

## Performance Audit-Capability Model (PA-CM) for the Public Sector of Iran<sup>1</sup>

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Research Paper

### INTRODUCTION

Today, low efficiency and effectiveness, nonconformity of economic efficiency, and environmental problems are important challenges in Iran's public sector. Performance audit examines these challenges and components and is used as a key tool to improve the performance of the public and government sectors of countries.

The problem of the present research is that there is no suitable evolutionary model in Iran, which can describe a road map and evolutionary path for the development of performance auditing of the public sector in Iran to the highest level of professionalism to improve the processes to solve the aforementioned challenges. The purpose of the research is to analyze the subject literature to extract the basic elements of performance auditing with two process and content approaches to provide a suitable model for the public sector in Iran using the Capability Maturity Model Integration (CMMI).

### The Subject of the Research

The subject of the research is determining and validating the basic elements of performance auditing with an exploratory mixed method and

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then designing and testing the Performance Audit-Capability Model (PA - CM) for the public sector in Iran.

### **Theoretical Framework of the Research**

The development of performance auditing of the public sector to the highest level of professionalism, in the first step, requires the definition and determination of the basic elements of performance auditing with two process and content approaches. This subject is the result of reviewing the theoretical literature on performance auditing and other related subjects, which should be evaluated and validated by experts and specialists. The basic elements of performance auditing (process areas) are used to assess the level of capability of performance auditing activity of the public sector within the framework of the Capability Maturity Model Integration (CMMI).

The "Capability Maturity Model Integration (CMMI)" provides two different evolutionary paths, including capability and maturity, using levels that are usually designed in matrix formats. In the structure of the Capability Maturity Model Integration (special for services), two features "Level" and "Dimension/Element" are used. "Levels" are used to depict the evolutionary path, which shows the stages of evolution.

### **Research Methodology**

This research was conducted with a mixed exploratory method and in terms of nature and content based on the Delphi method and modeling. 100 performance and operational audit experts and specialists were selected as the research sample using the snowball method. To collect data, the methods of the library (with the combined techniques of resource review) and field studies were used. The data collection tool is a researcher-made questionnaire and research plan. To analyze the data, a combined analysis was used using coding and data conversion techniques and application software.

### **Research Findings**

The present research was implemented in three general steps. In the first step, using the method of library studies and using the combined techniques of resource review, a comprehensive framework including 7 factors and 127 dimensions as the basic elements of performance audit was extracted by exploratory method and then validated by the Delphi method in four steps and approved by the experts. Analyzing the results of the four Delphi steps indicates that on average, the experts considered all the key factors and dimensions to be very important, and there is a good consensus among the experts.

In the second step, using the validated basic elements (the result of the first step) as well as the general logic of the Capability Maturity Model Integration (CMMI), the Internal Audit - Capability Model (IA - CM), and other accepted models, the Capability Levels of the present research model are formed on five levels. Then, from the effect and influence (confluence) of the basic elements of performance audit on the Capability Levels, the Performance Audit - Capability Model (PA - CM) for the public sector in Iran was designed in the form of a multi-page matrix.

In the third step, by using the answers of experts and specialists (Delphi group) to the questions of the researcher - made a questionnaire about "the degree of appropriateness or inappropriateness of the existing situation" of each of the key factors and dimensions of the performance auditing (as components of the research model), respectively, the Maturity Level of the main key Dimensions, key Factors and the Performance Audit - Capability Model (PA - CM) for the public sector in Iran were determined in three steps as follows, and then the research model was validated and tested.

According to the comparison of the Performance Audit-Capability Model (PA-CM) for the public sector in Iran with other accepted audit models (at the level of model and elements), it can be said: among the elements of "The Process of Implementing Internal Audit Operations", "Personnel Management", "Professional Procedures", "Quality Assurance and Improvement Program" etc., as well as the Maturity Levels of Internal Audit Capability Model (IA - CM) for the public sector (IIAs, 2009 & 2012 and Renzberg and Coetzee, 2014) and Development of an Internal Audit Maturity Model (Yazdaniyan, 2016), has similarities with the Maturity Levels and key Dimensions of the Performance Audit - Capability Model (PA - CM) for the public sector in Iran.

## **Conclusion**

According to the above findings, the general conclusion is:

- 1) Most of the basic elements presented in this research can be observed scattered in the standards and guidelines of performance and operational and internal audits of international and regional organizations of the Supreme Audit Institutions (SAIs) and reputable scientific research, but the elements of the present research model have more coherence and comprehensiveness.
- 2) In developing the Performance Audit-Capability Model (PA-CM) for the public sector in Iran, the Capability Maturity Model Integration (CMMI) has been used, which is widely accepted worldwide and is highly desirable.

3) The model of the present research is a road map and evolutionary path, and its purpose is to develop performance auditing to the highest level of professionalism to improve processes.

**Keyword:** Basic Elements of Performance Auditing, Capability Maturity Model Integration (CMMI), Public Sector, Delphi Method.

**JEL Classification:** M42, C68.

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