External consequences of public policy implementation based on social responsibility dimensions at the universities of medical sciences

Sakineh Ashrafi[1] iD, Alireza Maetoofi*[1] iD, Ali Farhadi[1] iD, Mojtaba Tabari[2] iD

[1] Department of Management, Gorgan Branch, Islamic Azad University, Gorgan, Iran.
[2] Department of Management, Ghaemshahr Branch, Islamic Azad University, Ghaemshahr, Iran.
Corresponding author and reprints: Alireza Maetoofi, Associate Professor, Department of Management, Gorgan Branch, Islamic Azad University, Gorgan, Iran.
Email: alirezamaetoofi@gmail.com

Abstract

Background: The implementation of public policy in the presence of social responsibility dimensions is an opportunity to gain the support and trust of citizens. The present study aimed to investigate the external consequences of public policy implementation based on the dimensions of social responsibility in the Universities of Medical Sciences.

Methods: In a mix method research, in the qualitative phase twenty experts were selected by purposive sampling method with snowball approach. In the qualitative part 681 employees of these units were selected by relative sampling method. The data collection tool was a researcher-made questionnaire. Descriptive statistics and structural equation modeling were used when appropriate. MAXQDA11, SPSS and Smart PLS3 software were used for analysis.

Results: In the first phase, 14 categories were finally identified, of which 7 categories were identified as components of social responsibility and 7 categories for the external consequences of implementing public policy in three stages of coding. Findings of the research in the qualitative section, introduced 6 categories as causal factors, pivotal phenomenon, strategy, intervening and contextual factors and consequences of implementing a policy based on social responsibility in the Universities of Medical Sciences. In the quantitative part, the two propositions of balance of social values and public acceptance and motivation as the most effective criterion in promoting social values were selected by the managers.

Conclusion: Public policy implementation with a focus on social responsibility dimensions can help increase the socially sustainable development of the Universities of Medical Sciences.

Introduction

As the level of political, social, cultural and economic change increases, the implementation of a policy will become more difficult. This is one of the main issues facing organizations, especially government. If an institution or organization adheres to the dimensions of social responsibility in the implementation of policy, it will have the capacity to participate and support stakeholders in order to maintain the majority of benefits. Accordingly, the implementation of public policy in the presence of social responsibility dimensions is an opportunity to gain the support and trust of citizens in order to increase effectiveness and achieve maximum consequences of its implementation (1). The focus on social responsibility in public policy
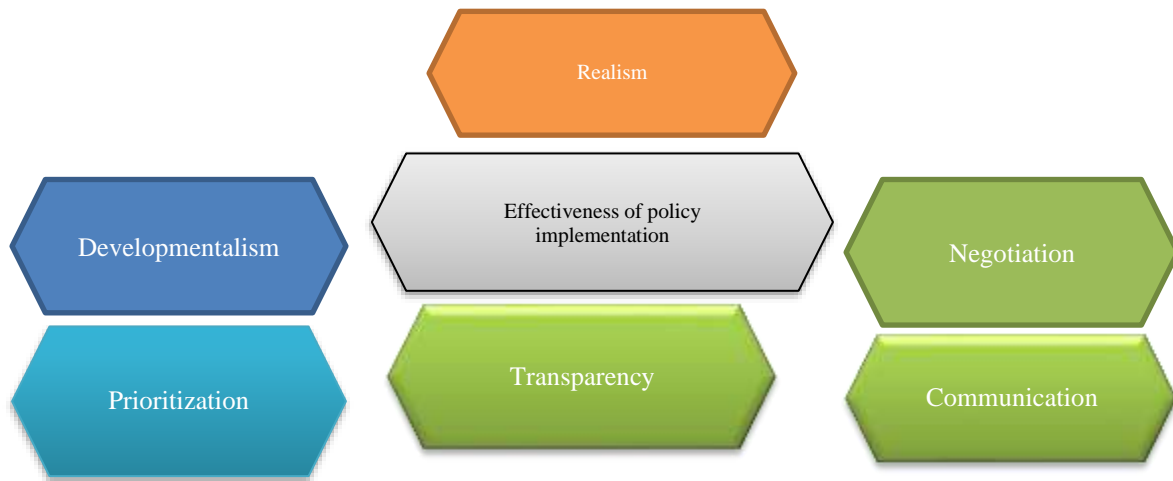
Figure 1. The effectiveness of public policy implementation

implementation has also changed policy knowledge approaches. Because modern public administration has shifted from the mere rule of efficiency, law and political values to the traditional paradigms of public administration, the context of the governance of social values has now emerged as a new paradigm in modern public administration (2). The level of importance of integrating the dimensions of social responsibility in achieving the desired outcomes of public policy implementation can be examined from two perspectives.

Public Policy Implementation

After forming society and establishing government at the national level, social life certainly faces issues and problems different from individual issues and problems, although may be related to various individuals. For resolving these issues and problems, measures and solutions are needed that are generally adopted by the government (3). One of the ways to solve society's problems is the proper implementation of public policy. Although formulating process policies and strategic plans is difficult, time-consuming, and challenging, their successful implementation is more difficult. The effects and consequences of a policy occur due to its implementation, and improper implementation of the policy destroys all hopes to achieve the expected effects of the

developed policy. Attempting to fill the gap between the design and implementation of policies, Javier et al. determined the level of effectiveness of the following dimensions in Figure 1 (4).

Policy realism, negotiation on the main issue, development of communication, allocation of clear expression of policies and priorities, continuous monitoring of implementation, and creation of new implementation capacities all help increase the effectiveness level of public policy implementation and fill the gap between development and implementation. Therefore, the implementation phase requires activities including improving knowledge and skills and facilitating the change process.

Adegbite et al. showed that the three economic, governmental, and environmental dimensions were the most effective social responsibility strategies for stakeholders that investment companies and active banks should consider at the Nigerian capital market level (5). Ertan showed that the existence of social attitudes and positive imagery of the institutions or organizations developing public policies could help increase collective participation, enhance value pluralism among all domestic and foreign stakeholders, and shape balanced rights in the form of social values (6). In a study, Sharafi et al. investigated the relationship between

factors related to implementing virtual social network policies in Iran concerning the mediating role of social responsibility. The results showed a significant direct relationship between social responsibility and the implementation rate of social network policies and between the components of factors related to the implementation rate of virtual social network policies. The results indicated that corporate social responsibility with 69% intensity and shared value creation with 63% intensity affected the corporate sustainability development. Also, an improved relationship was observed between corporate responsibility and shared value creation for stakeholders based on corporate governance. Also, with 27% intensity, corporate governance indirectly affected corporate sustainability development (7).

Theoretically, it has been confirmed that a deep gap has been created between the acceptance of laws and regulations and their application due to the lack of attention to the level of expectations and social change (8, 9). This is because the development and implementation of a public policy does not originate in the context of the community for which it is developed and implemented. The existence of this deep gap is due in part to the lack of connection between facts and social change and theory, which is often overlooked in the analysis of social needs. From a practical point of view, the organization of medical sciences is in line with the vision of 1404 in Iran, under regulations such as Article 12 of the regulations in the administrative organizations of universities and colleges of medical sciences and health services. This emphasizes the need to link public policy development and implementation consistent with the organization's social responsibilities as an existential philosophy and to increase the effectiveness of learning and health education by focusing on social expectations and creating pluralistic values to achieve developed goals and strategies. Therefore, this study was conducted with the aim of interpreting the external consequences of public policy implementation based on the dimensions of social responsibility in the Universities of Medical Sciences.

Method

This research was mix method using qualitative and quantitative parts. The statistical population of the research in the qualitative phase included the experts of the Universities of Medical Sciences. Twenty people were selected by purposive sampling method with snowball approach to achieve theoretical saturation. In the quantitative part 681 employees of these units were selected by proportional to size sampling method. The data collection tool in the qualitative part was a semi-structured interview and in the quantitative part was a researcher-made questionnaire. The reliability and validity of the questionnaire were calculated by Delphi technique and the relative content validity coefficient (CVR) and structural validity and the reliability of the questionnaire questions was estimated by Cronbach's alpha coefficient higher than 0.7.

Because in the first phase, in the qualitative section, using international and domestic research databases and references, the components of social responsibility and the external consequences of public policy implementation were categorized based on method. In the first phase, the statistical community in the qualitative section, scientific research articles published from 2017 to 2020 in reputable databases such as Google Researcher and Science Direct in the field of public policy implementation based on the dimensions of social responsibility at the Universities of Medical Sciences. In other words, in order to find similar articles and researches and using international and domestic research databases and references, researches related to the research goal were identified. It was systematically combined and in the second phase, in the interpretive leveling section (TISM-IRP), the most effective external

consequence of the implementation of public policy related to social value-oriented consequences was identified. It should be noted that in the second phase, in order to conduct the Interpretive Ranking Analysis (IRP) section, according to the zoning of Article 77 of the Fourth Plan Law of the Executive Regulations, which has distributed medical universities in 10 central sections, 22 managers with experience in these ten areas were selected and participated. It should be noted that since interpretive ranking analysis (TISM-IRP) is an analysis based on matrix analysis and analysis in operations, it should be done based on a specific criterion such as

experience or expertise by the participants, based on sample size.

In order to analyze the data in the qualitative part, MAXQDA11 software and in the quantitative part, for the descriptive statistics (mean and standard deviation) SPSS23 statistical software were used. In the inferential statistics section, structural equation modeling based on the partial least squares approach was used by Smart PLS3 statistical software.

Results

According to the explanations given, meta-synthesis analysis and IRP were presented

Table 1. The interpretive analysis of the cross-matrix of social responsibility with the external consequences of public policy implementation*

	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X1	Focus on the environmental dimensions as a stimulus for the sustainable development			Environmental dimension as a factor for balancing social values	Environmental dimension as a factor for changing attitudes and social behavior	Environmental dimension as a stimulus for forming social insight	
X2	Organization's social ties as a factor for increasing sustainability in development	Organization's social ties as a factor for public trust increase		Social dimension as a stimulus for social values		Social dimension as a stimulus for the formation of social insight	
X3	Focus on the economic dimensions of social responsibility as a stimulus for public legitimacy		Maintaining the economic benefits of stakeholders as a way for public legitimacy	Economic dimension as a stimulus for balancing social values	Economic dimension as a stimulus for changing attitudes and social behavior	Economic dimension as a stimulus for forming social insight	
X4			Maintaining the majority of expectations as a factor for public legitimacy		Stakeholders' dimension as a stimulus for changing attitudes and social behavior	Stakeholders' dimension as a stimulus for forming social insight	
X5		Voluntary functions as a stimulus for public trust increase		Voluntary dimension as a stimulus for social values		Voluntary dimension as a stimulus for forming social insight	Voluntary dimension as a stimulus for integrating social expectations
X6		The morality of organizational functions as a stimulus for public trust increase	Developing morality in organizational functions as a stimulus for legitimacy	Moral dimension as a stimulus for balancing social values	Moral dimension as a stimulus for changing attitudes and social behavior	Moral dimension as a stimulus for forming social insight	
X7		Observing the rules as a factor for public trust increase	Observing the rules as a factor for public legitimacy			Institutional dimension as a stimulus for forming social insight	Institutional dimension for integrating social expectations

*Components of The External Consequences of Public Policy Implementation in columns (Y) and Social responsibility in rows (X)

in the qualitative and quantitative sections, respectively.

1) Meta-Synthesis Findings

After three stages of content coding, 14 categories were finally identified. Using MAX QDA software in 7 categories as components of social responsibility (X) (environmental dimension, social dimension, economic dimension, stakeholder dimension, voluntary dimension, ethical dimension, institutional dimension) and 7 categories for external consequences of implementation General policy (Y) (capacities of sustainable development, increasing public trust, public acceptance and legitimacy, balance of social values, change of social attitudes and behavior, formation of social insights, integration of social expectations) were identified.

2) The Interpretive Ranking Process (IRP)

Once the components of social responsibility (X) and the statements related to the external consequences of the implementation of the public policy (Y) have been identified, the processes related to this analysis performed based on the effect of line "i" on column "j" or vice versa. Therefore, in order to create interactive matrices, the level of direct, symmetric or indirect communication must be considered in line with the explanations at first. Therefore, primarily, a matrix

questionnaire was created. Then, based on the results of the table 1, an interpretive matrix was designed to contrast the level of social responsibility components with the external consequences of implementing public policy.

Now, based on the obtained results, the level of transferability can be seen in Table 1 and Figure 1, which is related to the reference proposition, i.e., the formation of social insight (Y6) based on the environmental dimension, showing the highest level of transferability. Based on these results, the percentages of the total level of effect points were presented.

As can be seen, the highest level of transferability in this proposition is based on the transitional influence of the moral dimension on other components of the dimension of social responsibility. Based on these results, the percentage points of the total level of influences were calculated and it was found that approximately half of the comparisons were 46.25% of the relations of the implicit type. Out of 147 pairwise comparisons, 19.73% of the comparisons between the outcomes of optimal implementation of public policy-making have transferable relationships. It was also found that the highest number of interpretive comparisons between the consequences of optimal implementation of policy-making based on the dimensions of

Table 2. Investigating the interpretive effect of the environmental dimension based on the components of social responsibility

|		Environmental Dimension	Social Dimension	Economic Dimension	Stakeholders' Dimension	Voluntary Dimension	Moral Dimension	Institutional Dimension
		X1	X2	X3	X4	X5	X6	X7
Environmental Dimension	X1	-						
Social Dimension	X2	1	-					
Economic Dimension	X3	*1	1	-				
Stakeholders' Dimension	X4	*1	*1	1	-			
Voluntary Dimension	X5	*1	*1	*1	1	-		
Moral Dimension	X6	*1	*1	*1	*1	1	-	
Institutional Dimension	X7	*1	*1	*1	*1	*1	1	-
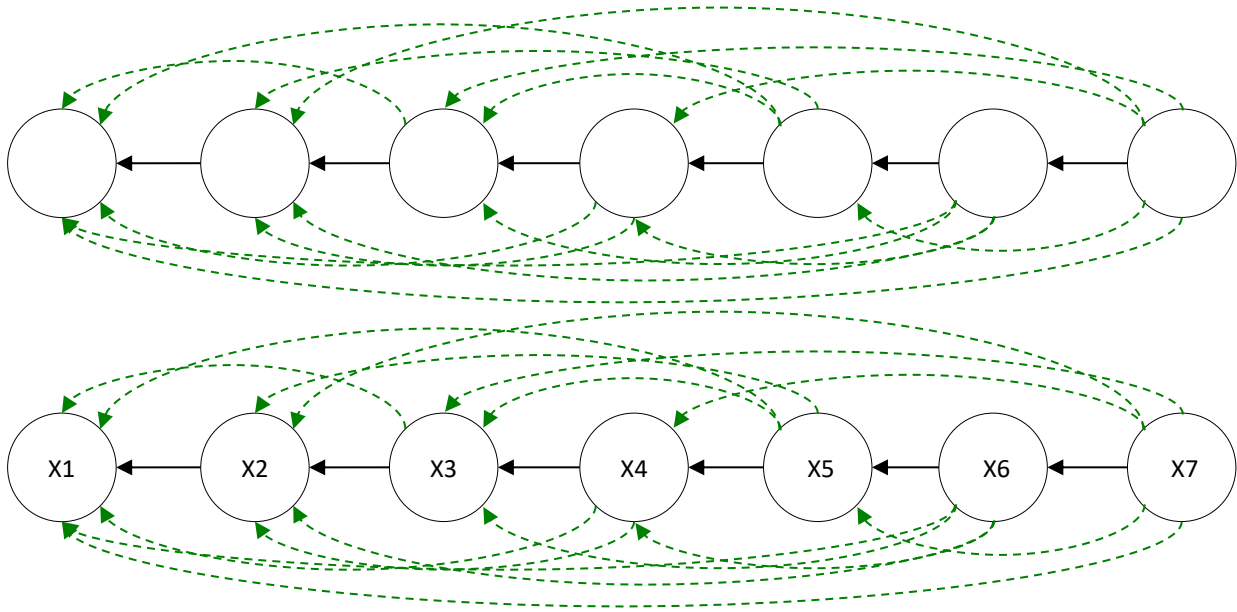
Figure 2. The transferability processes between the components of social responsibility

social responsibility on the formation of social insight was Y6, ie 28.57% and the lowest interpretive comparison was related to the integration of Y7 social expectations with 4.76%. Based on the results obtained, the table below shows the rankings related to the implementation of interpretive rating processes (IRP).

In order to determine the weights of research propositions as reference variables, through comprehensive structural interpretive analysis (TISM), the consequential propositions of the optimal implementation of the general policy should be examined. Due to the two-dimensionality of the level of desirable outcomes, the implementation of public policy has been done separately under the heading of social value-oriented consequences and social-normative social consequences. The scales then become the values of social value. To the calculated weights, a conical matrix is presented to

identify the most effective level of social value-oriented consequences, which can be seen in Figure (3). Now, based on the calculated weights, a conical matrix was presented to identify the most effective level of social value-oriented consequences, which can be seen in Figure 3.

In this section, to select the most influential component related to social responsibility dimensions of the Universities of Medical Sciences, the following table was developed. By comparing simple IRP in Table 5 and interpretive ranking in the above table regarding social responsibility dimensions, it was clear that most of these rankings were similar in both cases, except for the components X3 and X5, i.e., the economic dimension and the voluntary dimension. The dimensions were in reversed whose results can be seen in the following table.

Table 3. The dependence level ranking and the influence of social responsibility dimensions

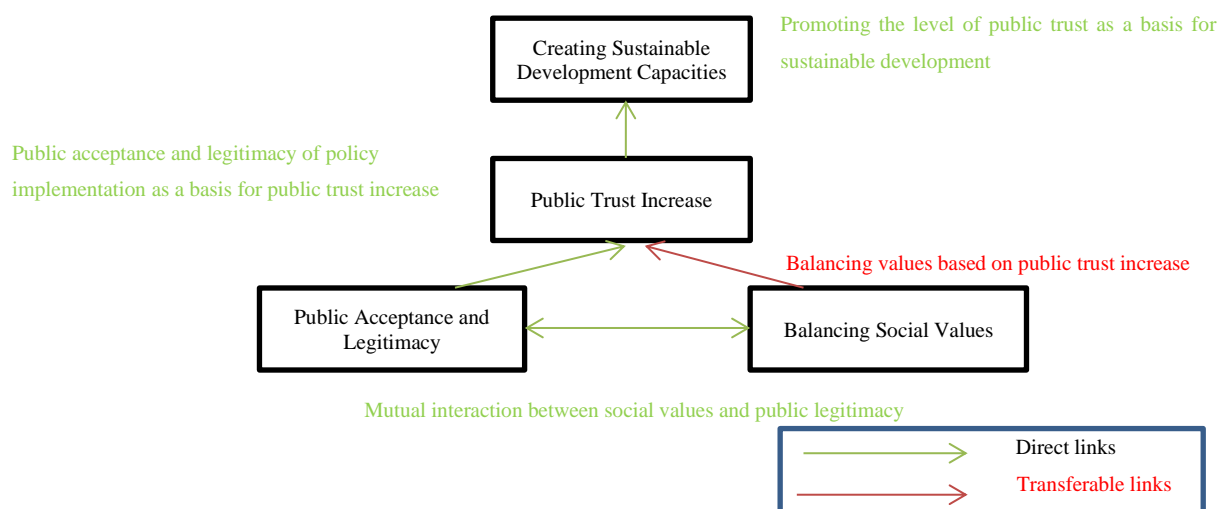|	X1	X2	X3	X4	X5	X6	X7	Dependence Level of D	Difference D-B	Rank
X1	-	1	1	2	2	1	3	10	-14	7
X2	3	-	2	3	2	2	3	15	-3	5
X3	5	4	-	4	3	1	3	20	2	3
X4	3	2	2	-	1	2	1	11	-10	6
X5	4	3	4	4	-	1	1	17	0	4
X6	5	4	5	4	5	-	2	25	14	1
X7	4	4	4	4	4	4	-	24	11	2
Influence Level of B	24	18	18	21	17	11	13	122		

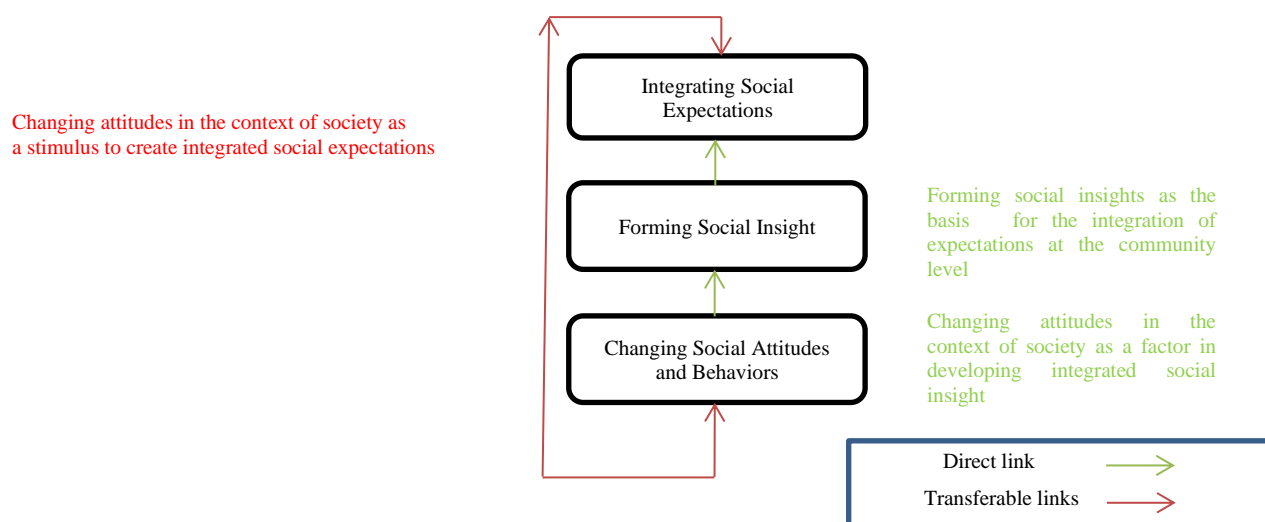Figure 3. The conical matrix of social value-oriented consequences

Figure 4. The conical matrix of social normative consequences

Table 4. Selecting the most influential component among social responsibility dimensions

	X1	X2	X3	X4	X5	X6	X7	Dependence Level of D	Difference D-B	Rank
X1	-	0.37	0.37	1.82	0.87	0.37	2.32	6.12	-23.4	7
X2	3.95	-	1.87	3.32	0.87	1.87	2.32	14.2	-5.74	5
X3	6.13	4.63	-	4	2.23	0.37	2.32	19.77	-0.46	4
X4	3.95	2.45	2.5	-	1.95	1.5	0.5	12.85	-10.28	6
X5	4.68	3.18	4.68	4.68	-	1.5	1.45	20.17	5.35	3
X6	6.13	4.63	6.13	4.63	5.13	-	1.95	28.6	18.31	1
X7	4.68	4.68	4.68	4.68	3.68	4.68	-	27.08	16.22	2
Influence Level of B	29.52	19.94	20.23	23.13	14.82	10.29	10.86	128.79		

Table 5. Comparative ranks for simple and weighted IRPs

Flexibility Solutions	Code	Ranks with Simple Interpretive Ranking Process	Ranks with Weighted Interpretive Ranking Process
Environmental dimension	X1	7	7
Social dimension	X2	5	5
Economic dimension	X3	3	4a
Stakeholders' dimension	X4	6	6
Voluntary dimension	X5	4	3a
Moral dimension	X6	1	1
Institutional dimension	X7	2	2

Discussion

The present study aimed to investigate the interpretive analysis of the external consequences of public policy implementation based on social responsibility dimensions at the Universities of Medical Sciences in the form of IRP. It also aimed to determine the components of social responsibility to promote the level of values of public policy implementation in medical universities. In the first step, an attempt was made to determine the consequential propositions of desirable public policy implementation and the components of social responsibility from similar studies based on meta-synthesis analysis. Afterward, in the form of IRP, it was attempted to determine the most effective component of social responsibility to improve the level of consequences resulting from the proper implementation of a public policy. Then, based on the identified components and propositions, the research entered the IRP-TISM phase to examine the research objectives through multiple decision-making analyses. The analysis of the obtained results interpreted the results in several sections. In the first section, based on the results of TISM related to social value-oriented consequences resulting from the proper public policy implementation at the level of the Universities of Medical Sciences, it was found that the two propositions of balancing social values and public acceptance and legitimacy were the most effective criteria in promoting social values. It should be stated that balancing social values based on the implementation of a desirable policy can strengthen the level of value-oriented identity-building and also the individuals' level of participation based on a shared value. The existence of balanced social values is an approach based on the interaction between the citizens of a policy-implementing institution or organization such as the Universities of Medical Sciences in advancing developed goals and strategies, which helps the dynamics of programs and strategies be pursued more coherently in line with balanced values among stakeholders. Regarding the value-oriented consequences of the proposition of public acceptance and legitimacy, it was found that it had a greater effect on public policy implementation at the Universities of Medical Sciences. The result obtained in this section is consistent with Marotta and Nazzaro's, Uyarra et al., Hajatpour et al., and Watandoost et al. studies (10, 11-13).

In another section of this study, changing attitudes and social behavior (Y5) was found to be the most effective social normative consequence, indicating the correction or change of stakeholders' attitudes toward an organization such as the Universities of Medical Sciences. These changes can help develop and improve organizational performance compared to providing better services to citizens and clients, create a more coordinated level of

social attitudes toward the Universities of Medical Sciences, and strengthen the level of satisfaction and commitment to programs and participation in developed goals and strategies. This attitude also determines the social behavior that will lead to prosperity and dynamism of effective functions of the Universities of Medical Sciences by increasing trust in programs and the correct implementation of policies. The results of this section are consistent with Uyarra et al. and Hajatpour et al. studies (14,15).

In the third section of the research, it was found that the most motivating social responsibility dimensions in creating the desirable consequences of policy implementation were ethical and institutional dimensions. In the ethical dimension of social responsibility, the Universities of Medical Sciences, based on the principled development of a basis and respect for stakeholders, strives to maintain the level of its committed functions toward stakeholders and, in this way, considers justice as a basis for equality and balance. Therefore, the committed function against the stakeholders' interests will lead to an increased level of social trust and belief in moral accountability and social responsibility. This will increase citizens' satisfaction with receiving more university services. Moralization in the organizational environment and decision-making based on the existence of spirituality can be considered the basis for developing dynamic interaction with citizens and clients and promote the organization's position among the majority of citizens so that it will lead to an increased level of external commitment, i.e., citizens' commitment to goals and developing strategies more coherently. On the other hand, it was found that the institutional dimension of social responsibility of the Universities of Medical Sciences was another component in creating the desirable consequences of public policy implementation. This dimension, which is considered a legal acceptance dimension,

includes a range of interests of the minority of stakeholders to the compliance of the laws developed by the Universities of Medical Sciences. In extending the obtained result, it can be stated that this approach shows the level of adherence of the Universities of Medical Sciences to the rules and institutional requirements by institutions supervising the performance of the Universities of Medical Sciences. The results obtained in this section are consistent with Amos et al. and Arrigoni et al. studies (16,17).

Based on the obtained results, it was suggested that in addition to paying attention to the level of social responsibility in public policy implementation at the Universities of Medical Sciences, the results stemming from the evaluation of policy implementation should be clearly presented among citizens and clients in a realistic manner so that the level of approaches of company's social interaction with stakeholders is strengthened, thereby increasing the public legitimacy and acceptance of the implemented policies. Also, the focus on the moralistic and institutional dimensions by the Universities of Medical Sciences can change attitude and social behavior to create integration and balance at the level of citizens' expectations. The reason is that strengthening moralism at the level of functions of proper policy implementation based on social responsibility, one can expect the creation of balanced social values. These values will lead to paying further attention to the participation level of citizens and clients in focused programs and goals as committed more than ever.

Authors' contribution: The conception and design of the study were developed by

Sakineh Ashrafi (Ph.D. Student), Alireza Maetoofi (Corresponding Author), and Mojtaba Tabari (Advisor), Sakineh Ashrafi, Alireza Maetoofi acquired the data; Sakineh Ashrafi and Mojtaba Tabari analyzed and interpreted the data, and, Ali Farhadi wrote the first draft of the manuscript. All authors contributed to the manuscript editing, and read and approved the final manuscript.

Conflict of Interest: The authors declare that there is no conflict of interest.

Reference

1. Min S, Kim N, Lo C. CSR-enhancing factors for business vs public stakeholders: evidence from Hong Kong. Journal of Asia Business Studies. 2020;14(3):399-419. https://doi.org/10.1108/JABS-03-2018-0108

2. Nowruzi M, Danaifard H, Fanny H, Hassanzadeh AL. Theoretical processing of Social Responsibility based on the foundation's data theory. Improved management. 2014;26(8):10-16

3. Grandia J, Meehan J. Using procurement to reach desired outcomes in society. International Journal of Public Sector Management. 2017;30(4):302-309. https://doi.org/10.1108/IJPSM-03-2017-0066

4. Javier JR, Brumberg HL, Sanders L, Hannon TS, Shah S. How gaps in policy implementation cause public health malpractice. The Lancet. 2018 Jun 16;391(10138):2414.

5. Sanan NK. Impact of board characteristics on firm dividends: evidence from India. Corporate Governance: The international journal of business in society. 2019;19(6):1204-1215. https://doi.org/10.1108/CG-12-2018-0383

6. Ertan G. Collective action, civil society, and public policy in Turkey. Journal of comparative policy analysis: research and practice. 2020 Jan 2;22(1):66-81.

7. Sharafi, Shahin, Manzari Tavakoli, Alireza, Selajgeh, Sanjar. Investigating the relationship between related factors, with the implementation of virtual social network policies in Iran with respect to the mediating role of social responsibility. Social Sciences, 2019; 13 (1):179-204.

8. Scarano G. Alternative models of activation policies: the experience of public oriented services. International Journal of Sociology and Social Policy. 2020;40(3/4):382-408. https://doi.org/10.1108/IJSSP-01-2020-0011

9. Bruce V, Warren M. Progressive public administration and new public management in public sector accountancy. Meditari Accountancy Research. 2018;26(1):44-69.

10. Marotta G, Nazzaro C. Public goods production and value creation in wineries: a structural equation modelling. British Food Journal. 2020;122(5):1705-1724. https://doi.org/10.1108/BFJ-08-2019-0656

11. Uyarra E, Ribeiro B, Dale-Clough L. Exploring the normative turn in regional innovation policy: responsibility and the quest for public value. European Planning Studies. 2019 Dec 2;27(12):2359-75.

12. Watandoost, Babak, Amiri, Alinaghi, Emami, Seyed Mojtaba, Divandari, Tehrani. Understanding the key dimensions of public policy leadership: A conceptual framework for typology of different approaches. Strategic Management Thought (Management Thought). 2019 Sep 23;13 (2):205-33.

13. Hajatpour, Daneshfard, Karamollah, Amirnejad, Ghanbar, & Taban. Provide a model for evaluating public policies (after implementation) with a network governance approach (Case study: Social Security Organization). General Policy Making in Management, 8 (4 (consecutive 28 winter 2017)),13-25.

14. Uyarra E, Zabala-Iturriagagoitia JM, Flanagan K, Magro E. Public procurement, innovation and industrial policy: Rationales, roles, capabilities and implementation. Research Policy. 2020;49(1):103844.

15. Hajatpour, Sara, Daneshfard, Karamollah, Taban, Mohammad, Amirnejad, Ghanbar. Presenting a successful model for evaluating the general policies of the Social Security Organization based on professional ethics. Quarterly Journal of Ethical Research (Iranian Association of Islamic Education), 2019;37(10):111-128.

16. Amos GJ. Researching corporate social responsibility in developing-countries context: A systematic review of the literature. International Journal of Law and Management. 2018;60(2):284-310. https://doi.org/10.1108/IJLMA-04-2017-0093

17. Arrigoni A. Exploring the "relational" link between responsibility and social ontology: Ethical, organisational, institutional dimensions of shared agency, collective responsibility, collective intentionality. Journal of Global Responsibility. 2019;10 (1):31-46. DOI: https://doi.org/10.1108/JGR-10-2018-0047