable development	222	3.9617	.69525	Agree

Source: Prepared by the researcher based on sample data and SPSS27 programmer

Table 5 presents the descriptive statistics for respondents' perceptions of sustainable development within the Iraqi Ministry of Health. The overall mean score for sustainable development was 3.9617, indicating a generally positive perception of the Ministry's efforts in this area. While slightly lower than the mean score for public policy management, this result suggests that respondents generally agree that the Ministry's initiatives balance economic growth with social equity and environmental protection. The relatively low standard deviation of 0.69525 signifies a moderate consensus among respondents. This positive perception, while encouraging, highlights the need for continued efforts to strengthen the integration of sustainable development principles into the Ministry's operations. A closer examination of the individual items reveals variations in respondents' perceptions. The highest mean score was observed for "Existing frameworks foster collaboration and partnerships to address complex sustainability challenges" (4.0541), suggesting a strong perception of collaborative efforts within the Ministry. "Policies and practices effectively address social inequalities and promote

inclusivity" also received a relatively high mean score (4.0405), indicating positive views on inclusivity efforts. Conversely, the lowest mean score was for "Capacity building efforts empower individuals and communities to contribute to and benefit from sustainable development" (3.7928), mirroring a similar finding in the public policy management section. This points to a consistent area where respondents perceive a need for improvement. From a managerial perspective, prioritizing capacity building initiatives focused on sustainable development could significantly enhance the Ministry's effectiveness in achieving its sustainability goals. Strengthening collaboration and partnerships, while viewed positively, should not overshadow the critical need to invest in human capital development, equipping individuals and communities with the necessary skills and knowledge to contribute meaningfully to sustainable development outcomes. This targeted approach to capacity building can ensure that the Ministry's efforts are not only perceived as inclusive but also empower stakeholders to actively participate in the pursuit of sustainable development.

Figure.2: The trend of the answers for sustainable development



Source: Prepared by the researcher based on sample data and SPSS27 program

2- Hypothesis testing:

To determine the statistical significance of the relationship between public policy management practices and the achievement of sustainable development outcomes within the Iraqi Ministry of Health, the following hypothesis was tested: H1: There is a statistically significant positive

relationship between the effective implementation of public policy management practices and the achievement of sustainable development outcomes within the Iraqi Ministry of Health. This hypothesis was examined using correlation and regression analysis:

Table.6: Results of testing the hypothesis

Model Summary ^b							
Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate	F-Statistics (sig)	Durbin-Watson
1	.859 ^a	.738	.737		.35669	619.6 (0.000)	2.016
Coefficients ^a							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	-.583	.184		-3.167	.002	
	public policy management	1.104	.044	.859	24.892	.000	

a. Dependent Variable: sustainable development

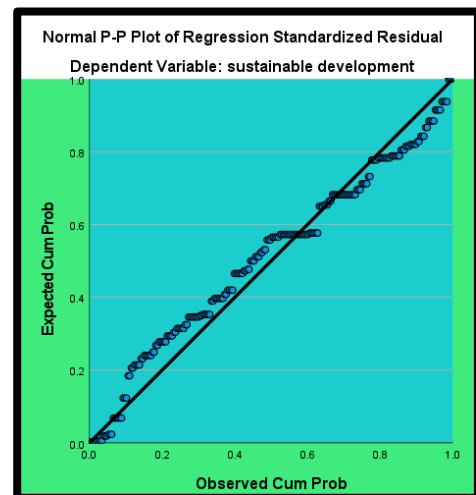
Source: Prepared by the researcher based on sample data and SPSS27 program

The results of the regression analysis, presented in Table 6, provide strong support for the study's hypothesis. The analysis reveals a significant positive correlation between public policy management practices and sustainable development outcomes ($R = .859, p < .001$). This high correlation coefficient suggests a strong linear relationship between the two variables. The R-squared value of .738 indicates that approximately 74% of the variance in sustainable development outcomes can be explained by the effectiveness of public policy management practices. The F-statistic (619.6, $p < .000$) further confirms the overall significance of the regression model, indicating that the model is a good fit for the data. The Durbin-Watson statistic of 2.016 suggests no significant autocorrelation in the residuals, satisfying an important assumption of regression analysis. These results confirm the hypothesis that effective implementation of public policy management practices is significantly and positively associated with improved sustainable development outcomes within the Iraqi Ministry of Health.

The regression coefficient (B) for public policy management is 1.104 ($p < .001$), indicating a positive and statistically significant impact on sustainable development. This means that for every one-unit increase in the effectiveness of public policy management practices, sustainable development outcomes are predicted to increase by 1.104 units. The standardized beta coefficient of .859 further underscores the substantial influence of public policy management on

sustainable development. From a managerial perspective, this finding emphasizes the crucial role of effective public policy management in achieving sustainable development goals within the health sector. Investing in and strengthening public policy management practices, including strategic planning, resource allocation, stakeholder engagement, and monitoring and evaluation, is likely to yield substantial improvements in sustainable development outcomes.

Figure.3: Model Fit



Source: Prepared by the researcher based on sample data and SPSS27 program

The Normal P-P Plot of Regression Standardized Residual assesses the normality assumption of the residuals in the regression analysis. The plot displays the observed cumulative probabilities of the standardized residuals against the expected cumulative probabilities if the residuals were perfectly normally distributed. In this case, the plotted points closely follow the diagonal line, indicating that the residuals are approximately normally distributed. This supports the validity of the regression model and its associated statistical inferences, as the normality of residuals is a key assumption for the reliability of these tests.

CONCLUSIONS AND RECOMMENDATIONS

This study aimed to investigate the role of public policy management in enhancing sustainable development within the Iraqi Ministry of Health, addressing the research problem of limited understanding regarding the factors influencing the effectiveness of sustainable development initiatives within this context. The central research question explored how public policy management practices could be enhanced to effectively promote sustainable development within the healthcare sector. Through a quantitative research design employing a structured questionnaire administered to Ministry employees, the study analyzed perceptions of current policy management practices, their alignment with sustainable development principles, and the perceived challenges and opportunities for improvement. The findings revealed a strong positive correlation between effective public policy management practices and the achievement of sustainable development outcomes, confirming the study's hypothesis. Specifically, the research identified strengths in resource allocation and stakeholder engagement, while also highlighting a need for strengthened capacity building initiatives related to sustainable development. These results provide valuable insights for policymakers and practitioners within the Iraqi Ministry of Health, offering empirical evidence to support targeted interventions aimed at enhancing sustainable development outcomes.

Therefore, the following recommendations are suggested as the key action points of the study. First, the Ministry should encourage investment in capacity building programs targeting improvement of management skills in sustainable development since the gap revealed was low perceived effectiveness in this area. Second, the resource allocation efficiency and stakeholder capacity, which have been developed over the years, should be employed to continuously enhance the cultivation of sustainable development themes across policy and decision-making processes. Third, there should be consistent and recurrent ways of checking strategy, effectiveness of the interventions, and adjust policies based on evaluation.

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