Financial and Transactional Bylaw of Universities and Faculties of Medical Sciences: Opportunities and Threats

Masoud Abolhallaje1  Peivand Bastani2,3  *Maryam Ramezanian1,3

1-Health Management and Economics Research Center, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran.
2-School of Health Management and Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran.
3-Member of Health Systems Research Center, Kerman University of Medical Sciences, Kerman, Iran.

*ramzanian2000@yahoo.com

Abstract

**Background and purpose**: According to developments related to the relative autonomy of universities and acquired extensive powers by the board of trustees of universities of medical sciences and healthcare services in a twenty-year perspective of country and in the context of the fourth and fifth socio-economic cultural development of country, necessity of developing financial and transactional bylaw of universities of medical sciences has become increasingly clear throughout country.

**Materials and Methods**: Grounded theory is the qualitative methodology used for this study in order to identify the threats and opportunities of new financial tax bylaw of universities and faculties of medical sciences and through the study of documents, surveys of experts and beneficiaries and elites by Delphi method.

**Results**: Releasing potential of public administration in order to control sources and uses, increasing management confidence in documented decision making, establishing organizational concentration on controlling costs, providing conditions of decision-making according to financial reports, independency in firing and hiring manpower by adopting specific provisions and creating independency in method of keeping accounts are among the most important opportunities. While poor organizational structure, lack of knowledge and skills in the existing structure, mental processes caused by reactions and incompatibility of staff, lack of criteria and rules in selection appointment and dismissal of managers and employees, lack of discipline and proper mechanisms in order to pursue the purposes, calculating financial burden and human resources required and finally, passing through traditional thinking and management system are among the most threats.

**Conclusion**: Considering the mentioned threats and opportunities, financial and transactional bylaw of universities and faculties of medical sciences was basically revised and modified in January 2006, and then after the case reform in July 2009 it was announced in October 2011.


**Key words**: Financial and Transactional Bylaw, Establishing Board of Trustees Act, Grounded Theory, Delphi
1. Introduction

Laws and regulations help users to take principled decisions because lack of respect to rules despite observing all budgetary and accounting principles and standards can be associated with complications such as obligation of responding to regulatory authorities (1). In this regard, universities of medical sciences were required to observe the Act of establishing the board of trustees of universities and institutions of higher education and research according to approved meetings 181 and 189 of Supreme Cultural Revolution Council on March 13th, 1989. In proviso "T" article 7 of this bylaw cited approval of financial and transactional bylaws as one of the duties and authorities of board of trustees' member, which is applicable based on the case after approval from the Ministry of Health and Medical Education (2). Also universities of medical sciences and higher education and research institutions of ministry of health and medical education in terms of their financial and transactional regulations are required to observe the law of how to do financial and transactional affairs of universities and higher education institutions approved on January 8th, 1991 by Islamic Consultative Assembly and by the Guardian Council in a meeting on January 16th, 1991 (3). In its Article 10, it was pointed out that since the beginning of 1991 state public audit act and state deals bylaws except Article 21 are not applicable on universities of medical sciences and higher education and research institutions of ministry of health and medical education. According to Article 9 of this law, it has been mentioned: "executive bylaws of how to do financial and transactional affairs of universities and higher education institutions in terms of need to be proposed by the board of trustees of the relevant institutions and co-approval of ministers of culture and higher education and health and medical education would be applicable." The first financial and transactional bylaw of universities of medical sciences had 94 articles and 38 wavers in 7 chapters including overview, budget and income, payments and expenditures, transactions, account planning and monitoring, property and different affairs. It was proposed in the sixth and seventh meetings of the board of trustees and approved by ministry of health and medical education in July 10th, 1995 (4). In the twenty-year perspective of the country and according to developments related to the relative autonomy of universities and acquired extensive powers by the board of trustees of universities of medical sciences, which is the basis of setting general policies of four five-year plans and determines the general orientation state activities in different dimensions. Thus, in the context of the fourth (Articles 49, 88, 138 and 144) and the fifth socioeconomic cultural development plan (Articles 32 and 38), which specifically has noted the implementation of operational budget in the entire government body and hence calculating the cost of services, the need to reform financial and transactional bylaw of universities of medical sciences across the country becomes more clear in order to properly manage the financial resources of this large section with multiple and scattered centers providing healthcare.
services and medical education around the country (5). Therefore, according to the necessity of applying the corrected, applicable and appropriate version of the bylaw, this study aimed to identify the main opportunities and threats of financial and transactional bylaw of universities and faculties of medical sciences across the country.

2. Materials and Methods
The qualitative approach was chosen for this study since the identification of opportunities and threats associated with financial and transactional bylaw of medical sciences of the country could not be fully described using quantitative methods and also due to the following reasons:

1- Lack of appropriate and robust literature on the subject studied (6-7);
2- The need to observe the interaction details, examining all relevant aspects in the specific research environment, detailed description and analysis of the quality of human experience.

Grounded theory is the qualitative methodology used for this study in order to identify the threats and opportunities of new financial tax bylaw of universities and faculties of medical sciences and through the study of documents, surveys of experts, beneficiaries and elites by Delphi method.

Grounded theory is a research approach that by using a series of systematic data collection methods helps to develop theory through inductive method. During the research process, the researcher interprets data analytically and analyzes qualitative data through a dynamic and systematic approach (8). In fact, a characteristic of grounded theory is constant comparative analysis in collecting and analyzing data. This type of analysis combines constant comparative analysis and data coding method, and leads to classes or categories, properties, and assumptions about the general problem (9).

Delphi method used in this study is also considered as a classic or traditional Delphi type. This type of Delphi method has five characteristics as follows: anonymity, iteration, controlled feedback, statistical group response and stability in the responses. Among those with different specialties entering specific issues, participants in this type of Delphi technique have various specialties and provide different views to achieve a stable decision (10).
To conduct the Delphi technique in this study, a procedure was used as shown below:

**Forming implementation team and supervising Delphi**

- Modern systems experts
- Budget experts
- Financial experts

**Adjusting interview protocol**
(First round)

**Editing Protocol and disambiguating**

**Interviews**

**Analyzing**

**Adjusting interview protocol**
(Second round)

**Interviews and analyzing interviews**

Sequenced to ensure stability and consensus in responses
The most important point in this process is to understand the purpose of the Delphi method by participants in the interviews. In the absence of proper understanding, we would face irrelevant responses from the participants. In addition, respondents must have sufficient knowledge on respective field and be familiar with the literature of the issue discussed, but at the same time there may not be need for expertise in the field discussed (11). There is no full agreement among experts on the number of participants in each round of the Delphi and it mostly depends on the research objectives. In each round of the Delphi in this study, 10 people participated. In each round, all the recorded interviews were carefully implemented on the paper and after being typed and reviewed by the researchers were given to the interviewees to ensure the accuracy of the data. Although most qualitative data are analyzed through content analysis method, it can be said that there are qualitative analysis strategies as much as qualitative researchers (12). Qualitative data from the interviews in this study have been analyzed using latent content analysis, which is discussed in data analysis section. In this study using latent content analysis, the issues associated with threats and opportunities were identified, coded, and classified. In fact, latent content analysis is the process of identifying, coding and classifying qualitative data. In this type of analysis the researcher usually searches a special meaning within the context of all the data (13). Finally, using the above process and after two rounds of Delphi, there was a consensus between the responses and thus after achieving the saturation level, interview process was stopped.

3. Results
The results of two rounds of Delphi are summarized in four main axes of the need to reform the bylaws, the opportunities of the new bylaw, the existing limitations and threats of the bylaw and recommendations to achieve the statutory objectives, which are discussed as follows:

The need to reform the bylaw: Embedding an integrated financial system even independent of each academic area in order to transfer data is always of particular complexity. Although in different departments it is used as different independent islands, finally considering the lack of access to performance information on financial affairs the financial management relies more on data analysis through information and statistical analysis compared to professional accounting standards. In the past, financial performance of the organization was examined only through monitoring devices, but it is necessary in large organizations such as ministries or universities of medical sciences to perform auditing independently due to various reasons: First, the external parties of hospital or health care centers such as insurance companies, lenders, and regulators always have various and growing demands. The authorities are required to take responsibilities to these cases. Secondly, board of trustees or organizational leaders would be more ensured about the integrity of financial reports and internal controls, and finance
committee would emphasize financial planning, formulating policies, and decision makings. Thirdly, board of trustees or first level authorities would rely on this committee and its role as an effective control and the board of trustees then can have greater confidence in decision and policy making independently relying on the performance results of the audit committee. The lack of transparency of some definitions in the relevant bylaws and rules leading to different interpretations of the rules do not make feasible to failure formulate and adopt organizational and employment administrative bylaws of operational budgeting and providing service costs. Today, healthcare section particularly hospitals are institutions with no independence in investment are only responsible for compensation of costs. However, it is hoped that in the future citing the related legal articles and in line with achieving the fourth and fifth socio-economic cultural development plans they change into firms with independence in investment. This makes it possible to use financial markets for healthcare sector especially a large number of hospitals, while it is currently financed only by source of insurance and general government budget. Regulating financial, administrative, recruitment, organizational bylaws and the relevant regulations, developing cost accounting outlines of each activity, coding the outlines, preparing software programs, launching a comprehensive accounting system, clarifying the bylaws and preventing different perceptions can be helpful in achieving these prerequisites.

Because the state not only should govern the country well, but also should lead the country toward more dynamics and evolution in the world competitive environment in a modern way and tantamount with progressive world. Obviously, performing the mentioned issues requires time, training, creation of new terminology in sector and also conceptual design of universities. In financial fields it is necessary to deregulate so that tools and opportunities for making decisions would be established in all levels, it would be possible to extract service cost in not too distant future, and hence it is possible to access standard financial information for public financial administrators. Whereas in the past, information was provided so that only fulfilled requirements of Ministry of Economy and Finance and Accounting Office. This means that professional financial management in governmental agencies (other than public companies) was not practically possible. One of the most urgent measures was to develop and review financial and transactional bylaw. However, regarding that there were also some unchangeable conditions in developing it including: the minister is always the highest responsible authority, it is not possible to eliminate treasury process (executive branch), the Supreme Audit Court (legislature), inspection of the entire country (the judiciary), and supervising the council, it is not possible to remove responding ministry to regulatory authorities and executive agencies. Also, monitoring governmental issues (health care) is necessary.
The opportunities of the new bylaw:

In developing financial and transactional bylaw of universities of medical sciences, an attempt was done to consider releasing public administration potential in order to control sources and uses, increased management confidence in documented decision making, creating an organizational concentration on controlling costs, providing decision making conditions according to financial reports, independency in firing and hiring manpower by adopting specific provisions, and creating independency in method of keeping accounts. According to the study, among the opportunities of new financial and transactional bylaw are the gradual shift of accounting system in universities and faculties of medical sciences from cash accounting system to accrual one, creating a proper process to calculate activity cost, an auditor elected by the board of trustees in universities, different financial administrative employment bylaws, appointment of university financial managers and financial managers' recognition of all the issues with the university and its interaction with regulatory agencies. With this thought designing financial and transactional bylaw of universities of medical sciences was considered based on a large holding and in the new neural network of university financial affairs the department operates under the supervision of head of the institute. Faculties, hospitals, network system, and research centers operate under board administrator the departments and for each of these separate financial managers are introduced that are responsible for preparing the financial statements. Finally, consolidated financial statement is prepared by board administrator of financial affairs (who operates under the supervision of support assistant), is provided for the head of the institute, board of directors, and the independent auditor, and becomes the basis for board of directors' evaluation and audit hearing. The final information is sent from board of directors and auditor to board of trustees of the faculty. Since 2005 by implementing the fourth and fifth economic development plan and other financial and transactional rules, and changes in the financial system of universities such as removing accountant as a representative of the ministry of economic affairs, finance and replacing financial manager, reinforcing the role of auditor in a more serious form in financial and transactional bylaw of universities of medical services were proposed, and it is taken to provide conditions so that preparing the financial statements includes balance sheet, deficit statement / additions, changes statements in financial condition). They should be placed in universities and faculties of medical sciences agenda and financial statements of universities and faculties should be compared together. As mentioned before, one of the opportunities in the bylaw is the presence of a financial director with special conditions who is responsible for preparing financial statements of units and establishment of internal control systems, Rial value control and assets, estimation of service costs, proposed tariffs and payment
methods, resource consumption control and costs, preparation of management accounting reports, identifying potential sources in the unit and making them efficient, preparation of cash flow and identifying working capital deficit. Another opportunity of the bylaw is the presence of auditor with responsibility for commenting on the balance of university accounts in the years before changes and in long-term commenting on financial statements, detailed budgetary control of universities, making decisions on institution's financial statements approved with respect to the audit report, registration and maintenance of all financial operations of the institute including funds, assets, liabilities, expenses and financial obligations toward others and the institute based on conventional methods of accounting, financial supervision on the expenditure of the institution and the relevant units, control regulations, registration fees and daily financial operations in legal offices, relevant accounts and the reflection of those cases based on those commitments, extra credit or non-compliance with the audit report. Also, during investigating the accounts and after reviewing the report of Chief Financial Officer, the auditor of the agency should comment explicitly in his report and inform the board of trustees about the issue. Prerequisites and opportunities in the new bylaw include training and employing finance and accounting professionals, implementation comprehensive accounting software, identification of assets accounts (property, machinery and equipment, inventory, notes receivable, state property right), lack of distribution of profits and build up, creating independence in financial operations in units (faculty, hospital, network), modification of annual accounts, preparation of coding, and accounting instructions.

**The existing limitations and threats of the bylaw:** There were some restrictions in developing new financial and transactional bylaw including board of trustees' rule and the rule of how to do financial and transactional affairs that needed to be modified, the composition of board of trustees and its ceremonial form was not clear, the relationship of board of trustees with university president and the ministry was not defined, the governing role of healthcare and reporting style of the agency operations (financial and operational) were neither determined, and the board of trustees faced sever time limits to use the opportunities timely. The threats include poor organizational structure, lack of sufficient knowledge and skills in the existing structure, mental processes caused by reactions and incompatibility of staff, lack of criteria and rules in selection appointment and dismissal of managers and employees, lack of discipline and proper mechanisms in order to pursue the purposes, calculating financial burden and human resources required, and passing through traditional thinking and management system. By implementing logic of holding system in universities of medical sciences currently financial and transactional rules of universities and higher education centers, board of trustees rule, budget and planning rules, and other rules have made the status of universities of medical sciences highly
complex given limitations of classification of accounts and financial and administrative workflow has been associated with a sharp decline. Given that the financial system in terms of financial forms and account maintenance flows have been affected by government accounting system and weaknesses in internal controls have made the healthcare sector, especially the receipt of incomes encounter potential sources, maybe a proposed solution to manage universities and independent units could be in form of a firm or board of trustees' implementation. In order to achieve the objectives of the fourth and fifth socio-economic and cultural development plan, it requires an expert group to study before implementing any mechanized plan. Also it is necessary to implement and design an alternative to the manual circulation of financial operations in order to implement a disciplined system, and its focused implementation prevents from dispersion of procedures in the existing systems of financial affairs in different universities. On the other hand, it is necessary to prepare a new compilation for universities considering the above issues.

Recommendations to achieve the statutory objectives: In line with achieving the objectives of financial and transactional bylaws of universities of medical sciences, there should be quick changes in the current bylaw without legal conflicting and internal control requirements in university should be provided through the presence of a financial director and the relevant financial system. Independent auditor (natural or legal person who is invited to work from outside) should be defined in organizational chart of universities of medical sciences detailing the specific tasks. Technical, financial reports (balance sheet, change statements on financial condition, the deficit / excess) for middle and senior managers use within the organization and outside the organization internal controls (warehouses, petty cash, property ...) and maintaining supervision role of Ministry of Health and Medical Education predicting potential future changes in the financial structure of the university should be done in order to provide the condition to derive service cost. Preparing relevant bylaws including property bylaw in order to do calculations in Rial and with bind to auditing preparation and application and accounting guideline with ongoing training and coordination of economic forces in medical science universities and with the aim of establishing financial uniformity in university should also be considered.

4. Discussion
According to obtained changes in financial operation, circulation of institutions standard financial statements are required to be prepared in order to prepare universities to implement the changes resulting from cash accounting to accrual accounting and governmental accounting to financial personnel and also weaknesses of financial experts in a unit in a financial period as a base year, and its results should become the base for financial operations' registration in next year. Following the identification of fixed assets, inventory of goods, capital, and other permanent and temporary accounts are essential, and it is necessary to prepare the
audit program independently and be communicated to universities in order to ensure uniformity of academic audits. By implementing logic of holding system in universities of medical sciences currently financial and transactional rules of universities and higher education centers, board of trustees rule, budget and planning rules, and other rules have made the status of universities of medical sciences highly complex given limitations of classification of accounts. Given that financial system in terms of financial forms and that most healthcare institutions are lacking auditor and since auditing in public unit of healthcare has no significant history, which is only summarized in Article 7 of the board of trustees' rule of medical sciences universities, then it is natural that most of the staff and students of this unit have no adequate information on this issue. Basically, accrual accounting is not considered in its current form that is also true in public hospitals. However, due to concentrated nature of hospital, defined tasks, resources and specific purposes and identified products in an independent organization are better facilities to improve financial processes and even optimum conditions can be provided by amending the laws. However, with the current situation can also design financial systems with a specific price; this is one of the basic problems of the unit. Since in the case of determining the specific price of hospital services, it is possible to reform the healthcare tariffs, and it can modify the cash flows in hospitals, as well as improving financial relations between the hospital and insurance organizations. In the long term, it leads to cost management and productivity in system, and middle or senior managers can make more cost-effective decisions with less error rate. Achieving long-term goals is not possible without inter-sector and cross-sector cooperation at universities and faculties of medical sciences and also assistance of other organizations, including the Supreme Audit Court, the Ministry of Economic Affairs and Finance, Accounting Office, General Inspection Office, certified public accountants and other regulatory agencies to facilitate the related current affairs, and it requires follow-up in order to obtain legal levers from origins of relevant policies to apply new policies and strategies in order to autonomy of academic financial operations and changes in financial procedures. In this regard, financial and transactional bylaw of universities and faculties of medical sciences was basically revised and modified in January 2006, and then after the case reform in July 2009 it was announced in October 2011. Obviously, this can be a unique opportunity for universities and higher education institutions, but it should be considered that in this regard, universities have a heavy responsibility and any disregard to them can have unwanted consequences. The role of the board of trustees is very important. It seems that the current structure does not fulfill the requirements of universities of medical sciences. In this context, training courses should be hold for employees and managers. Problem resolving, continuous assessment and support, restructuring the organization financial and educational structure, developing standard system, and assessing skills and capacity of universities.
should be included in agenda for universities of medical sciences and healthcare services.

Acknowledgments
Authors would thank all the budget and financial experts that participated in all Delphi rounds during the present study.

References
1. Abohhallaj, M. Budget and financial concepts for non-financial managers and experts of public sector emphasizing on the health sector, 2000
2. The law of forming the board of trustees of universities and institutions of higher education and research adopted on 13th March, 1989. Available from: http://vpb.um.ac.ir
3. The law of how to do financial and transactional affairs of universities and higher education institutions approved on January 8th, 1991. Available from: http://vpb.um.ac.ir