



The Role of Information Systems in Decision-making and Public Policy Making

Majid Vahedi^{1*}, Hamid Arvand²

¹ Educational Department Payame Noor University

² Master of Public Administration Orientation of Information systems

ARTICLE INFO

Article history:

Received 10 Dec 2019

Received in revised form 05 Jan 2020

Accepted 16 Feb 2020

Keywords:

Information systems,

Decision-making,

Public policy,

Management,

ABSTRACT

Objective: The aim of this paper is to study the role of information systems in decision-making and public policy- making. For this purpose, the documentary attempts to review the literature and the study of books, articles, and publications, previous research and opinions of experts and professors while expressing concepts in relation to public policy and the role of information systems, information systems, and public policy decisions are examined. **Methodology:** The decision is to choose a solution from among different solutions to solve the problem. According to Herbert Simon, it is the major component of management and it can be considered synonymous with management. In fact, the decision can be defined how to act or move in a certain direction which is selected deliberately and consciously between various methods to achieve the desired goal. Organizations that in a successful manner can collect, categorize and evaluate internal and external information can outdo competitors. In the organization, the information will form the basis for understanding. **Results:** The results suggest that systems with influencing the quality, speed, and accuracy of data collected in the decision-making and affect the performance of government decision-making and public policy followed and adopted by the government agencies and public authorities. The more information systems are stronger and quicker and more accurate the more successful would be public administration to adopt policies in problem- solving. Finally, after concluding recommendations on how to use information systems is presented. **Conclusion:** According to what was said there is a relationship between information systems used by public authorities and efficiency and effectiveness of public policy. Information systems organizations can influence policy decisions made by government agencies and public authorities.

1. Introduction

Not only is the decision -making process in any organization is a vital aspect of the decision but also people to survive in a competitive business environment depends on a high level of this information.

Although in our country do not pay much attention to the role of information systems in decision-making but the importance of this system has been added increasingly which is used as a tool in decision-making.

Today, the role of information systems in decision-making regarding the scope of this system to improve decision-making and effectiveness of the organization is very broad.

Decisions to solve problems in the community is one of the most important decision-making processes that covers the public interest (Asgarzadeh, 2013). That is why it is very important to improve the process of policy.

One of the issues less addressed in this context is the role of information systems in decision-making and policy-making. In this article, we want to challenge this topic and with a systematic approach to discussing the role of information systems in public policy (Atash Pour, 2010)

* Corresponding author: Mjdvahedi@yahoo.com

DOI: <https://doi.org/10.24200/jmas.vol8iss02pp11-14>

2. Materials and methods

2.1 *The role of information systems in decision-making*

The decision is to choose a solution from among different solutions to solve the problem. According to Herbert Simon, it is the major component of management and it can be considered synonymous with management.

In fact, the decision can be defined how to act or move in a certain direction which is selected deliberately and consciously between various methods to achieve the desired goal.

Organizations that in a successful manner can collect, categorize and evaluate internal and external information can outdo competitors. In the organization, the information will form the basis for understanding (Chavan, 2009). Identifying ways and to choose one of them needs information and the ultimate goal of Information System are Preparation and submission of information to managers to help them make the decisions, So paying attention to the information systems is required and necessary (R. David, 2011).

England University Defines information systems as a tool by any person or organization by using technology, collects, stores and publishes information, Therefore, refers to the targeted use of information technology .

According to Kumar (2006), in order to define (MIS), it should basically be divided into three parts: Management, information, and systems.

Kumar to advance his ideas simply considers management as a process through which managers plan, organize, innovate and do the operational control of their business.

Inherently management can only exist where individuals and their staff are managed. Kumar also explains information generally refers to data analysis. In other words, data (business view) results are obtained by applying the rules, principles and approaches are analyzed by macroeconomic analysis.

Finally, Kumar said system, as a set of interconnected components, refers to a common goal (Ward and Peppard, 2002).

Naturally most business systems are composed of smaller systems and all play major roles to ensure the effectiveness of the bigger system Systems from one organization to another depending on the nature of organizational operations, organizational size and organizational priorities in conjunction with a number of other leading indicators are different. Based on the above definitions Management information systems refers to systems that are handled in order to ensure proper management of the business.

Comprehensive systems, are integrated computer-based, that provide relevant information to support managers in the organization. The more we move upward of the executive management level the more long-term planning, more macro information, the need for more corporate information and strategic decision making becomes more and more non-structural.

Information systems are responsible for functions such as collecting, processing, storing and analyzing data and information distribution. And make effective use of information technology in organizations and researchers are formed of the hardware, software, databases and communication networks.

Essentially all aspects of management information systems are implemented at the same time to ensure the overall efficiency of the entire system Failure in one part of a comprehensive is a defeat of the other part while all of them are designed for the independent role.

As a result, good management leads to good decisions in business information systems at the same time, poor management leads to poor decision making (Christensen, 2008).

This principle is the basis and foundation for the concept of this paper and seeks to analyze the role of information systems in decision -making.

The decision is part of the organization. That's because most operations in an organization on decisions taken come into circulation by the management and shareholders.

And in order that the decision is taken effectively it is essential that there would be a good information system. Organizations should ensure that have a good information system as a general observation, a good information system, and a system simultaneously ensures good decisions and bad decisions lead to bad decisions.

And managers should provide an environment that encourages growth and quality of information. Basically, without proper information systems, it will be very difficult for the organizations to make decisions.

That's because due to lack of approved information they will have to prepare baseless Information. In addition, typically management information system, founds a strong and solid structure to make hard decisions through systematic tools, timely information and appropriate management policies and regulations (Fathiyan and Fathi Nour, 2014) Always MIS is the key element in ensuring the company's recovery.

For example, in most cases, management information systems can easily be programmed by the owner to conduct specific actions at certain times.

In addition, management information system planning Save at great expense of time and resources for the owners, In other words, business managers can plan information systems in a manner that automatically to discover Defects and deficiencies and even to fix them. As a fundamental point, a good management information system application can now perform multiple tasks simultaneously.

The potential for multitasking performance increases in a company so that business operations can be run simultaneously.

Management Information System plays the role of registration and recording.

This refers to the maintenance of information in the available circumstances. Typically databases provide data recovery of next places (Niven, 2001). Basically, recording and management information system database tools and database tools are to create confidence that the decisions taken are stable while the business is going slowly.

Automated information systems have increased during recent years.

To a large extent, these automated systems substantially altered the decision-making process in a positive direction. Principles, strategies and practical methods in management information systems can be used wisely by economists for separating and sorting the good decisions than bad decisions.

After the screening, good decisions get encouraged while bad decisions are left with disappointment. Finally, information systems play a crucial role in providing a wide range of efficient options.

This will ensure that the choices of decision-makers have a positive output. This is the reason that many decision makers tend to use the tools of business

management information systems when choices are difficult (Nowduri, 2011)

3. Discussion and results

3.1 Public policy

Public policy is a decision that has been taken against a general problem it is a process that started since the problem was felt and ends to evaluate the implementation of the policy.

The Government in a general sense is a legal entity of public policy and acts through the laws, rules and regulations pertaining to public policy (Shokri Nooshnagh, 2008). Consists of a series of values that support government authorities and other decision-makers in society. In short, the principles that have been established by the competent authorities in the country And as a model and guide actions are necessary leadership in the community.

As a result of public policy and political decisions of public authorities regarding the allocation and distribution of resources and the public sector. The main role of government in the new world is "public policy". Public policies are General orientations that specify how to operate their organizations and public institutions in the future.

And usually emerge to deal with a problem and a public issue and to resolve it.

Overall policy-making process includes the following steps: 1: feeling the problem (diagnosis), 2. Perception of the problem (roots) 3-determining the measure of enumerating solutions 4- enumerating solutions 5. Assessment Solutions 6. Natural selection and decision-making (legalization) 7-evaluation and reform policy implementation (Alvani, 2012).

3.2 Information systems and public policy

The more information systems are stronger the more Information was also more accurate and more it becomes smaller because there are decisions during Policies. So IT is in a two-way relationship with policy.

Any individual decisions are in interaction with a corporate decision- making And the decisions and policies of the organization are in interaction with the environment and society. It is thus possible to simply explain the impact of information systems in public policy.

Information systems are involved at all stages of policy-making. Information systems provide oversight implementation requirements For example in the area of credit risk management it should be noted that if a state policy is to reduce corruption and to improve the efficiency of the banks it must invest in information systems as the main feed risk management is information.

Organizations for making Decisions and policies need accurate and adequate information (Sparks, 2001).

4. Conclusion

According to what was said there is a relationship between information systems used by public authorities and efficiency and effectiveness of public policy. Information systems organizations can influence policy decisions made by government agencies and public authorities.

Recommendations are suggested:

- 1-Government agencies should be responsible for monitoring information systems in order to prevent dire consequences of ignoring the rise.
- 2-The authorities must decide how to use the information that is appropriate to have different processes and adopt a strategy for the development of information systems.
- 3- Management information systems must operate with balanced and mutually dependent relationships and considering the staffs' respect
- 4- Institutions, decision-makers must find a new way to training in relation to their management information systems.
- 5- Managers should ensure the recruitment of professionals that are both able to run information systems and decision-making process as well

REFERENCES

- Asgarzadeh, M. 2013. The Role of Influential Groups in Public Policy Making, Culture and Behavior.
- Atash Pour, H. & Noorbakhsh, M. 2010. Organizations performance evaluation by balanced scores sample, Foolad journal, 2, 6-18.
- Chavan, M. 2009. The balanced scorecard a new challenge, Journal of management development, 28(5). 393-406.
- Christsen, D. 2008. The impact of Balanced Scorecard usage on organization performance, PhD Dissertation.
- Danaeefard, H. & Alvani, SM. 2012. State Management Issues, Scientific and Cultural Publishing Company, Tehran, Debuts , First Edition.
- David, F. 2011. Strategic Management : A Competitive Advantage Approach, Concepts & Cases , Francis Marion University Florence, South Carolina, Pearson Education , USA, Fifteenth Edition .
- Fathiyani, M. & Fathi Nour, SH. 2014. Fundamentals of Information Technology Management, University of Science and Technology, Tehran .
- Niven, P.R. 2001. Examining the Endurance of Balanced Scorecard, Journal if Cost Management, (May- June), 24-19.
- Nowduri, S. 2011. Management Information Systems and Business Decision Making, Journal of Management and Marketing Research, Bloomsburg University of Pennsylvania.
- Shokri Nooshnagh, M. 2008. Performance evaluation by Balanced Scorecard approach, Quality control monthly, 28, 45-54.
- Sparks, R. 2001. Balanced Scorecard: Putting Strategy into Action, Business and Industry Specialist, 10(5), 1-4.

Ward, J. & Peppard, J. 2002. Strategic Planning for Information Systems, John Wiley & Sons, New York, USA.

How to Cite this Article:

Vahedi M., Arvand H., The Role of Information Systems in Decision-making and Public Policy Making, Journal of Management and Accounting Studies 8(2) (2020) 11–14.