



## Investigating the Effect of Hospital Management Accounting Role on Covid19 Crisis Control

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### Abstract

Applying management accounting knowledge in government-affiliated institutions such as hospitals is essential. Due to the pandemic of Covid-19 disease around the world, various dimensions of societies, from the health system to the economy, have been affected. In three ways, the disease can affect business, the workplace and industry, and consequently the economy of societies.

The Covid19 crisis shut down many companies and caused a recession. Obviously, managers cannot be prepared for all kinds of crises. However, if in crisis management as an integral part of their strategic management responsibility, the likelihood that their organizations will be in crisis is greatly reduced. It is important, to crisis management and its relationship to technical and operational planning. In recent years, the costs of the health services have increased dramatically; Over the past 30 years, the costs of health care services in the member states of the Organization for Economic Co-operation and Development (OECD) have tripled, and health care costs have become increasingly important.

The aim of this study is to investigate the impact of management accounting innovations during the global epidemic crisis. The required data were collected from the system of the Ministry of Health and Medical Education and the impact of various factors on organizing the crisis was analyzed.

The study looks at ways to manage the crisis in Covid 19 in the country and says that it helps to control the widespread and universal disease of Covid 19; Cultivation, education and accurate information and most importantly cost management with the help of management accounting knowledge.

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## 1. Introduction

**The crisis**, in fact, a great and special psychological-social pressure that breaks down the conventional notions of life and social reactions, and with the life and financial damage, threats, dangers, and new needs it creates. As a result, the crisis can be defined as: an accident that occurs naturally or by humans suddenly or increasingly, and imposes hardship and hardship on human society in such a way as to eliminate it. It requires basic and extraordinary measures(26).

### -The effects and characteristics of the crisis

In general, the effects and characteristics of the crisis can be classified into the following two sections:

- A. Global level
- B. National level

### -kinds of crises

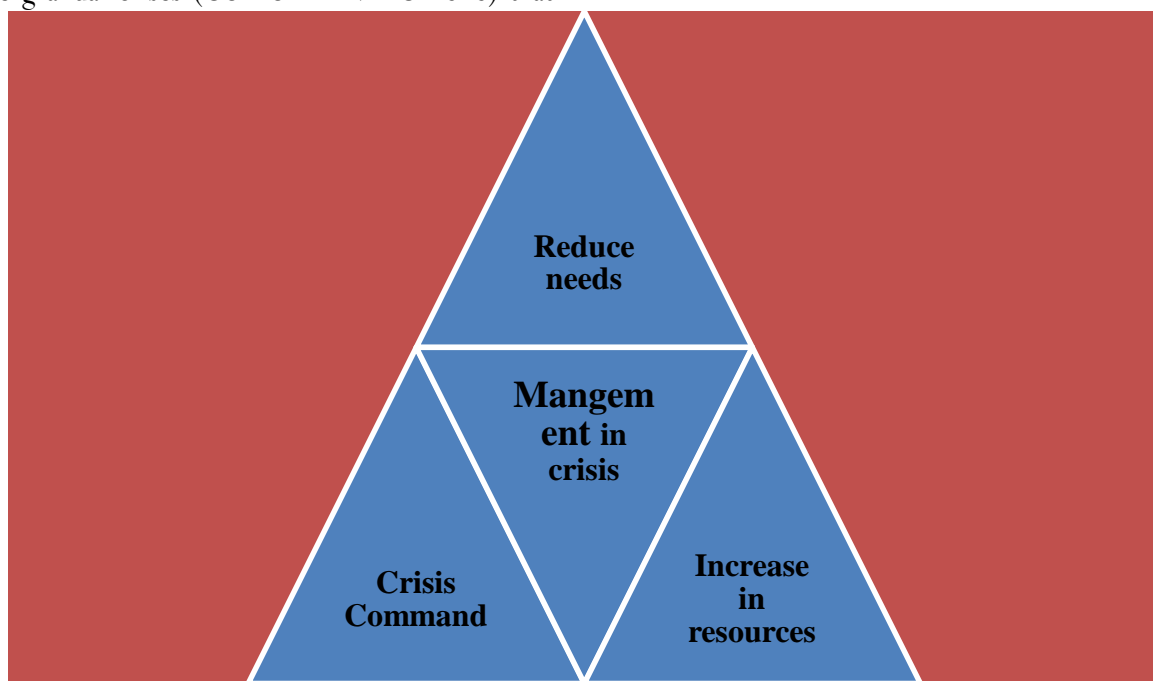
In order to identify and differentiate crises, it is better to categorize them and lay the groundwork for their separation. Classification of crises in terms of their suddenness or gradualness: Some crises occur suddenly and all at once, and have sudden effects on the internal and external environment of the organization. These crises are called abrupt crises. In the face of these crises, there are gradual crises (CUMULATIVE CRISES) that

start with a series of crisis issues and intensify over time and continue to a threshold level and then recur. Six key features can be used to compare sudden and gradual crises. Sudden crises occur quickly, have little predictability, their clarity is clear, are obvious, start with a specific one-time event, occur at a fixed time, and are inconsistent with one or a few aspects of the organization. They are obtained from environmental aspects. In comparison, gradual crises are gradual and cumulative, have a lot of predictability, are not clear, their starting point is from a threshold level, over time they are more likely to occur and the organization does not adapt. They are created with several aspects of the environment(6,19).

### Crisis management

The process of crisis prediction and prevention is called crisis management and post-crisis recovery, and is in fact a science that seeks to find tools that can be used by systematically observing and analyzing crises. Prevented the occurrence of crises, or in the event of its occurrence, reduced the effects of the necessary readiness for rapid relief and improvement of the situation(14).

Figure 1 shows a graph of how crisis management works.



Crisis management

### The role of management accounting in controlling the global epidemic crisis

Recent empirical research suggests that; management accounting needs to adapt to changing managers' needs in order to keep in touch with today's globalization. Management accounting innovations can be used as one of the solutions to be implemented in times of crisis.

Crisis is usually unpredictable. The past is full of infectious diseases and epidemics, which have had a profound effect on the changes in human civilized life and, with their sudden but long-term occurrence and spread, have brought about profound and sometimes complex changes in human societies (27).

With the increasing advances in management accounting, although a good management accounting system in itself does not guarantee the success of companies, a weak management accounting system can significantly reduce the advantages and competitive advantage of companies.. In addition, the use of management accounting tools provides accurate and relevant information that leads to more effective and accurate decisions by managers, decisions that can affect the performance of the organization. The fact of How organizations operate can be explored through their financial statements. The aim of this study is to investigate the impact of management accounting innovations during the global epidemic crisis. The required data were collected from the system of the Ministry of Health and Medical Education and the impact of various factors on organizing the crisis was analyzed. The Covide 19 virus crisis, which severely affected industrialized countries and spread to most developing countries, has also affected accounting and auditing. So that after the recent crisis, the countries involved came up with the idea of restructuring the accounting methods and the audit method. In the study of, Dianti Deilami et al. Concluded that the globalization of the dimensions of the crisis necessitated the adoption of global measures to counter it (7).

Pearson and Keller, in their study in 1998, argued that dealing with crises could make the decision-making process more difficult to manage (22).

Mengna et al. in their research in 2012, Found that the importance of using activity-based costing was very important during a crisis, and this could be effective in crisis management (18).

Managers use a variety of tools and techniques to make better decisions in managing organizations, especially in times of crisis. The most important of these tools is management accounting, which can help managers make decisions. Hajiha and Kharatzadeh, in 2014, pointed out the importance of using activity-based costing during the crisis, so innovation in the management accounting system is a crucial necessity in the management of modern organizations (11). Due to the increasing progress in all sciences, in the management of accounting, many advances have been made and caused the emergence of innovations in this science.

Due to the pandemic of Covid-19 disease around the world, various dimensions of societies, from the health system to the economy, have been affected. In three ways, the disease can affect business, the workplace and industry, and consequently the economy of societies. The Covid 19 crisis shut down many companies and caused a recession. In recent years, the costs of the health sector have increased dramatically; Over the past 30

years, the costs of health care services in the member states of the Organization for Economic Co-operation and Development (OECD) have tripled (21), and as a result, the cost of health care services has become very important (2). This significant increase in costs has led to a greater focus on the economy (4,5,17) and has been accompanied by a shift towards management accounting and an emphasis on labor control, cost control, budgeting, and various types of management control (12,15,16,23). The Ministry of Health, Treatment and Medical Education is one of the ministries that annually accounts for a significant amount of the country's total budget (1), reducing the ministry's expenditures to reduce government spending.

The Prevention-Web report shows that Iran has suffered an average of \$ 250 million a year in natural hazards over the six-year period 2005-2011. This direct economic damage for the 25-year period 1990-2014 is about \$ 15 billion. We must be to think seriously about how to organize, prepare the land and develop Iran in the future. Given that in the future, undoubtedly the largest population of Iran will be urban dwellers, how to develop cities in the future of Iran is very important and sensitive. The current trend in our country, due to the increasing exposure of the population to natural hazards, for various reasons increases the risk of natural disasters. Demographic changes in Iran indicate an increase in urban population and population concentration in larger cities. According to the World Bank, the population change in Iran from 1990 to 2015 shows that the population concentration in cities with a population of more than one million from 12 and a half million in 1369 has reached about 21 and a half million in 1395. However, the rate of increase of this population during a "decade" (in the first decade during the years 1369 to 1379) in large cities was about 3%, and this rate with the growth of the population of large cities "annually" over the years. 2010 is equal to 2016. This shows that the growth rate of the population of big cities has accelerated, especially in the last eight years. An important complication of this population decline is the increased vulnerability not only to natural disasters but also to viral epidemics such as Covid19. So that in the second week of announcing the outbreak of corona in our country, the city of Tehran has practically become the most important infected center for corona.

Since February 2017, when the first case of Covid 19 disease was identified in Iran, the total number of patients with 141,591 people has reached 7,564 and 111,176 patients with Qovid-19 have recovered from the hospital since the outbreak. Have been cleared. Meanwhile, some provinces, such as Khuzestan, are in a

red situation and the number of infected people is high. The first identified case of Quaid 19 disease in Khuzestan province was observed on March 24, 2017. The population of Khuzestan province is 4,711 according to the census. In this crisis, 8 hospitals and 4 corona diagnosis laboratories in Ahvaz city were dedicated to the treatment and diagnosis of patients with Covid 19, the number of patients with this disease in Khuzestan province was 13528, the number of recovered was 12076 and the number of victims was 530. Due to the increasing number of this disease in Khuzestan province, with proper management in various fields, including management accounting, important steps can be taken to control the disease.

In Khuzestan province; despite all the efforts of health officials, high prevalence of Covid 19 disease were seen, the texture and culture of this province are indigenous, a significant number of citizens easily violate the health protocols announced by the Corona headquarters, and the disease isn't very serious for some people. In the provinces with white status, social distance was well observed by the people and in addition, they provided desirable hospital facilities. Due to attracting services from donors, having full hospital equipment, creating several centers for rapid diagnosis of disease and increasing specific hospitals, Covid 19 still has a high prevalence in Khuzestan province and Ahvaz city, and Which are questions here: First, how do we control this crisis? And secondly, what measures or actions should be taken in terms of management and accounting management in order to lead and control the crisis of Covid 19?

Khuzestan province, with a population of about five million, consists of several ethnic groups, most of which have tribal backgrounds, including Arabs, Lors, and Qashqais. Adherence to customs is one of the most important factors in the cohesion of these tribes, although this commitment is very important from a social point of view, but it has ended as a factor in creating a high incidence of the disease, especially during holidays, mourning and ceremonies. The result has been a neglect of social distance. Quarantine and restriction of office and store activities is short-term and has caused a lot of economic losses, so we need to think of another way to reduce the financial burden and control the crisis.

Management accounting system is an important tool for improving performance in hospitals (10). This system is a flexible information system that is used to meet the management information needs and in line with management goals (9). For this purpose, the structure and content of the reports prepared by the management

accounting information system may be different from one organization to another (28).

Base of Ramzi's point of view, the hospital's accounting system should have the following three goals (25):

1. Improving the efficiency of hospital costs without reducing the quality of its services;
2. Help to hospital, to maximize resources through service line management;
3. Identify opportunities for continuous improvement in hospital operations.

In general, it can be said that financial and economic information is the main basis for most decisions in organizations, including hospitals (13).

It is important in the crisis of Covid 19 is the proper management of costs, many costs are incurred on the hospitals involved, and if the planned action is not taken, it will be more difficult to deal with the crisis of this disease. In recent years, the health services have accounted for a large part of the government's budget (8), so the attention of health care managers should be shifted to be able to manage the costs of this sector optimally. Do; Because the optimal allocation of limited organizational resources is one of the most important tasks of management (20-21), the solution to achieve this is to use management accounting techniques in health organizations. In fact, the hospital's information system provides the hospital manager with the ability to access the necessary information at any time and place and make decisions based on the actual information in his or her work environment (21). Therefore, due to the increase in costs in this crisis, as well as the existence of oppressive US sanctions, the need for management accounting techniques is felt more than ever, although in the health services, sufficient knowledge of management accounting techniques and its importance for these organizations exists. No, hospital managers who are the main decision makers in crises are the only ones to implement the directives and regulations announced by their superior organization; In this case, hospital managers do not pay much attention to the information within their organization and only seek to implement the directives, regardless of any information about their organization. As a result, they do not have sufficient knowledge of management accounting and do not make the necessary arrangements for the production and use of this information, so it is recommended to solve this problem by training and hiring hospital managers in the field of management accounting.

## References

- Amans, P.; Mazars-Chapelon, A.; and F. Villeseque-Dubus (2015). "Budgeting in Institutional Complexity: The Case of Performing Arts Organizations", *Management Accounting Research*, Vol. 27, pp. 47-66.
- Appelbaum, D.; Kogan, A.; Vasarhelyi M.; and Z. Yan (2017). "Impact of Business Analytics and Enterprise Systems on Managerial Accounting", *International Journal of Accounting Information Systems*, Vol. 25, pp. 29-44.
- Aptel, O. and H. Pourjalali (2001). "Improving Activities and Decreasing Costs of Logistics in Hospitals: A Comparison of U.S. and French Hospitals", *The International Journal of Accounting*, Vol. 36, No. 1, pp. 65-90.
- Ashton, T. (2001). "The Rocky Road to Health Reform: Some Lessons from New Zealand", *Australian Health Review*, Vol. 24, No. 1, pp. 151-156.
- Bates, K. and T. J. Brignall (1993) "Rationality, Politics and Healthcare Costing", *Financial Accountability & Management*, Vol. 9, No. 1, pp. 27-45
- Booth, Simon; "Crisis Management Strategy"; Routledge; 1993; P. 64.
- Dianti Deilami, Zahra, Alam Beigi, Amir and Barzegar, Morteza, 2016. Investigating the Relationship between the Use of Advanced Management Accounting Tools and Economic Value Added. *Journal of Management Accounting*, Issue, 50 pages.86 [in Persian].
- Fars News Agency(2015). News number: 13940604001341. Available at: [www.farsnews.com/news/text.php?nn=13940604001341](http://www.farsnews.com/news/text.php?nn=13940604001341).
- Hajiha, Zohreh, Kharatzadeh, Mohaddeseh, Rasaeian, Amir (2016). Investigating the Relationship between the Application of Management Accounting Innovation and Performance Evaluation Criteria in Companies Accepted in Tehran Stock Exchange. *Journal of Financial Accounting*, No. 22 in Persian].
- Hammad, S. A.; Jusoh, R.; and E. Y. Nee Oon (2010). "Management Accounting System for Hospitals: A Research Framework", *Industrial Management & Data System*, Vol. 110, No. 5, pp. 762-784.
- Hansen, D. R. and M. M. Mowen(2007). *Managerial Accounting*, 8<sup>th</sup> edition Mason: Thomson southwestern.
- Hood, C. (1995). "The 'New Public Management' in the 1980s: Variations on a Theme", *Accounting, Organizations and Society*, Vol. 20, Nos. 2 and 3, pp. 93-110.
- Imani Barandagh, M. (2014). "The Obligated Challenges for the Performance Audit in Government Agencies of Iran", *Journal of Health Accounting*, Vol. 3, No. 4, pp. 1-19. [In Persian].
- Jack Gates Chuck; *Crisis Management* (in the private and public sectors); Translated by Ali Parsaiyan; Termeh Publications; First Edition, Tehran; 1383; P. 6 [in Persian].
- Jackson, A. and I. Lapsley (2003). "The Diffusion of Accounting practices in the New 'Managerial' Public Sector", *The International Journal of Public Sector Management*, Vol. 16, No. 5, pp. 359-372.
- Lapsley, I. and E. Wright (2004). "The Diffusion of Management Accounting Innovations in the Public Sector: A Research Agenda", *Management Accounting Research*, Vol. 15, No. 3, pp. 355-374.
- Lowe, A. (2000). "The Construction of a Network at Health Waikato the 'Towards Clinical Budgeting' Project", *Accounting, Auditing & Accountability Journal*, Vol. 13, No. 1, pp. 84-114.
- Mangena, musa, tauringana, venancio, chamisa, eddie, (2012). corporate boards, ownership structure and firm performance in an environment of severe political and economic crisis. *british journal of management*, p:23.
- Mitroff, Ian I.; Paul Shrivastava; and Ferdaus E. Udwadia; "Effective Crisis Management"; *Academy of Management Executive Journal*; 1978; Vol. 1; P. 60.
- Moradi, M.; Rahimi, K.; and N. Ghodrati (2017). "Investigating the Factors Affecting the Effectiveness of Accounting Information System from the Viewpoint of Managers and Experts of Iranian Medical Sciences Universities Emphasizing the Role of Accrual Accounting", *Journal of Health Accounting*, Vol. 6, No. 1, pp. 111-130. [In Persian]
- Organisation for Economic Cooperation and Development (OECD). 2011). "Health: Spending Continues to Outpace Economic Growth in most OECD Countries", Available at: [http://www.oecd.org/newsroom/healthspending\\_continue\\_stout\\_pace\\_economic\\_growth\\_most\\_oecd\\_countries.htm](http://www.oecd.org/newsroom/healthspending_continue_stout_pace_economic_growth_most_oecd_countries.htm). [Online] [23 April 2015].
- Pearson, c.m. and clair, j.a. (1998). reframing crisis management. *academy of management review*, 23, 59 – 76.
- Pettersen, I. J. (2001). "Implementing Management Accounting Reforms in the Public Sector: The

- Difficult Journey from Intentions to Effects”, *The European Accounting Review*, Vol. 10, No. 3, pp. 561-581.
- Pettersen, I. J. (2004). “From Bookkeeping to Strategic Tools? A Discussion of the Reforms in the Nordic Hospital Sector”, *Management Accounting Research*, Vol. 15, No. 3, pp. 319-335.
- Ramsey, R. H. (1994). “Activity-Based Costing for Hospitals”, *Hospital and Health Services Administration*, Vol. 39, No. 3, pp. 385-96.
- Shoorvarzy, M. and M. Hedayat(2017). “Investigating the Effect Hospital Information System (HIS) on the Quality of Financial Reporting (A Study Case: Mashhad Bentolhoda Hospital)”, *Journal of Health Accounting*, Vol. 6, No. 1, pp. 44-67. [In Persian]
- Waymire , Gregory , basu , sudipta , (2011). economic crisis and accounting evolution. *emory law and economics research* , p.11 – 98 .
- Wijaya, R. E.; Ludigdo, U.; Baridwan Z.; and Y. W. Prihatiningtias (2015). “Paradigm Blurred: Opera Cake in Management Accounting Information Research”, *Procedia-Social and Behavioral Sciences*, Vol. 211, pp. 859-865.