Chapter 10

Associativism of Accounting Professionals

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Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.68711

Abstract

This chapter aims to discuss the role of professional accounting associations and orders in relation to the current context of accounting training. It is intended, with this, to broaden the discussion about the performance of these professional entities, since they are placed as of public interest. Its work with the universities, aiming to interfere in the training process of future professionals, whether by the application of evidence of access to the profession or by direct and indirect influence in the construction of the curricular contents intended to form the accountants, must be thought openly and free of ideological load. Thus, it is considered important to analyze the aspects of the relationship between universities and such class entities, in order to know if there is a disinterested relationship or if, on the contrary, the university is influenced by professional accounting associations and orders, in percussion of their selfish interests.

Keywords: professions, accounting, associations and professional orders, universities, accountants

1. Introduction

Studies on the role of professional associations in the field of democratic ideals are anchored in the thesis that professional associations are seen as one of the components of individual freedom through associative demands and one of the possible and democratic solutions to dealing with the administration of social complexity and the power of the state. In this environment, the premises of associativism, according to Luchman [1], in the context of democracy and individual freedoms, are not restricted to the meeting of individuals of the same trade, work, or profession.

Associations and professional orders and universities are public interest entities, and according to Freidson [2], both, together with the state, sustain professional power from three pillars: autonomy, monopoly of knowledge, and credentialism. Its activities have an emphasis on controlling the assets of physical and legal entities. Historically, the earliest associations of accounting professionals have emerged in Scotland in the 1770s. These associations are seen as the forerunners of the rise of accounting in Europe and later in America.

In turn, universities are entities that provide abstract knowledge and certify the technical skills that lead the individual to professional status [3]. Thus, in view of the autonomy envisaged which composes the concept of the university, the performance of professional accounting associations and orders, in order to interfere in the specific contents of the training of future accountants, as well as in the formulation and application of the tests of access to the professional category, is presented as a topic to be investigated. In view of this, in this chapter we will address the following dimensions underlying the theme:

- History of the first associations;
- Accounting profession and associative organization in the world;
- Access to the accounting profession in Brazil;
- Influences on the curricular contents that certify the accountants.

According to Berg and Lune [4], Bhattacherjee [5], and Beuren [6], this study, without social sciences context, is classified as exploratory and descriptive, qualitative, and bibliographic.

2. Theoretical framework

The professional associations, according to Abbott [7], are important social actors, seen through their leadership at a given moment, unleash a set of actions to improve the positioning of the profession in a given social and economic environment. Moreover, according to Willmott [8], although it is voluntary in nature, political bodies with purposes aimed at defining, organizing, securing, and representing the interests of its members, including through the construction of barriers to entry into its sphere of action, from the concession of the state.

Each of the professions has its own particular occupational culture, its founding heroes, and its own dialect, as well as myths and collective rituals of specific cultural resource which holds the monopoly that is attested by the possession of academic credentials, which, according to Diniz [9], operate as a rule of social exclusion, separating professionals from nonprofessionals.

2.1. Professional associations

Before the Industrial Revolution, the professional associations already performing their role, through activities equivalent to the Corporations of the Office. However, it was concluded in the Middle Ages—in the face of the supply of free labor from the countryside, due to the

http://dx.doi.org/10.5772/intechopen.68711

agricultural revolution and the weakening of feudal power—which was designed in contours of companies [10]. These and other circumstances have resulted in the growth of commerce and cities. Thus,in order to understand creation andits development, there is a need to connect these organizations and their influences not only in the context of capitalist and industrial society but also in their participation in regulating the social and economic life of the modern state.

In general, the maintenance of the first associations took place in a similar way to what is happening today: by collecting monthly or annual membership fees. In the structural aspect, they were organized under an established hierarchy, in which the masters occupied the highest positions and the associates, as apprentices, had to rise positions, improving their learning.

Although it is a widely accepted and recognized civil organization in today's society, it is still difficult to get a precise definition of the term "association." According to Luchman [1], it is difficult to establish, against the multiplicity of associative practices, a set of general characteristics that can determine some distinctions without running the risk of falling into reductions or simplifications. Such difficulty is present in the different theoretical currents and based on the interpretations about the importance of associations for life in society, but, although permeated by differences, notions about the concept of association are more or less common that resulted in no growth of trade and cities.

In this context, Luchman [1] rescues the influence of Tocqueville for the sedimentation of the modern conception, because of his vision of secondary associations, different from the primitive bonds.[1] In this perspective, the sense of association involves, to a large extent, the types of associative bonds that are fruit of personal choices but with weaker ties when compared to family associations. In practice, the existence and performance of a professional association are necessary components for the formalization of a particular profession, since it controls the rules of professional conduct through ethical and deontological codes, something that Durkheim [12] has already highlighted as an important link to establish the relationship of men to work and the community [13, 14].

If, on the other hand, there is a group of researchers who seek to find, definitively, the best definition of the term profession. Using even sophisticated terms for this, on the other, there is the view of authors, such as Brante [15], who proposed to abandon the proposed solutions in the last four decades. Brante [15] has focused his studies on one aspect that he considers as a basic problem, and that is behind many others: a simple definition of professions presupposes that these are based on their professional practice in greater systematized and often scientific knowledge. In an opposing view, Saks [16] understands that professions are constituted by their social power and by how they exclude, from a legal basis, individuals who do not hold the required knowledge.

Svensson and Evetts [17] share the view of Brante [15], regarding the relevance in maintaining the line that separates professions and occupations. When questioning the respective traditions,

[1]Cooley [11], in his work *Human Nature and Social Order*—1902, is attributed to the identification of the three types of associations, based on the nature and degree of the ties. Thus, family and friends are primary associations; the secondary ones—such as civic and religious associations and service clubs—are geared toward the collective; and the tertiary ones would be the interest groups and professionals, with a same specific proposal, but anonymous among themselves.

they seek to reposition the debate centered on the definition of the term profession and the efforts of conceptualization and relativization based on space-time references, in the incorporation of the most recent transformations of professional work and the organizational dimensions of its exercise, which delimit new theoretical and methodological questions and empirical manifestations, tributary to the convergence of such traditions.

It should also be noted that in the context of sociology and functionalist theory of professions, professional associations are placed as an important mechanism for protection and maintenance of professions, since they guarantee occupational control, autonomy, and regulation. However, Angelim [18] observes that in the context of professionalism, the professional association is created by the state and now represents the state policy. In the interactionist theory, professional associations are defined in the same way as Higher Education Institutions (HEIs), as institutions for the protection of diplomas, licenses, and mandates [3]. In this way, associations of this nature are intermediary institutions between the state and professionals and between them and the public, which participate in the game of rhetoric or speeches, aiming at public recognition and legal protection.

Historically, many of the professional associations founded on the European continent were able to exercise their effective power in the first half of the twentieth century. Many of them, whose constitution had been inspired by associations created according to the Italian fascist ideology, ended up in crisis, at the end of World War II, along with the victory of the democracies. If, on the one hand, the European institutions of social solidarity were able to find ground with an already existing mentality of historical origin, in other countries, such as Brazil, professional associations had the task of creating a psychological basis, through education, resulting in adaptations in the form of a corporatist model of its own, capable of sustaining the then anti-individualist tendency.

In particular, professional accounting associations and orders have different functions, among which are the access to the profession, the control and supervision of the activities of its affiliates, the promotion of research, and the advancement of science that involves the respective training. In the current context of professional associations, the position of Noordegraaf [19] stands out and moves the debate to a new direction, since it highlights connections between professional logics and external organizations, during the professional training processes. According to Muzio and Kirkpatrick [20], such pressures are forcing professional associations to seek new forms of reconstruction and classification, so that their behaviors become more organizational, including the possibility of a hybrid professionalism, combined with management principles.

Initially focused on the control of personal assets, the activity of the first accountants, in the modern history of mankind, brought accounting science to the organizations' environment, becoming essential to the management processes. Following the historical logic of meeting professionals in associations to defend their interests, early accountants also walked the path.

2.2. The accounting profession: brief history

The use of irrigation techniques by primitive people resulted in the emergence of surplus agricultural products. As a consequence of this new process, a part of the population began to

http://dx.doi.org/10.5772/intechopen.68711

be used in processes of commerce and manufacturing, marking the beginning of the urbanization period. Buesa [21] states that at the beginning of the cycle of urbanization, a ruling class emerged, which was enriched by the exploitation of labor, the collection of taxes and military, and the political and religious control. Considered as the science that controls the patrimony of entities and whose origin is as old as man, until the eighteenth century, accounting theories were practically the same as those considered in the pioneering work of Luca Pacioli: a printed book, dealing with arithmetic and containing only a treatise, composed of 36 chapters, on the accounting part, the distinction IX, treaty XI, Tractarus de computis et scripturis, dealing with the process of double matches.

Based on this treatise, presented by Pacioli, the main legacies for accounting emerged, among them the definition of inventory and guidelines of how to carry out the records; the organization of accounting entries in the memoriale (book in which transactions were recorded as they occurred), the giornale (diary book) and the book (reason book), and the authentication of these books as a means to avoid fraudulent records; the recording of expenses and revenues and a proposal on the financial result to be prepared at the end of the year; the confrontation between the entries of reason and the diary; and the system of double matches, among others, evidencing, first, the debtor and then the creditor.

The first complete record of a double entry bookkeeping system is from the Renaissance period, with the location of the City of Genoa in Italy. In addition to proposing a close connection with mathematics, Frei Pacioli's book *Summa de arithmetica, geometria, proportioni et proportionalitá* included a section on the double-start system and presented the reasoning that was based on accounting entries [22]. Following a process of shifting economic development from continental Europe to England, resulting from its pioneering process of industrialization, new needs linked to the controls in the entities are presented, which promoted the consolidation of the Anglo-Saxon model [8]. Similar to what occurred in Continental Europe, Italy was the cradle of accounting innovation during the long period when its city-states had a strong influence on the economy. England and later the USA are the influential territories for the development of contemporary accounting.

There is also the understanding that the origins of accounting professionals, as a component of corporate governance, are related to the creation of corporations and the legal requirement of auditing, which has led to the growth of accounting as a profession [22, 23]. Such growth, even if it has occurred differently in different countries, has brought about significant changes: it was the modern dimension of accounting. This dimension of modernity was the accounting response to the increase in information needs, resulting from the vast socioeconomic change, initially in the coal exploration business and later in the oil rush [24]. Later, the creation of technologies provoked the evolution of information quality and its influence on economic mediation, leaving behind the legacy inherited from the medieval past. This evolution occurred due to the flexibility and high degree of abstraction of the accounting, fundamental to inform about the diverse activities of the organizations, the scope, and complexity of the business.

In this environment of economic growth, leaving behind the old form of management and bookkeeping, a new demand for society of the time arises: the need for people with knowledge, skills, and qualifications to control wealth [25]. Therefore, it was natural for a space of action to emerge from those who held knowledge in accounting, leading to the creation of the profession. In such a scenario, the accounting profession was built on the contributions of individuals and then considered leaders, something important in the delimitation of jurisdictional boundaries, in professional organization, and in claims of legitimacy.

There is a perception, in the historical context that the emergence of the accounting profession has a close connection with the end of the restrictions that prevented the creation of corporate societies. Although there was a significant need for a capital in the period of the Industrial Revolution and in the early nineteenth century, legal impediments restricted the formation of limited liability companies, inhibiting the formation of these capitals, as well as the growth of the accounting profession [23].

On the other hand, in the period of much of the nineteenth and twentieth centuries, many countries were involved in military conflicts or economic disputes, often resulting from capitalist and ideological expansion and resistance to such expansions. At the time these restrictions were withdrawn, the field for accountants, as well as for the consolidation of the profession, was open.

2.3. First professional accountant associations

The formation of the first professional organizations, initially in Edinburgh and later in Glasgow, Scotland, though pioneering, did not originate from a desire of the accountants to elevate their status, to gain new privileges, or to promote monopolies [26]. What actually happened was a mobilization of these already prestigious professionals against the challenges of powerful London-based trading groups. In addition, class organization as an association served to raise awareness of the group and consolidates its identity, during ideological confrontations with hostile parties, such as the powerful mercantile groups.

In the early stages of the organization of the accounting profession, private sector institutes were responsible in Britain, and although they have been recognized by royal charters, they have not been formally regulated by the British state [23]. Unlike Britain in France, the regulation of professional accountants and auditors was divided between the *Ordre des Experts-Comptables* and the *Compagnie Nationale des Commissaires aux Comptes*,[2] both bodies being under strict state regulation. It is also necessary to reflect on the inclusion of the figure of the state as an ally of the professions, since it occurred by its authority to grant and impose monopolies or arrangements restrictive to the professions. Thus, according to Sudaby and Viale [27], professional projects, in addition to the support they seek from the state, so that they can initiate legal procedures and transform an occupation into a profession, bring with them institutionalization projects.

According to Willmott [8], the emergence of the modern state was an important condition for the development and organization of accounting practice. However, studies carried out in the context of the professions have neglected this practice or consider it as a neutral

[2]Accountants and statutory auditors, respectively.

influence. At other times, this role is perceived as relevant, at the moment it intervenes, limiting the autonomy of professions, and, traditionally, accountants have used the state to promote their interests, including in the expansion of their prerogatives and market closure, as in professionalization As auditors Ballas [28], as an example, the case of Greece between the years 1940 and 1950, where the state began the auditors' professionalization project, using audit as an instrument of economic and political control, as well as being a device for legitimizing the government itself.

Another point that deserves attention is the interference of the state in the regulatory processes, since accounting has not been regulated in the same way in different countries. One reason for such differences lies in the legal system, which differs internationally because there are two systems identified in the developed world: Code Law and the Common Law.

As for the Code Law, it is based on Roman Civil Law, which advocates intrinsically, with the government acting as regulator of all facts, and acts determined in the current legislation [29], and the Common Law tradition originates in medieval England, and it is a more diversified legal code, going back to the codifications of the nineteenth century. In its origin are customs and analysis of customary law, there is a process of creating laws in general, but the application of laws in specific cases, activities, or segments. Such a difference between the two systems lies in the particularity that company law or commercial codes establish in the form of detailed rules for accounting and financial reporting in Ref. [29]. With this, the nature of regulation and the rules of each country can be affected by the system, because where Common Law prevails, the development of the profession took place under a title, such as the *Certified Public Accountant* (CPA).

In relation to the Code Law countries, the accounting profession is dominated by state standards, and accounting and auditing have been developed as distinct professions with different designations. On the other hand, given the historical or cultural influences, it is possible to observe some exceptions, such as the Japan, Greece, and Bulgaria, where professional orders have acted to simplify the profession, in addition to reducing the number of titles, without success in such attempts.

Even if, at present, differences and similarities are observed in the attributions and the performance of the entity representative of accounting professionals, their origin is the same, from the first accountant societies, constituted from the 1500s in Europe.

2.3.1. Scotland and England: birthplace of professional accountants' associations

Although there is a mention of a society of accountants formed in the year 1581 in Venice, the greatest impetus to the profession occurred, according to Hendriksen and Breda [22], concomitant to the beginning of the Industrial Revolution, when the requirement of accounting specialists increased considerably. Scotland is presented as the country where the first professional associations were constituted, since the Edinburgh Municipal Directory for the year 1773 referred to the performance of seven accountants. Later, as early as the early nineteenth century, there were less than 50 public accountants registered and operating in the major cities of England and Scotland [22]. It was from a legal authorization, issued in 1854, allowing practitioners to present themselves as "authorized accountants," which established a society of accountants located in Edinburgh. Other local associations were then formed, culminating in the approval by Queen Victoria in 1880 of the Institute of Certified Accountants of England and Wales [25].

These professional associations of Scotland were the forerunners of the professional rise of the class, in the late nineteenth century, and beyond the Society of Accountants in Edinburgh (SAE), 1853; the Institute of Accountants and Actuaries in Glasgow (IAAG), from 1854; and the Society of Accountants in Aberdeen (SAA), 1866, can be taken as the earliest examples of associative control in Scottish accounting. To a certain extent, the formation of these associations was an attitude in response to the challenge of power and authority of Scottish public accountants in providing services related to the Court of Justice. The creation of the SAA, however, was related to local economic reasons, such as the railways and the banking sector, and after the formation of these three entities, its members faced challenges from competing organizations, concerned with the monopoly of the profession [25]. Despite the differences, the three associations joined forces to defend the professional status of accountants, including joint examinations, a review of national members, and professional registration.

The early organization of accountants in Scotland is explained by Walker [30] as a consequence of the Scottish legal separatist system, the rise of industrial society, and the attempt to achieve social closure and collective mobility. Vocational training in Edinburgh and Glasgow in 1853 was an organizational response to the activities of a powerful group of London merchants, whose demands for law reform emerged from the dominant economic philosophy of Victorian Britain. Such proposals ultimately threatened the interests of Scottish accountants but resulted in greater linkage between professional organizations in Scotland and England.

Another important milestone in the professionalization of accountants in Scotland occurred in 1854, when they came to hold the monopoly of accounting practice, through the sole acquisition of credentials as CA[3] [31]. At the time, the monopoly was challenged as being contrary to social and political philosophy and by employing a critical analysis of professional secrecy, which shows that it has assumed a functionalist interpretation of the role of the professions in society, receiving protection and help from superior resources, by their links with other professions and even by political circumstances. After the founding of the accountant associations in Scotland, similar formations emerged in England and Wales at the end of the nineteenth century [25]. As in Scotland, there were public accountants working in England and Wales, even though they were not linked to any professional associations [25, 32]. However, in line with Scotland, national legislation on the professional services of the Public Accountants of England and Wales created the need for a formally constituted group to establish associative control.

Since that time, the accounting profession already allowed to glimpse certain nuances in relation to the social context. Having its origin in trade practices, from the period beginning in the

[3]*Charter*. Term which is based on the designation "Chartered" of its associates, designation of professional prestige. In Scotland the Edinburgh charter, dating from 1854, gave rise to the designation of Chartered Accountant (CA) and then adopted in the royal diploma which in 1880 recognized in the Institute of Chartered Accountants in England and Wales (ICAEW).

http://dx.doi.org/10.5772/intechopen.68711

1870s, accounting in England and Wales leaves behind its poorly defined commercial occupation, becoming a profession established and recognized in the society [33]. At the same time that the accounting science extended its prestige and recognition, the occupation of secretary was losing importance and being identified like feminine function. At the end of the professionalization process, around 1930, the accountant had the recognition of being a function directed to the male professionals.

Currently, the associations that bring together accounting professionals in Britain, according to Altintas and Yilmaz [29], are Institute of Chartered Accountants in England and Wales (ICAEW), Institute of Chartered Accountants of Scotland (ICAS), Association of Chartered Certified Accountants (ACCA), Chartered Institute of Management Accountants (CIMA), Chartered Institute of Public Finance and Accountancy (CIPFA), Association of International Accountants (AIA), and Association of Accounting Technicians (AAT). Each has its own accreditation system and does not act in a joint and coordinated manner, but is under the supervision of the Accounting Organizations Advisory Committee (CCAB) [34]. Thus, the accounting standards are edited by a board, called Statement of Standard Accounting Practice (SSAP), and approved by professional bodies.

This pioneering role served as a model for other countries in Europe and also for the USA. In the European context, merchants' accounting had as one of the objectives to demonstrate the real value of debts, and an example of this is in France, where the French Commercial Code brings such a requirement since its implementation in 1673.

2.3.2. Accounting associations in France and Germany

The German school of accounting, together with the French school, is somewhat like classic examples of the Continental European model, as opposed to the Anglo-Saxon model. Regarding the legal and regulatory environment, the German Commercial Code in 1861, inspired by the French model and the corporate and tax legislation, is the backbone in accounting standardization. Still, according to Niyama [34] on the secondary level, there is the accountant profession and the stock exchange. The French Commercial Code is often cited in classical literature as the first document, in the world, to establish regulations for commercial activity. A determination, contained in that document, required traders who had double bookkeeping to prepare their balance sheets correctly for proper protection of creditors. The evolution of the accounting profession in France is based on the legal requirements for the appointment of various types of inspectors and auditors, ranging from inspectors, to syndics, to censeurs, and finally to commissaires [23].

Unlike the USA and Great Britain, accounting firms in France do not develop or enact accounting standards, and the accounting profession is represented by two entities:

- The Order of Account Specialists (Accountants): perform the accreditation of the profession and act under the jurisdiction of the Ministry of Economy and Finance. It was legitimized by the government in 1945, with the purpose of defending the honor and independence of the accounting profession.

- The National Commission of Independent Auditors (Auditors): they have the function of producing audit standards, revising the code of ethics and issuing technical guidelines. It is overseen by the Ministry of Justice, and, since 1966, auditing is mandatory for companies that fall into parameters, such as sales volume, total assets, and the number of functions.

To enter the profession, the classical career of the French accountant begins with an examination called baccalaureate, which grants the diploma of II Cycle. Obtaining this diploma, the aspiring professional can enter an accounting preparatory course, lasting up to 2 years. At the end of the course, he/she must carry out, together with the professional body, a series of written tests, with subjects, such as Tax Law, Mathematics, Accounting, and Informatics. The approval entitles the Preparatory Diploma of Accounting and Financial Studies (DPECF).

In order to be able to start the activities of general accountant and to obtain the maximum title of the profession (expert-comptable), the candidate undergoes a practical internship of 3 years in an audit firm, besides performing written tests and oral and thesis defense. At this point, you should already be affiliated with the bodies that regulate the profession, such as Ordre des Experts-Comptables [23, 35]. Therefore, they are around 10 years of study, and it is a difficult and time-consuming process but with a solid academic and practical background.

The birth of accounting in Germany came close to the 1900s, originating in business and trade schools (Wirtschaftshochschule, Handelshochschulen) and viewed as part of the discipline in business economics [35]. Six business schools were set up in Germany, Austria, and Switzerland: Leipzig, Aachen, St. Gallen, Vienna in 1898, Frankfurt and Köln in 1901, following the initiative of the companies and Chambers of Commerce. Others were founded in Berlin (1906), Mannhein (1908), and Munchen (1910), all created as a result of the Industrial Revolution, which brought changes to accounting, notably in terms of concepts, such as costs and depreciation.

Corporate law, as referred to by Altintas and Yilmaz [29], seems to have been the most influential factor on accounting in Germany, in view of the codified and prescriptive legal system adopted, as opposed to Anglo-American law. In addition to Germany, France, Greece, and Belgium restrict the creation of professional associations for accountants operating in the public domain. Evans and Honold [36] also share the view that German accounting, in its regulatory context, is a profession of lesser influence and much younger than in the case of Anglo-American countries, with strong state performance in professional development.

Like France, German legislation is based on legal codes, the so-called legalistic approach to accounting. In addition, the development of accounting principles and the editing of accounting standards in Germany are not influenced as strongly as in the USA and Great Britain. In addition, the role of the state differs greatly from that of the UK, with German professionals more likely to look at government and its regulation [36].

In the professional aspect, there are two categories in action in Germany. The first one is equivalent to Certified Public Accountant, which requires the approval of a professional qualification examination, through a university degree in finance, accounting, law, economics, and proof of minimum experience of 4–5 years for proper accreditation. The second one is as

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a category of licensed inspector and considered lower level, whose performance allows auditing small and medium enterprises. Both are legally authorized to perform audit work and act as members of the Board of Certified Auditors, which is the official German official body under the Ministry of Economy.

Just as in France, entry into the accounting profession in Germany is difficult because of the relevant degrees of knowledge required of the candidate. It is enough to remember that in the year 1931, the German government had already introduced the audit requirement for companies [35]. In addition, in France, 5 years of experience are required before the start of the examinations, in total of seven, in addition to the oral examination in front of an eight-member teacher's seat.

2.3.3. Profession and professional associations in Italy

In Italy, the influences of company law (Civil Code) and tax regulations in accounting are similar to those of a number of other Continental European countries, especially France, Belgium, and Spain. In view of the absence of an accounting standard setting body in Italy, accounting standards are set by the Civil Code. In the case of Italian-listed companies, these were subject to additional regulation, mainly by the CONSOB (*Commissione Nazionale per le Società e la Borsa*), which is an equivalent organ of the US SEC [29].

It should be noted that the regulation of the accounting profession in Italy was completely reformulated by Legislative Decree No. 1 39, June 2005. Since then, the accounting profession is subject to the general supervision of the Ministry of Justice. According to the new legal provisions, the accounting profession in Italy has two levels, which differ in relation to the scope and nature of professional activities: *Dottore Commercialista* and *Esperti Contabili*—Statutory Auditor and Accountant [37]. In the legal aspect, both levels have the requirement of a university degree, although with different periods of duration, which proposes a close link between the academic and the professional path. Still, the professionals who held the title of Ragioneri and Perito Commercial, on the occasion of the legal amendment of 2007, now have the registration of Ragioneri Commercialista, in the same professional group to which Dottore Commercialista belongs.

Regarding access to the profession, to obtain professional registration as Commercialist Dottore, candidates must obtain a 5-year diploma in Economic Sciences and Business Administration or in Economic Sciences [37]. There is also the requirement of practical experience, with a period of 18 months, with a registered profession. After obtaining the academic degree and the conclusion of the practice period, the candidate is able to take the state exam. Students of the 5-year university course are allowed to start the internship as of the fourth year of study. This training is carried out under the supervision of a Commercialist Dottore or an Esperti Contabili who have been registered for at least 5 years. This course, after graduation, aims to provide all theoretical and practical knowledge, as well as support the skills needed for the activity.

In relation to the state examination, the so-called proof of access to the professional category, for Commercialist Dottore, involves two stages: three written tests and one oral test.

The first written test covers the following subjects: general and applied accounting, technical banking, commercial and industrial auditing, financial management, and financial calculations. The second written test includes the following contents: Private Law, Commercial Law, Bankruptcy Law, Tax Law, Labor Law, and Social Security and Civil Procedural Law.

In addition, in relation to the application of the examinations to Italian professionals, universities have the competence to apply them graduates, being the responsibility of the Ministry of Justice when it is a matter for auditors. The same happens in their management, where the tests happen twice a year [37]. Given the set of requirements for access to the accounting profession in Italy, both in the academic context and the requirement of practice prior to the exams, the content of these, involving several areas, implies that one must be well prepared to obtain approval.

2.3.4. Regulation and accounting association in Portugal

Still in the European continent, accounting regulation in Portugal followed the model already adopted in France, where the CNC has an administrative and financial liaison with the Ministry of Finance, with the power to develop accounting standards, which are issued as decrees or decrees-laws. From this perspective, accounting in Portugal had its development closely linked to the state, an aspect that restricted the autonomy of the profession [38], and its beginning is linked to the Board of Trade, the Royal Decree of September 1755, and the Account of the Institution of the Class of Commerce, in 1779, both on the initiative of the Marquis of Pombal.

The Class of Commerce had the main objective to teach the Italian method of double matches to the children of the Portuguese merchants. This was the first establishment of the kind created officially in Portugal and aimed at professional education [39]. The Class of Commerce was a subordinate to the Board of Trade and was considered the first professional technical education course of accounting officially created in the world. According to Lira [40], the first teacher was I. Nancenti, a businessman who was ruined after the earthquake of 1755; the second teacher was an Italian named Avondano.

In the Portuguese accounting associative context, the association of the professional accounting class began in 1885, with the foundation of the Portuguese Accounting Association. Later, in 1894, the Association of Employees in Accounting was created, which, in 1900, was renamed the Institute of the Commercial Class of Lisbon [41]. When it was constituted, this accounting association organized a group, composed of associates able to work in higher accounting positions.

Carqueja [41] highlighted the founding of the Portuguese Accounting Society in 1945 and was legally recognized in 1946. For the author, Portuguese professionals owe this professional association representation and participation in international meetings and associations. In addition, some points had a negative impact on the accounting evolution in Portugal: the long period of validity of the Portuguese Commercial Code, instituted in 1833 and the period between 1928 and 1974 [38]. At that time, members of the associations could even elect their leader, but the elected person had his name approved by the Secretary of State for Corporations, and the unions depended on the Institute of Labor and Social Security.

In addition, journals published by associations could not circulate without the consent of the Secretary of State for Corporations.

In 1999, with Decree-Law No. 452, the Association of Chartered Accountants receives the name of the Chamber of Chartered Accountants. Then, at the beginning of 2000, the Code of Ethics enters into force, as a logical necessity to impose behavioral rules on all professionals, completing the requirements that define a regulated profession. To access the register as Certified Accountant (CA) —and to be a member of the Order of Certified Accountants (OCA)—the main requirements are to have the necessary academic qualification for enrollment, carry out a professional internship, and professional examination. Regarding academic qualification (undergraduate or higher), this must be obtained in one of the areas of Accounting, Management, Economics, Finance, Public Administration, or related, besides obtaining competences in nuclear and complementary areas.

In view of the trajectory of the accounting profession in Portugal, Caria and Rodrigues [38] observe that Portuguese professionals had little influence in the process of normalization through the representatives of the order in the CNC, something that is presented as a general characteristic of the European community, and in the continental model in addition to Portugal, Belgium, France, and Spain, they had a common legacy of tax reporting systems.

2.3.5. The Japanese model of the profession and accounting associativism

Japan is part of the group of countries that adopt the Code Law legal system, in which there is a high degree of detail of the rules that must be fulfilled. Similar to Germany and France, the Japanese system has less flexibility in structuring the financial statements, in addition to greater concern with creditors.

According to Niyama [34], until the end of World War II, Japan's economy was under the control of industrial and commercial conglomerates, known as zaibatsu, which often included banks. At the end of the American occupation, at the end of the conflict, the zaibatsus lost political power, notably by the implantation of antimonopoly law, signed in 1946.

Even though the USA tried to establish Securities and Exchange Commission (SEC) in Japan in 1948, it was dissolved in 1953, transferred under the Ministry of Finance, and encouraged the strengthening of the accounting profession through the Japan Institute of Certified Public Accountants, such initiatives have not been successful. Historically, Japan has brought from Europe many of the accounting laws implemented in the country, mainly Germany, as is the case of the Commercial Code, published in 1899, but with later revisions [29]. Thus, the Japanese accounting system was influenced by both Germany and the USA, but the government still exerts strong control over numerous activities, which results in high bureaucracy in business, the environment where accounting is embedded. In the history of Japanese associativism, the creation of the first class association dates back to 1927, and today the Japanese accounting profession originates from the Certified Public Accountants Act, enacted in 1948, aimed at ensuring the quality of accounting professionals at higher levels and in the USA and UK [34]. As a result of this law, the Japanese Institute of Certified Public Accountants (JICPA) [42] was established in 1949, currently the leading professional accounting organization in Japan.

In the professional trajectory, the path to becoming a Japanese CPA goes through academic training at the university level, in Accounting and Finance, Management Accounting, Auditing, or Business Law. Once this requirement is met, the next step is to pass the CPA exam, which is conducted by the *Certified Public Accountants and Auditing Oversight Board*, twice a year and in the Japanese language only. Upon successful completion, the applicant enters into a professional education program in accounting and a practical experience program; the requirement of which is the 3-year professional education program and program content provided by JICPA itself. In general terms, the curriculum that qualifies future accounting professionals in Japan is aligned with the requirements of the *International Accounting Education Standards* issued by the *International Federation of Accountants Board of International Standards of Education*. Completing the professional education program, the candidate will be able to perform the final tests, applied annually.

With regard to the practical experience required to obtain the CPA certificate in Japan, it covers the 2-year period, which can be done before or after the legal examination [42]. Complying with these requirements, the professional is able to obtain the registration as CPA, being able to carry out its activities and present itself as such in a public way. Therefore, it is a long training and with in-depth knowledge, but it results in a solid and rewarding career.

2.3.6. Development of the profession and associations in the USA

The development of accounting in the USA can be seen in line with the economic progress of the country, primarily due to the expansion of railways, which has boosted other activities and led to the emergence of large empires composed of refineries, oil pipelines, distribution stations, and other activities which accompanied the railway boom. As highlighted by Niyama [34], accounting issues involving depreciation, costs, dividends, and investments require conceptually sound solutions to investors.

In the context of the professionalization of accountants, it has been supported by strong associations, with accounting features from the UK, including the professional associative model [23]. Particularly, the evolution of accounting in the USA, as a profession in origin in the private sector, presents education and admission requirements, disciplinary practices, professional standards, auditing, and ethics. From the presence of accountancy professionals in the USA, from the UK, the associative movement in the USA did not remain unaware of the initiative of Scottish emigrants. According to Carqueja [41], the designation of *Certified Public Accountant* (CPA) originated in Law in 1896, in the state of New York, and then was adapted to the other states of the union, which resulted in the qualification that the CPAs had their prestige recognized.

Accounting associations in the USA began in 1887, when the American Association of Public Accountants (AAPA) was created and is now an American Institute of Certified Public Accountants [22]. At its foundation, the AAPA had the *Journal of Accountancy* as its official body, and its founders were in the number of 10, insignificant number before the thousands of members that it has at the present time. Although pioneering, the AAPA was not the only association of accountants in the USA. At the time, numerous independent state associations had been created by the country, aiming at the legal recognition of its members. This professional recognition as a CPA, obtained in 1896 by the professionals of the State of New York, entitled individuals to be called Certified Public Accountants (CPAs). To achieve such a degree, there was a need to obtain a certificate from the state university directors.

In the following decades, other states passed similar laws, and until 1922 all American states had such laws in place. However, divergences persisted because in state legislations it was possible to be a CPA without being a member of the AAPA and it was also possible to belong to the AAPA without being a CPA, which resulted in conflict because it was a matter of the states' rights [22, 29]. In addition, practitioners were concerned about the dominance of the New York State Association, which led to the reorganization of the AAPA in 1917, becoming an American Institute of Accountants (AIA), when educational requirements for admission were established, even though possession of a CPA certificate was not yet required.

The lack of mandatory certification as a CPA eventually led to dissent in 1921 with the formation of the American Society of Certified Public Accountants (ASCPA), and the only criterion for admission as a member was the possession of a certificate issued by the states. As observed by Hendriksen and Breda [22], during the next 15 years, ASCPA and AIA, after competing for the representation of the US accountants, opted for the merger, keeping the name of the institute and requiring a valid certificate—of being a registered public accountant. Those who want to become a Certified Public Accountant (CPA) in the USA need to initially do a set of tests called the Uniform CPA Examination, with a high level of requirement and difficulty.

The purpose of this examination is to protect the public interest in order to ensure that only qualified candidates become licensed as the US Certified Public Accountants [43]. Despite the degree of difficulty, approval in this examination alone is not enough to meet the requirements in obtaining certification, since they vary from one jurisdiction to another. In the most classical form, the CPA candidate must have completed a college undergraduate course, have a master's degree (MS or MBA), or a doctorate degree (PhD) [44].

In addition to the requirements for accounting content, the IES where the candidate has a baccalaureate degree must be registered in one of the six accredited educational institutions (US Regional Institutional Accreditation Agencies). There is also a need to pass the ethics exam and prove a minimum number of years of work experience in addition to the candidate obtaining a Social Security Number. This requirement is valid, even if the applicant is not a US citizen nor has he/she been working or residing in one of the jurisdictions.

2.3.7. Accounting association and accountancy profession in Brazil: Portuguese roots

In the period corresponding to the first 50 years after the discovery and Portuguese colonization in Brazil, there is no record of political, economic, or social activities. Through the failure of the hereditary captaincy system, the Portuguese government decided to take over directly the control of its colony and installed, in the year 1548, the system of general government. Regarding the history of the accounting profession in Brazil, as well as what happened in Portugal, the creation of the Aula do Comércio, based on the supervision of the Lisbon Commerce Board, is considered an important milestone, and its prediction is contained in Article XVI of the Statutes of the Board of Trade, established in Lisbon, approved by the decree of December 1756 [45].

In relation to the first higher courses in Brazil, these were created in 1808, upon the arrival of the Portuguese court. Despite the existence of these higher courses, the first university was only instituted in 1920, which is already in the period of the republic. It is perceived that it occurred somewhat late, compared with the Spanish-speaking countries, as was the case of Santo Domingo (1538), Mexico, Peru, Chile, and Argentina. Although it obtained its political independence in 1822, Brazil remained economically submissive to the European nations, with the permanence of the same colonial structure, based on slave labor, in contradiction to the rapidly expanding world capitalist system [45]. In the history of the Brazilian accounting profession, it was in 1945, when the commercial education reform was completed, that Decree No. 7988, formalized the creation of two higher courses: Economic Sciences and Accounting and Actuarial Sciences.

Concerning the associativism of the accounting profession, although the first movement with similar characteristics to that occurred in Europe and the USA has occurred in 1869, when the Court Bookkeepers Association was founded, the creation of the professional order, in the form of the Federal Accounting Council, occurred only in May 1946, when the country was already a republic. Since its inception, the Federal Accounting Council, as a professional order of accountants, besides supervising the exercise of the profession, was active in the regulation of accounting principles, in continuing education programs and in the edition of accounting standards of a technical and professional nature. There was also no application of the entrance exams to the professional category, which only occurred in 2010, in the form of the Examination of Sufficiency, which is compulsory for all postgraduate graduates of Accounting Sciences who wish to practice the profession counter.

In addition, higher education legislation in Brazil, regulated by the Ministry of Education, provides that Higher Education Institutions in the country, which offer a higher degree in Accounting Sciences, must follow the rule set forth in Resolution No. 10/2004, regarding the body of knowledge that makes up the future accountant. Regarding the training aspect, the future Brazilian accountants graduated by the Higher Education Institutions (HEIs), in periods ranging from 4–6 years, with the requirement, of practical internships and the application of knowledge tests, as part of the associations and professional orders, in order to guarantee access and professional practice.

In practice, the influences on the training of accountants in Brazil, mainly after the requirement of the examination of access to the professional category in 2010, considerably reduced the autonomy of Brazilian HEIs. This aspect is corroborated by a recent study, together with more than 900 higher courses in action in the country, aiming to know the organisms and their respective degrees of influence in relation to the curricular contents destined to diploma the accountants. Based on a study carried out by Bonzanini et al. [46], in addition to the professional order itself, other professional bodies, such as the United Nations (UN), IASB, and IFAC[4] seek to interfere, in a legal or contributory way, in the training of future Brazilian accountants.

[4]Respectively, International Accounting Standards Board and International Federation of Accountants.

http://dx.doi.org/10.5772/intechopen.68711

2.3.8. Other professional associations and professional accounts: some particularities

In addition to the examples cited here, others may be brought, limited to the space of this text. One refers to the Netherlands, whose Commercial Code dates from 1837, the first document to contemplate the requirement of bookkeeping for the preparation of balance sheets of commercial establishments [34]. Although small in its geographic extent, the Netherlands became famous in the maritime trade, which provoked reflections in the accounting science. By dissociating itself from the Anglo-Saxon influence and the continental European model, due to its operations with foreign clients, its accountants and auditors needed to follow and integrate the evolution of the globalized market.

Currently, Dutch accounting is influenced by corporate law and the accounting profession, therefore, without the influence of tax legislation; there are regulations, both for the Registeraccountant (Chartered Accountant) and for the Administratieconsulent (Accounting Consultant) [34, 35]. As regards the exercise of the profession, the authority which oversees the two categories is the Netherlands Authority for the Financial Markets. For both functions, there is a need for a university degree (master's degree), 1–2 years of professional practice after the degree, and more than 3 years of practical training, in addition to passing the final exam.

In other countries, such as Australia, there has been a significant influence of the British Empire on the accounting profession since its inception as a result of exchanges since 1853, both in trade (import and export) and accounting professionals [47]. India can also be included in this example, as the colonies have in some way used the British model of qualification tests and exams, ultimately consolidating the influence of the accounting and membership principles hitherto used in the UK.

Based on the references presented in this text, the division of powers and attributions among the institutions that qualify future professionals—universities, institutes, and colleges—in relation to professional associations, orders, and councils becomes evident. According to Carvalho [48], the intervention of these entities in the space of so-called "schools" has been strongly criticized, in addition to violation of the separation of powers that must exist between academic training, professional competence of associations, and other professional bodies.

3. Disinterested action or the defense of interests?

According to Carnegie and Edwards [47], the process of professionalization does not start from the formation of an organizational body, although the organizational design is admittedly a key strategy in the pursuit of social closure recognized by the state, associated with the granting of occupational privileges and, not infrequently, to the monopoly powers, granted by the legislation. Rodrigues [3] observes that a fundamental question is related to the long period in which the conviction prevailed that the attribution in the definition of the codes of ethics and the institution of the mechanisms of self-regulation were sufficient for the defense of the public interest. However, the current perception is that it is necessary to discuss and institute new mechanisms for the external control of the professions, both in business ethics and in the ethics of accounting itself [3, 14]. However, practitioners often see such controls as threats to authority and trust in professions, resulting in social conflicts.

On the other hand, due to the recent efforts of occupations, including the use of various strategies to achieve the status of professional orders, the resumption of the teaching issue is important, and traditionally the education system is the only and necessary platform so that the future professional can ensure the credence of professional knowledge. Therefore, the professional orders have exerted the control, both directly and indirectly, on the educational contents of the academics, besides the other requirements of the professional accreditation. This relationship between the two systems of accreditation has resulted in professional closure in the form of a vicious circle, a questionable aspect, since it tends to foster forms of corporatism that are harmful to the public interest.

The primary role of the professional councils does not include the control and verification of the academic training of future professionals, whose role, as emphasized by Carvalho [48], is given to HEIs. Even if the academic title is officially accredited, it is up to the professional orders, as the last reserve of the competences, to expand certain knowledge, even after the academic formation. In this context, professional orders emerge as a controlling stakeholder in relation to universities, since they can determine the course of a profession, without entering into agreements with HEIs, which form professionals related to this professional order [49]. Once enrolled in the respective order, the members receive adequate training, in the scope of professional ethics, in relation to the legal aspects and the good practices necessary for the professional exercise, and functions that are not part of the competences of the university.

Given the need for more discussion, including the social importance of the work of professionals, something they themselves have neglected, Brint [50] affirms, in favor of the development of professional values and in particular association professionals, the importance of universities and intellectuals. This reinforces the importance of the prerogatives of associations, orders, and professional councils, as entities that guarantee the independence of the professions they represent. In this context, the first point that emerges regarding the performance of the orders and the professional councils is related to the role of inspector of the profession, granted by the state, aiming to guarantee access and professional exercise only to those who have completed all stages of training and qualification. However, the current liturgy has demonstrated the growing interest of the professional accounting associations and orders in the training of accountants.

In recent years, there have been a number of fundamental changes in accounting regulation, both in the substance of the rules and in the context of regulatory institutions [51]. Thus, accounting regulation institutions have shifted from the increasing worldwide adoption of International Financial Reporting Standards (IFRS), and in many jurisdictions, including European Union countries, this regulation has been replaced by government regulation or a private body responsible for new standards [52].

In the case of the USA, in addition to the strong performance of professional associations and boards, both in regulation and in the application of access tests, the Sarbanes-Oxley Act resulted in substantial changes in corporate governance until then acting in a self-regulated manner [53]. These changes imply adjustments in curricular content, since new laws, resolutions, and technical pronouncements have been sanctioned. Therefore, the composition of the curriculum, concomitant with the contents offered in the disciplines, can originate from several sources, such as the proposal presented by the United Nations Conference on Trade and Development (UNCTAD), from the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR), in conjunction with the United Nations Conference on Trade and Development (UNCTAD), one of the United Nations (UN) sectors.

Other international organizations, such as the IASB and IFAC, propose regulation and accounting harmonization through a joint proposal for a global curriculum model, suggested as a benchmark for accounting professionals, aiming to standardize the qualification in all countries [51]. In several countries, among them Brazil, the preparation of a National Content Proposal for the undergraduate course in Accounting Sciences is underway, with the objective of creating a new curricular matrix.

Particularly, in relation to aspects to access to the profession, in countries such as Japan and France, there is a requirement for practical internships, defined and regulated by the respective professional order, as a requirement for effective access to the profession. In other countries, such as Germany and the Netherlands, although they do not act in the creation of accounting standards, professional associations are extremely demanding regarding the knowledge of the future professionals, aiming at the access to the respective category.

Thus, from the examples referenced in this text, it is observed that the performance of the professional accounting associations and orders is not limited to the control of professional practice, and there is evidence that it interferes, directly and indirectly, in the academic training given by HEI.

4. Conclusions

As a result of the creation of the professions, professional associations, and orders emerged as a meeting of individuals with the same job, aiming to guarantee, among other points, a private labor market, making it difficult for other members considered as not qualified for the activity. They are entities that do not have profitable activity, and their maintenance occurs through the contribution of their associates. Together with HEIs and the state, they sustain professional power from three pillars: autonomy, through the power to decide on one's own work; the expertise, or monopoly on knowledge; and credentialism, as a control in access to training provided by the state.

Associations and professional orders, in spite of their voluntary and associative nature, are political bodies whose purpose is to define, organize, ensure, and represent the interests of its members, including through the use of entry barriers within its scope of action, from the state concession.

The importance of HEIs in the formal structure that legitimates the professionalization process is emphasized in the theoretical framework of this study, together with professional associations and the state, based on the delegation of the latter. In relation to higher education, as an attribute of the professions and establishing the separation between these and occupations. Also, as central institutions that attribute licenses to work in an occupation, a point that distinguishes between laypeople and professionals.

Even in view of the autonomy envisaged for universities, in the construction of content designed to train accountants, the work of associations and professional orders, in addition to supervising the performance of its affiliates, establishes a series of requirements for the access to the profession and training in accredited schools. In addition to these requirements, in several countries, such as the USA, Germany, Japan, and Brazil, the application of professional access examinations is in charge of professional associations and professional accounting. In addition, numerous international bodies have significant influence over the content intended to train accountants. Among these, the work of the UN—by its agencies UNCTAD and ISAR, the IASB, and the IFAC—shows us that the performance of these entities goes beyond the purposes delegated by the state, directly and indirectly influencing the curricular contents taught in Higher Education Institutions.

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References

[1] Luchman L. Modelos Contemporâneos de Democracia e o Papel das Associações. Revista de Sociologia e Política, 2012;**20**(43):59-80

[2] Freidson E. The Professions and their Prospects. Newbury Park, USA: Sage; 2002

[3] Rodrigues M. Sociology of Professions. Oeiras, Portugal: Celta; 2002

[4] Berg B, Lune H. Qualitative Research Methods for the Social Sciences. 8th ed. Edinburgh: Pearson Education; 2014

[5] Bhattacherjee A. Social Science Research: Principles, Methods, and Pratices. 2nd ed. Tampa, Florida: Textbooks Collection; 2012

http://dx.doi.org/10.5772/intechopen.68711

[6] Beuren I. Como Elaborar Trabalhos Monográficos em Contabilidade: Teoria e Prática. 3rd ed. São Paulo: Atlas; 2013

[7] Abbott A. The System of Professions. An Essay on the Division of Expert Labour. Chicago, USA: The University of Chicago Press; 1988

[8] Willmott H. Organising the profession: A theoretical and historical examination of the development of the major accounting bodies in the U.K. Accounting, Organizations and Society. 1986;**11**(06):555-580. Great Britain: Elsevier Science Ltd

[9] Diniz M. Os donos do saber: profissões e monopólios profissionais. Rio de Janeiro: Revan; 2001

[10] Passos T. Uma Análise dos Argumentos de Émile Durkheim e Oliveira Vianna a Respeito das Associações Profissionais. Revista Ciências Sociais em Perspectiva. Unioeste. 2014; **13**(24):161-173

[11] Cooley C. Human Nature and The Social Order. New York: Charles Scribner's Sons; 1902

[12] Durkheim E. The Division of Social in Society. New York: Macmillam; 1933

[13] Carr-Saunders A. The Profession. Oxford: Clarendon Press; 1982

[14] West A. After virtue and accounting ethics. Journal of Business Ethics. 2016,pp.1-16, Available at https://link.spinger.com /articles

[15] Brante T. Professional fields and truth regimes: In search of alternative approaches. Comparative Sociology. 2010;**9**(06):843-846. DOI: 10.1163/156913310X522615

[16] Saks M. Defining a profession: The role of knowledge and expertise. Professions & Professionalism, 2012;**02**(01):1-10

[17] Svensson K, Evetts J. Sociology of Professions, Continental and Anglo-Saxon Traditions. Sweden: Daidalos; 2010

[18] Angelim P. Profissionalismo e profissão: Teorias sociológicas e o processo de profissionalização no Brasil. Revista Espaço de Diálogo e Desconexão. 2010;**03**(01):31-46

[19] Noordegraaf M. Remaking professionals? How associations and Professional education connect professionalism and organizations. Current Sociology. 2011;**59**(4):465-488

[20] Muzio D, Kirkpatrick I. Introduction: Professions and organizations: A conceptual framework. Current Sociology. 2011;**59**(4):389-405

[21] Buesa N. A Evolução Histórica da Contabilidade como Ramo do Conhecimento. Revista Eletrônica Gestão e Negócios. 2010;**01**(01):01-16

[22] Hendriksen E, Breda M. Teoria da Contabilidade. 5th ed. São Paulo: Atlas; 2007

[23] Baker C. L'evolution d'une profession comptable globale: Une etude comparative historique en quelques pays europeens. In: Comptabilités et innovation, May 2012; Grenoble, France. pp. 01-27

[24] Miranti P. The emergence of accounting as a global profession: An introduction. Accounting History. 2014;**19**(1-2):3-11

[25] Lee T. Consolidating the public accountancy profession: The case of the proposed Institute of Chartered Accountants of Great Britain, 1988/1989. Accounting History. 2010;**15**(10):07-39

[26] Walker S. The genesis of professional organisation in English accountancy. Accounting, Organizations and Society. 1991;**29**(04):127-156

[27] Sudaby R, Viale, T. Professionals and field-level change: Institutional work and the professional project. Current Sociology. 2011;**59**(4):423-442

[28] Ballas A. The creation of the auditing profession in Greece. Accounting, Organizations and Society. 1998;**23**(08):715-736

[29] Altintas N, Yilmaz, F. The accounting profession: A descriptive study of the common and code law countries. Journal of Modern Accounting and Auditing. 2012;**8**(07):932-950

[30] Walker S. The genesis of professional organization in Scotland: A contextual analysis. Accounting, Organizations And Society. 1995;**20**(04):285-310

[31] Walker S. The defence of professional monopoly: Scottish chartered accountants and 'Satellites in The Accountancy Firmament' 1854-1914. Accounting, Organizations And Society. 1991;**16**(03):257-283

[32] Walker S. Men of small standing? Locating accountants in English society during the mid nineteenth century. European Accounting Review. 2002;**11**(02):377-399

[33] Kirkham L, Loft A. Gender and the construction of the professional accountant. Accounting Organization and Society. 1993;**18**(06):507-558

[34] Niyama J. Contabilidade Internacional. 2nd ed. São Paulo: Atlas; 2010

[35] Federation of European Accountats. Key Features on Structure and Organization of the Accountancy Profession across 30 European countries, 2012. Available from: www.fee.be

[36] Evans L, Honold K. The division of expert labour in the European audit market: The case of Germany. Critical Perspective on Accounting. 2007;**18**(01): 61-88

[37] Consiglio Nazional dei Dottori Commercialisti e Degli Esperti Contabili. The Italian Accountancy Profession; 2015. Available from: www.cndcec.it

[38] Caria A, Rodrigues L. The evolution of financial accounting in Portugal since the 1960s: A new institutional economics perspective. Accounting History. 2014;**19**(1-2):227-254

[39] Rodrigues L, Gomes D, Craig R. Corporativismo, liberalismo e a profissão contabilística em Portugal desde 1755. Revista da Câmara dos Técnicos Oficiais de Contas. 2004;**46**(01):24-39. Available from: www.academia.ed

[40] Lira M. A Importância da Aula Do Comércio Na História da Contabilidade Portuguesa. Revista Universo Contábil. 2011;**7**(02):97-113

[41] Carqueja H. As Associações e as Revistas de Contabilidade. Jornal do Técnico de Contas e da Empresa. 2002;**1**(445):296-300

[42] Japanese Institute of Certified Public Accountant. The process of Qualification as a CPA. 2015; Available from: http://www.hp.jicpa.or.jp

[43] National Association of State Boards of Accountancy. The Uniform CPA Examination. 2015; Available from: http://nasba.org/exams/cpaexam

[44] Tostes F. Formação do Contador: uma visão comparativa Brasil, França e Estados Unidos. Pensar Contábil. 2005;**07**(28):13-20

[45] Leite C. A evolução das Ciências Contábeis no Brasil. Rio de Janeiro: Editora FGV; 2005

[46] Bonzanini O, Silva A, Leite T. Critical Perspective on the Influence of Professional Organizations in the Construction of Curricula of Undergraduate Courses in Accounting. 3rd ISA Forum of Sociology – Professionalism in Education and Work. Vien, Austrian; July 2016, 2016

[47] Carnegie G, Edwards J. The construction of the professional accountant: The case of the Incorporated Institute of Accountants, Victoria (1886). Accounting, Organizations and Society. 2001;**26**(1):301-325

[48] Carvalho P. Ordens Profissionais, diferentes desafios, novas reflexões. Janus Online. 2006. Available from: www.janusonline.pt

[49] Mainardes E. Gestão de Universidades Baseada no Relacionamento com os seus Stakeholders. Tese de Doutoramento. Covilhã: Portugal: Universidade da Beira Interior; 2010

[50] Brint S. In an age of experts: The changing role of professionals ins politics and Professional life. Princeton, New Jersey: Princeton University Press; 1994.

[51] Wagenhofer A. Towards a theory of accounting regulation: A discussion of the politics of disclosure regulation along the economic cycle. Journal of Accounting and Economics. 2011;**52**(1):228-234

[52] Trabelsi R. International accounting normalization and harmonization processes across the world: History and overview. Journal on Business Review (GBR). 2015;**4**(02), p88.

[53] Gillis P, Petty R, Suddaby R. The transnational regulation of accounting: Insights, gaps and an agenda for future. Accounting, Auditing & Accountability Journal. 2014;**27**(06):894-902

Behavioral Accounting and its Interactions

Filiz Angay Kutluk

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.68972

Abstract

Behavioral accounting is a branch of accounting that is related to behavior besides the accounting knowledge. It deals with the attitude and behavior of people when they are encountered with an accounting phenomenon which determines the behavior that they will show in decision-making. This special area of accounting addresses such aspects as human information-processing behavior, judgment quality, accounting problems that are created by users and providers of accounting information, and accounting information users' and producers' decision-making skills. Behavioral research tries to find out how individuals make decisions and interact and influence other individuals, organizations, markets, and society. Behavioral accounting concept is examined under the topics of the influence of accounting information on behavior, managerial control (budget participation, nonfinancial measures, leadership, and balanced scorecard), auditing (auditor-client negotiations, auditor's judgment, and decision-making), and ethics (ethical decision-making, ethical orientation, and rationalizations on unethical behavior) in this chapter.

Keywords: behavioral accounting, accounting ethics, auditor, managerial control, influence of accounting information

1. Introduction

Behavioral accounting is a branch of accounting that is related to behavior besides the accounting knowledge. Accounting was recognized as a phenomenon that operated in contexts that forms, functioning, and consequences were interdependent with; now, it is recognized as a practice whose outcomes are mediated by the human and social contexts in which it operates [1]. It deals with the attitude and behavior of people when they are encountered with an accounting phenomenon which determines the behavior that they will show in decision-making [2].

The definition of *Behavioral Accounting* is "an offspring from the union of accounting and behavioral science; it represents the application of the method and outlook of behavioral science to accounting problems" and the *objective of Behavioral Accounting* is "to understand, explain, and predict human behavior in accounting situations or contexts" in Ref. [3] (pp. 127–128).

Behavioral accounting attempts to correct and enrich traditional approaches to accounting theory where preparer and user perceptions, attitudes, values, and behaviors are underemphasized [4]. Belkaoui defines it as "the application of behavioral science to accounting, with its basic objective being the explanation and prediction of human behavior in all possible accounting contexts" (p. 438).

"Not only does accounting summarize huge quantities of behavioral interactions, accounting measurements can become the object of behavior. Accountants account for behavior and accounting measurements can be the objective of behavior and so long as accountants make assumptions about human behavior in accounting, accountants should reexamine their behavioral assumptions be a greater understanding of and involvement in the behavioral sciences" [3] (p. 136).

Behavioral aspect of accounting is that segment of accounting which attends to develop an understanding of both cognitive (perceived) and affective (emotional) elements of human behavior that influence the decision-making process in all accounting contexts and settings. This special area of accounting addresses such aspects as human information-processing behavior, judgment quality, accounting problems that are created by users and providers of accounting information, and accounting information users' and producers' decision-making skills [5]. It was assumed that the decision-maker behaved basically as a profit maximizer in handling accounting problems; but today it is accepted that the individual exhibits psychological behavior also in accounting [6].

A well-known definition of behavioral accounting research appeared in Ref. [7] (p. 43) and was used in several studies such as in Refs. [8] and [9]: "The study of behavior of accountants or the behavior of non-accountants as they are influenced by accounting functions and reports." Behavioral accounting research contains the judgment of accountants and auditors, the influence of the accounting function and auditing function on behavior, and the influence of accounting information on judgment and decision-making of users [9].

Behavioral research tries to find out how individuals make decisions and interact and influence other individuals, organizations, markets, and society. Behavioral researchers who primarily study human actions in a variety of settings are behavioral economists and accountants, two groups of interest for this attempt. Laboratory experimentation, examination of naturally occurring (archival) data, verbal protocols, and theoretical models are from the methodologies employed [10].

The scope of behavioral accounting research has been heard from 1960s, the academic community began to examine the implications that accounting statements and information had upon decision-makers [8]. By the end of 1960s, interest in investigating the behavioral influences that accounting information on individuals and organizations grew rapidly and caused

http://dx.doi.org/10.5772/intechopen.68972

an increase in the number of published studies. In 1970s, the quality of the research was better and recognition of the behavior paradigm by the profession increased significantly [11]. In 1960s, the focus was on managerial accounting which was dealt with the accounting function on behavior; in 1970s, the focus on managerial accounting remained, but the emphasis changed to information processing by decision-makers [9]. Researchers examined judgment and decision-making and the research mainly focused on the auditors, their judgment, and the use of information. User characteristics, decision models, alternatives for communicating accounting information to users, and accounting policy-makers' behavior are also examined [12]. By the 1980s, the research was regarding all subject areas of accounting [9]. By 1997, a number of faculties taught and conducted research in behavioral paradigm, and identified their interest with the area of research application [11].

Behavioral accounting concept is examined in terms of the influence of accounting information on behavior, managerial control, auditing, and ethics in this chapter.

2. Influence of accounting information on behavior

"Accounting systems are often the most important formal sources of information in industrial organizations. They are designed to provide all levels of management with timely and reasonably accurate information to help them make decisions which *are* in agreement with their organization's goals"[13] (p. 156). While some organizations demand from accounting to assess the basis of tax or to follow up debits and credits only, some organizations demand to produce and report the information that meets the needs of the users [14].

According to Macharzina [6] (p. 5) "the process of influencing behavior through accounting information is conceived of as an interaction process, in the course of which an individual (accountant) attempts influence the behavior of one or more other individuals (focal persons) with the aid of appropriate reported information in order, as far as possible, to realize the reporter's or management's behavioral expectation."

Behavioral issues mainly appear through the communication process, not through the more traditional accounting issues such as data-processing methods. One of the domains of behavioral accounting research is the behavior of the recipient of accounting information and how variations in the information influence the behavior, because accounting communications are designed as the basis for behavior [7].

Accounting information influences decision-making mainly [15]. There are three decision-makers that decide by using accounting information:

- Decision-makers who decide concerning both activities and accounting system that prepares financial reports of the firm. This group is top management who is responsible for the preparation and presentation of financial reports and also any change in accounting system.
- Decision-makers who decide concerning activities, but do not decide concerning preparation of financial reports. They cannot change the content of accounting information, but

use it about the decisions of other activities; the result of their decisions may influence accounting system indirectly.

- People who are outside of the firm and influence the environment and activities of the firm, but who do not have direct control on the activities and works of the firm.

The behavioral research in this area examined information systems' structure, the influence of individual behavioral characteristics on the information usage and process, and the relationship between characteristics of decision task and information systems, in 1970s and 1980s [12].

Accounting information can be classified into two categories as financial information and nonfinancial information. Financial information is quantitative in nature, while nonfinancial information includes both quantitative and qualitative information. According to the managers' backgrounds and the nature of the decisions and problems they are facing, different types of accounting information are used in decision-making processes. Managers may also use financial and nonfinancial information simultaneously [16]. Financial information plays a key role in structural decision problems such as the evaluation of organizational performance, whereas nonfinancial information is considered to be more useful for unstructured decision problems like the identification of new business opportunities.

Accounting information can carry out two roles within decision-making: As decision-facilitating information and decision-influencing information [17]. Decision-facilitating information reduces decision-makers' pre-decision uncertainty and, thereby, enhance the probability to making better decisions with respect to the desired objectives. So, it is a direct input in decision-making and is supposed to improve the knowledge and anticipation to make decisions. Decision-influencing information, whose function is important only in multi-person contexts, affects (other) persons' behavior and influences managerial decision-making in the management context. Decision-influencing information enfolds its effects via behavior observation, performance measurement, and evaluation and rewarding or penalizing performance.

Two distinctive styles of information usage, namely diagnostic and interactive, are identified by prior studies [16]. A diagnostic use of the accounting information emphasizes the use of this for "diagnosis," for example, the observation of deviations of organizational processes from a preset norm which reflects a management style that relies on standard setting, measuring, comparing, and taking corrective actions, and which emphasizes monitoring, top-down control, and the pursuit of efficiency [18]. Interactive use of the accounting information emphasizes its role to engage in "interaction" with organizational participants which reflects a management style in which higher level managers involve themselves regularly and personally in the decision activities of subordinates. Managers should be experienced or trained in the use of nonfinancial accounting information in an interactive and participative style. Managers should be experienced in the typical "administrative" ways of dealing with the accounting information if they implement cost-reduction policies control.

Managers with a dominant administrative background tend to use accounting information more diagnostically than interactively, and seem to emphasize performance evaluation and prefer to use financial information for decision-making process [18]. By contrast, managers who adopt an interactive style of information usage tend to use nonfinancial information

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more than financial information in decision-making. Managers who have a balanced background may be most effective to resist pressures toward both cost reduction and quality enhancement. Different styles of information usage have direct implications on the behavior of managers. Senior managers who adopt a diagnostic style of information usage pay attention toward the achievement of planned outcomes [16]. They direct less attention to the tools adopted by lower level managers for achieving the outcomes. Most discussions on organizational outcomes are in formal reviews form and are conducted at the end of set operating periods. Within operating periods, exchanges of accounting information are limited. Continuous exchanges of information occur between organizational members when an interactive style of information usage is adopted by managers. Discussions on organizational outcomes tend to be less formal and can be held at any time.

The suitability of the styles of information usage to managers changes according to the types of decision problems they face; a diagnostic style of information usage is suitable for addressing routine, structural decision problems like organizational performance evaluation and the determination of rewards of the subordinates whereas an interactive style of information usage is more suitable for addressing unstructured decision problems [16].

Accounting information users' personal characteristics and their influence on decision-making should be well known by accounting information preparers and presenters [15]. Users' cognitive process and perceptions will influence the usage and interpretation of accounting information; it is supposed that decisions are influenced by prejudice of perceptions of decision-makers. Trust on decisions and information demand significantly link with the tolerance of uncertainty.

Behavior of accounting information producers depends on four major factors of quality of financial information [5]:

- Relevance: It means that accounting information should be relevant to decision-making.
- Faithful representation: Information should be complete, confirmable, and neutral.
- Comparability: It should enable that similarities in and differences between two sets of economic phenomena would be identified by the users.
- Understandability: It means that users with reasonable knowledge of business and economic activities or financial accounting should be able to realize the meaning of the information.

3. Managerial control

Many forms of empirical research have been taken and many topics analyzed over the years in management accounting research such as to what extent managers probably succeed with their management accounting and control systems in various settings [19]. The behavioral research in this area analyzed the impact of budgetary control on individual performance and how people affect budgets by analyzing individual differences, motivation, and risk aversion and helped us to understand the variability and complexity of people about work and performance. Since 1970s and 1980s, the objective of management accounting seemed to encourage and assist managers in making desirable decisions in organizations and motivating others to perform the results of the decisions [12]. The benefit of behavioral accounting research may be more probable to be seen in the managerial area than in any other aspect of accounting due to the direct and observable relationships between management accounting and behavior in organizations.

A significant portion of BAR also focuses on noneconomic dimensions such as trusting behavior, cooperation, and the expectation of a fair share of any rewards that influence decision-makers in directions at odds with the self-interest and wealth-maximizing assumptions These can lead to greater monetary returns to the decision-maker in certain settings, but they also can expose the decision-maker to greater risk. Other characteristics of the work environment including the national culture can also influence the expectations and behavior of the decision-maker [20].

3.1. Budget participation

Budgets and standards direct people to a certain target and motivate them and also create a criterion for performance evaluation. The extent to which budgets and standards have an influence on behavior depends on the difficulty level of budget targets and if these targets are prepared by the participation of decision-makers. Objectives, budgets, and standards affect human behavior, and the degree of this influence depends on the accessibility of the objectives [15].

One of the reasons that superiors decide to rely heavily on budget targets to evaluate their subordinates is the positive outcome which means that employee job satisfaction and performance are improved when a high budget emphasis evaluative style is accompanied by a high budgetary participation [21]. According to the prior studies, an evaluative style will probably be associated with favorable behavioral outcomes if it emphasizes the importance of budget targets used together with high budgetary participation. Brownell [22] referred that "superiors who exhibit a budget-constrained style and place primary emphasis in their evaluation of subordinates on budget achievement, will provide appropriate reinforcement only for those individuals who are heavy involved and influential in the budget-setting process" [21, 22]. This indicates that budgetary participation isn't independent of an evaluative style which emphasizes meeting budget targets, but rather it is a consequence of this type of evaluative style [21]. Budgetary participation moderates the impact of supervisory evaluative style on performance; it has a positive effect on performance [22].

Another reason that superiors decide to rely heavily on budget targets to evaluate their subordinates which is associated with high budgetary participation is based on the suggestion that it is fair [21]. If superiors choose a high emphasis on budget targets as an evaluation style, they will also choose high budgetary participation because of a forceful need. In this evaluative style, the level of budget targets is important to the subordinates because their performance will be assessed against these targets which may have important effects on the interest of subordinates; so it is only fair that they have a role in determining the levels of realistic and attainable budget targets. Generally, superiors care about to be seen as being fair among their subordinates; therefore, superiors who adopt an evaluative style that has a high emphasis on budget targets will decide to allow their subordinates high budgetary participation to be perceived as fairer.

The main purpose of subordinates' participation in the budgeting process, in superior's side, is to gain information from the subordinate that is useful to plan and coordinate production, reduce uncertainty, and thereby increase profitability [23]. Budgetary slack is "the result of employees misrepresenting their productive capabilities while participating in their budget setting process" [24]. This could result in overstatement of costs and understatement of revenues and profits and could be harmful for the financial well-being of the organization.

3.2. Nonfinancial measures

Performance evaluation is important to employees as their evaluations may be closely linked to their wages and promotions, so they are likely to be concerned with the fairness of the performance measures used [25]. Organizations are facing deep pressure to remain competitive and therefore adapt customer-driven strategies aimed at ensuring high levels of quality and innovation. So organizations expect from employees to perform and show success in possibly many diverse and complex roles. Nonfinancial performance measures such as defect rate, customer satisfaction rate, and number of new products launched may be suited to such contemporary situations as they are not linked to the annual reporting circles and need not be expressed in monetary terms. They may measure progressions in product quality and innovation necessary to maintain and improve customer satisfaction and retention.

Nonfinancial measures that are able to capture the long-term performance of employees' actions are suggested to be used in performance evaluations as they are more flexible, comprehensive, and therefore easier for the employees to associate with; by using them, employees may more likely to realize a long-term perspective of the position in the organization [26].

Employees are measured on the quality of their work, the initiatives they undertake, and in areas in which they have control and they are therefore likely to perceive the use of nonfinancial measures as a fair evaluation of their performance [25]. So, the use of nonfinancial performance measures is likely to be positively related to employee role clarity as it is a means of providing the necessary information to express the role of employees so that they are aware of what is expected of them.

Nonfinancial measures can be seen as a communication tool; the adoption of them as performance evaluation criteria will promote trust within the superior-subordinate relationship [25]. Procedural fairness perceptions are influenced by the trust in superior-subordinate relationships; subordinates are likely to believe that their supervisor will appraise their performance fairly, so the trust the employees have for their supervisors will likely be translated into faith in the performance evaluation system. However, if trust is not established between them, this would cause subordinates to suspect that their superiors may be deceptive and selfish and may lead to a perception that the performance evaluation procedures are unfair.

3.3. Leadership

Leadership, as a social influence process, only really works when people have faith that the manager is directing them toward a worthwhile goal and allow themselves to be led to achieve an organizational goal, which can be summed up in the concept of trust [27]. "Leadership involves activating and engaging the head, heart, hands, and spirit of employees for a purpose that is greater than the individual manager or any one employee that means developing behaviors that favorably impact tasks, build relationships, and bring about transformations" (p. 174).

In transactional leadership, managers create and maintain high-quality interactions with employees to meet the organizational goals by using rewards, power, and authorization. Transactional leadership isn't sufficient to engage and motivate most employees in the long term. Transformational leadership is about motivation of the employees by orienting them to a greater organizational goal beyond any individual short-term goals by creating a tough vision, enabling them to turn the vision into a personal reality, and empowering them to maintain the transformation. Transformational leadership can encourage the growth of a learning organization. An integrated approach is required for an effective management; managers will always make sure that employees receive rewards and recognitions in a transactional meaning, but leadership also requires the skill to provide employees looking beyond their current situation and focus on greater purpose.

3.4. Balanced scorecard

Senior executives realize that organization's measurement system affects the managers' and employees' behavior; in the 1990s, the traditional financial measure-oriented performance evaluation system was challenged by managers and academic researchers [28, 29]. Kaplan and Norton [30] claimed that financial measures were inadequate for the evaluation of the nonfinancial aspects of management performance, and managers may stress short-term financial goals rather than their organization's long-term interests in the case of exclusive use of financial measures in performance evaluations [29, 30]. They promoted using the balanced scorecard (BSC) to evaluate all aspects of managerial performance. A typical BSC has four measurement categories, including financial, customer, internal business process, and employee learning and growth perspectives; generally, the majority of the last three are made up of nonfinancial measures. Balanced scorecard uses both financial and nonfinancial measures with emphasizing nonfinancial measures; therefore, it is important for organizations to understand how the various performance measures can influence the behavior of employees by identifying the essential factors required for the success of performance evaluation systems [26].

If the top management uses both financial and nonfinancial measures in their performance evaluations when they evaluate the performance of middle-level managers, the middle-level managers are more likely to use both financial and nonfinancial measures in their subordinates' evaluation [29]. On the contrary, if the top management uses just financial measures and ignores nonfinancial measures in the evaluation of their middle-level managers' performance, their prejudice will spread to the next level of management via the contagion effect,

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who may put excessive emphasis on financial measures in performance evaluations as well (p. 104). As a result, top managers should use an evaluative style where all measures in the BSC are reflected in evaluating performance.

4. Auditing

Accounting information users need reliable and sufficient information for decision-making; it's the duty of the business management to provide this information [31]. But there may be a possibility that the information isn't reliable because of work load and sophistication in accounting transactions, distance of the users from business, and the tendency of the information providers. So the necessity arises to present audited financial statements to the users to decrease the risk of unreliable information. Some of the users may wish to invest, willing to loan money, or wish to merge; therefore, there must be a procedure to verify the accuracy of the company's financial status [32]. The independent auditor's task begins at this point.

"Auditing is an investigative and information-processing activity, which evolved in response to the need for independently verified stewardship reports" [33] (p. 89). Audit activity includes financial report data examination followed by an audit opinion on the report mainly compliance audit, internal audit, and operational audit. Our main focus will be on independent auditor who is responsible to examine and report the financial statements.

The auditor collects and evaluates relevant and reliable information, and applies professional judgment in choosing among alternatives also by consultation with other professionals who are knowledgeable in the area. The auditor should use critical-thinking skills in the development of a solution or an opinion on the financial statements. Conducting a proper audit requires professional judgment. Relevant knowledge and experience application to the facts and circumstances are essential for interpreting the relevant ethical requirements and GAAS and the informal decisions required during the audit process [34].

Independent auditors offer services to their clients and get payment from the clients for their services, but they may face conflicting loyalties because of the opposing interests between the public and clients; their main responsibility is to guarantee the interest of public [32]. "The auditor's obligations are to certify that public reports depicting a corporation's financial status fairly present its financial position and operations; shortly their fiduciary responsibility is to the public trust and "independence" from the client is fundamental in order for that trust to be honoured" (p. 118). The AICPA Code of Professional Conduct mentions two kinds of independence: Member who provides auditing and other attestation services should be independent in fact and appearance [32, 35].

4.1. Auditor-client negotiations

Financial statements are a product of auditor-client negotiations that is an important link between the audit and the quality of financial statement [36]. Unaudited financial statements of the clients are the first move of starting of negotiations. The first move is a key factor of the other side's actions and often estimates the first mover's attitude during the negotiation process, where client's signal becomes clear as negotiations progress. A client who refuses to post an adjustment proposed by the author may be viewed as being contentious or a client who willingly concedes on an issue after the initial proposal of an auditor may be viewed as concessionary by the author. These contentiousness and concession acts from both the auditor and client are viewed as tactics in a negotiation setting.

It is found that the negotiations are often influenced by negotiators who use tactics [36]. Many research about the use of concessionary tactics found that both auditors and clients reciprocate to concessionary negotiation tactics, such as a first move concession of an unreasonable item made by client may result as auditors probably waive material adjustment or to influence clients to be more likely to record adjusting entries, auditors may use concessions during negotiations. Findings of researches about the usage of contentious tactics show that clients indicated that they would use contentious position during a negotiation with an auditor, whereas auditors will be less likely to waive adjustments as responding to a client who was contentious in the past.

4.2. Auditor's judgment and decision-making

Auditors are required to exercise professional skepticism when making judgments based on audit evidence without being influenced by clients [37, 38]. But there are some evidences that clients may influence auditor judgment through ingratiation which can influence the judgment of the target in many settings [37]. Prior research stated that affect toward the client can influence auditor judgment; as an example, inexperienced auditors who felt negative affect toward the client assess a higher risk of inventory obsolescence than who did not experience affect toward the client. When the auditor likes the client, his/her fraud-risk assessments are lower than when he/she dislikes the client. Ingratiation is indicated as a successful influence tactic by many researches. When persuasiveness of ingratiation is examined, it can be said that sources with high incentive to influence the target have less influence on the target and are less persuasive than sources with low incentive. "When the client ingratiates, auditors are more likely to comply with the requests of clients with low incentive to influence the auditor than with requests of clients with high incentive. This result indicates that ingratiation magnifies the effect of client incentive on auditor judgment" (p. 70).

One of the most important parts of auditing contains decision-making and judgment which are the daily work role of auditors [33]. The ability to make judgments requires education, experience, and expertise, and a measure of auditor's judgmental quality is the degree of accuracy of his/her decisions. One of the factors that impact the auditor's decision-making may be firm size which is found by some researches that accounting disclosure decisions differed between auditors employed at large-size or small-size firms. Another factor that impacts the decision-making may be the auditor's psychological make-up such as tolerance to ambiguity which is closely linked to auditor decision-making. The authors who are tolerant of ambiguity may decide quickly and have more confidence in their decisions.

"When people make decisions in situations which are 'normatively ambiguous' their decision processes and decisions are influenced by knowing whether or not they are going to be accountable to another and suggests that the known view of the person they will be accountable to will influence their decision" [39].

When the judgment performance of experienced auditors versus inexperienced auditors is concerned, experienced auditors will outperform inexperienced auditors because of their domain-specific knowledge, if task and experience levels are properly matched [9].

A strong tone at the top that consists of the culture of control consciousness, integrity, and ethical values from upper level management affects ethical decision-making of mid- and lower level employees [40]. In organizations, upper level management is critical to establishing an ethical tone, but it is seen that ethical decision-making of the staff is also equally impacted by the ethical tones set by lower level supervisors. "The low ethical tone of supervisors at the top and/or bottom may cause entry level staff auditors to construe unethical situations as devoid of ethical implications, such that entry level staff auditors may act more unethically if either of their supervisors exhibit a low ethical tone" (p. 80). It is anticipated that entry-level staff auditors will follow their senior's tone rather than their partners tone as individuals will be more influenced by close in-group members who are similar to them than by out-group members who are dissimilar to them.

5. Ethics

"Ethics is a philosophical discipline that aims to apply actions and rules in keeping with the concepts of right and wrong. This notion is widely related to legitimacy, which is defined as the quality of legal, justice or equity. The legal bases, whether ethical or moral, are the root of legitimacy which is based on authority" [41].

Accounting uses ethics to provide the appropriate behavior of accountants who must adopt certain ethical values and expected to be honest, modest, just, dignified, prudent, zealous, responsible, loyal, innovative, respectful, tolerant, and independent [41]. Accountants must become ethically involved when they are aware that their figures have an effect; they cannot absolve themselves of the responsibility of effecting behavior [7].

5.1. Ethical decision-making

Ethical decision-making abilities and ethical behavior of accountants have been researched and found that the recognition of individual of his/her role as a moral agent is an important factor in ethical judgment and actions. "If a decision isn't recognized as ethical in nature, moral schemata will not be used to address the issue; this ability to recognize the ethical nature of a decision is referred to as ethical sensitivity" [42].

Several cognitive-based models of ethical decision-making have been borrowed mainly from psychology and extended into business and accounting paradigms. The foundation of these models is that Rest's (1986) four-stage model is the basis of these models which specifies four distinct sequential processes that individuals must take to involve an ethical dimension in their decisions, and behaviors are described below [43, 44, 45]:

- **Ethical sensitivity**: Refers to the interpretation of a particular situation, recognition of the ethical issue(s), awareness of what actions are possible, and determination of what the consequences may be on the parties involved.
- **Ethical judgment** (or ethical reasoning): It is about which manner is ethically justifiable; individual makes a moral judgment about the actions and chooses one of them as being morally right.
- **Ethical intention** (ethical motivation): Refers to intention to act in the morally right manner by giving primacy of ethical values higher than other values.
- **Ethical behavior**: Refers to constancy to follow through on the chosen course of action to perform in the morally right way.

"Researchers have found that the other people that an individual encounters in a professional environment influence ethical behavior significantly irrespective whether their behavior is consistent with the individual's ethics or not" [42]. The effect level may be influenced by the organizational distance between the parties and by their relative authority.

5.2. Ethical orientation

Accounting professionals' perceptions of the ethical environment of their firm may be influenced by their own ethical orientation which is driven by two characteristics: idealism and relativism [42, 45]. Idealism reflects the extent to which individuals attribute to universal moral rules and believes that desirable consequences can be generated without violating moral guidelines; by contrast, relativism reflects the degree to which individuals view moral decisions as a function of the particular situation and rejects absolute moral rules to guide behavior.

A direct link between ethical orientation and moral judgments was not present every time according to many researches, but significant relationships are found between ethical orientation and personal feelings about decisions and individual characteristics [45]. Results of some researches indicate that, subsequent to a moral violation, individuals low in relativism feel much more negatively about themselves than individuals high in relativism. Also, highly idealistic individuals feel much more positive about themselves than individuals low in idealism subsequent to a moral violation resulting in positive consequences for others.

5.3. Rationalizations of unethical behavior

The duty of the accountant within the firm is to portray the firm's financial situation correctly and truthfully. But sometimes, there may be misstatements. Managers may use some rationalizations as a guide to justify suspect behavior and to warn against misrepresentation of financial statements [31]:

- The first rationalization for unethical behavior may be the belief that an activity is within reasonable ethical and legal limits; in other words, it is (may) not actually illegal or immoral (p. 140). If there is a hesitation to perform the activity, it means there may be doubts about its accuracy; in this situation, the best way may be not to do it.

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- The second to justify unethical behavior may be the belief that an activity is in the best interest of the individual or the company; in other words, to undertake the activity would somehow be expected from the individual (pp. 141–142). The accountant is expected to be loyal to the company and it may require doing things for the interest of the company that he/she would not do as an objective individual. Even he/she must be loyal to the firm first, objectivity and obligation to the public is required by accountant's code of ethics.
- The third rationalization for unethical behavior may be the belief that an activity is safe because it will never be discovered by anyone (p. 143). Doing this activity with that belief is a rationalization, but not a justification and the behavior is wrong.
- The final reason to justify unethical behavior may be the belief that the company will condone the activity and even protect the person who attempts it because the activity helps the company (p. 144). This belief depends on the integrity of the leaders of the company; they excuse unethical activity, they will condone the loyalty of the accountant, but this lasts only if the unethical activity remains undiscovered. But being in a culture that expecting unethical behavior means that the integrity is in danger.

6. Conclusion

Accountants emphasize short-run measures and may not pay attention to the behavioral consequences because they have been conditioned by their education and organizational experience; this is similar with the focus of top management [12]. Behavioral accounting research is dealt with improving long-term performance. A major contribution on this point would be to include more variables such as human resource accounting in financial-reporting practices and less emphasis on short-run performance. The potential contributions of behavioral research in accounting will not be sufficiently realized until management attitudes change. Behavioral accountants should make great effort to prevail on their academic colleagues to realize the importance of the behavioral implications of accounting.

Accounting profession needs ethical professionals with ethical awareness and sensitivity and capable of considering various variables in decision-making. Various fields in behavioral accounting would improve their perspective [46]. Accounting academicians should consider inclusion behavioral accounting courses in postgraduate curriculum to train potential accounting professionals having a broad perspective.

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References

[1] Hopwood AG. Behavioral accounting in retrospect and prospect. Behavioral Research in Accounting. 1989;**1**:1-22

[2] Usul H. Davranıssal Muhasebe. Ankara: Asil Yayın Dağıtım Ankara; 2007. p. 98

[3] Report of the Committee on the Relationship of Behavioral Science and Accounting. The Accounting Review. 1974;**49** (Committee Reports: Supplement to Volume XLIX of the Accounting Review):127-139. Available from: http://www.jstor.org/stable/pdf/244907.pdf [Accessed: March 13, 2017]

[4] Rogow R. Book Review of " Belkaoui, A. Behavioral Accounting: The Research and Practical Issues. Westport, CT: Ouorum Books; 1989. pp. 1-178" In: Kunin, T, Book Review Section. Personnel Psychology. 1990;**43**(2):438-442). Available from: http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=294653fc-d366-4f6b-a34b-31f284f61f75%40sessionmgr103&vid=0&hid=102 [Accessed: March 13, 2017

[5] Kurawa JM. Issues in behavioral aspects of accounting. In: Dandago KI, editor. Advanced Accounting Theory and Practice. 1st ed. London: Adonis & Abbey Publishers Ltd; 2009. pp. 221-233. ISBN: 9781906704223

[6] Macharzina K. On the integration of behavioural science into accounting theory. Management International Review (MIR). 1973;**13**(2/3):3-14

[7] Hofstedt TR, Kinard JC. A strategy for behavioral accounting research. The Accounting Review. 1970;**45**(1):38-54

[8] Lord AT. The development of behavioral thought in accounting, 1952-1981. Behavioral Research in Accounting. 1989;**1**:124-149

[9] Bamber EM. Opportunities in accounting behavioral research. Behavioral Research in Accounting. 1993;**5**:1-29

[10] Birnberg JG, Ganguly AR. Is neuro accounting waiting in the wings? An essay. Accounting, Organizations and Society. 2012;**37**:1-13

[11] Dyckman TR. The ascendancy of the behavioral paradigm in accounting: The last 20 years. Behavioral Research in Accounting. 1998;**10**(Suppl):1-10

[12] Caplan EH. Behavioral accounting: A personal view. Behavioral Research in Accounting. 1989;**1**:109-123

[13] Hopwood AG. An empirical study of the role of accounting data in performance evaluation. Empirical research in accounting: Selected studies. Journal of Accounting Research. 1972;**10**(Suppl):156-182

[14] Sevilengül O. Genel Muhasebe. 17th ed. Ankara: Gazi Kitabevi; 2014. p. 813

[15] Kısakürek MM, Pekcan A. The view of accounting information from different perspective. Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi. 2005;**6**(2):107-125

[16] Mohd Yusof NA, Hui WS, Rahman IKA, Alam NOS, Tse MSC. Style of information usage and use of accounting information: A Malaysian study. Asian Review of Accounting. 2012;**20**(1):20-33. DOI: 10.1108/13217341211224709

[17] Wall F, Greiling D. Accounting information for managerial decision-making in shareholder management versus stakeholder management. Review of Managerial Science. 2011;**5**:91-135. DOI: 10.1007/s11846-011-0063-8

[18] Naranjo-Gil D, Hartmann F. How CEOs use management information systems for strategy implementation in hospitals. Health Policy. 2007;**81**:29-41. DOI: 10.1016/j.healthpol.2006.05.009

[19] Kihn LA. Performance outcomes in empirical management accounting research: Recent developments and implications for future research. International Journal of Productivity and Performance Management. 2010;**59**(5):468-492

[20] Birnberg JG. A proposed framework for behavioral accounting research. Behavioral Research In Accounting. 2011;**23**(1):1-43. DOI: 10.2308/bria.2011.23.1.1

[21] Lau CM, Tan SLC. Budget targets as performance measures: The mediating role of participation and procedural fairness. In: Epstein MJ, Lee JY, editors. Advances in Management Accounting. 1st ed. Bingley, UK: Emerald Group Publishing; 2012. pp. 151-185

[22] Brownell P. The role of accounting data in performance evaluation, budgetary participation and organizational effectiveness. Journal of Accounting Research. 1982;**20**(1):12-27

[23] Hobson JL, Melone MJ, Stevens DE. Determinants of moral judgments regarding budgetary slack: An experimental examination of pay scheme and personal values. Behavioral Research in Accounting. 2011;**23**(1):87-107. DOI: 10.2308/bria.2011.23.1.87

[24] Venkatesh R. The budget participation-budgetary slack relationship: The role of psychological capital. Journal of Theoretical Accounting Research. 2014;**9**(2):1-20

[25] Lau CM, Berry E. Nonfinancial performance measures: How do they affect fairness of performance evaluation procedures? In: Epstein MJ, Manzoni JF, Davila A, editors. Performance Measurement and Management Control: Innovative Concepts and Practices. 1st ed. Bingley, UK: Emerald Group Publishing; 2010. pp. 285-308

[26] Chia DPS, Lau CM, Tan SLC. The relationships between performance measures and employee outcomes: the mediating roles of procedural fairness and trust. In: Davila A, Epstein MJ, Manzoni JF, editors. Performance Measurement and Management Control: Behavioral Implications and Human Actions. 1st ed. Bingley, UK: Emerald Group Publishing; 2014. pp. 203-232

[27] Reis M, Geller J. A Manager's Guide to Human Behavior. 5th ed. New York, NY: (American Management Association) AMACOM; 2010. p. 244

[28] Kaplan RS, Norton DP. The balanced scorecard-measures that drive performance. Harvard Business Review. 1992;**70**(1):71-79

[29] Kang GG, Roline AC. The contagion effect in performance evaluations in the context of balanced scorecards. In: Epstein MJ, Lee JY, editors. Advances in Management Accounting. 1st ed. Bingley, UK: Emerald Group Publishing; 2012. pp. 101-124

[30] Kaplan RS, Norton DP. Strategic learning & the balanced scorecard. Strategy & Leadership. 1996;**24**(5):18-24

[31] Bozkurt N. Muhasebe Denetimi. 6th ed. Istanbul: Alfa Basım Yayım; 2012. p. 379

[32] Duska R, Duska BS, Ragatz JA. Accounting Ethics. 2nd ed. West Sussex, UK: Wiley-Blackwell; 2011. p. 237

[33] Parker LD, Ferris KR, Otley DT. Accounting for the Human Factor. Australia: Prentice Hall; 1989. p. 212

[34] Weirich TR, Churyk NT, Pearson TC. Accounting & Auditing Research and Databases. New Jersey: John Wiley & Sons Inc.; 2012. p. 255

[35] American Institute of Certified Public Accountants (AICPA). 2002. Consideration of Fraud in a Financial Statement Audit. AU Section 316. Source: SAS No. 99; SAS No. 113. 2002. Available from: https://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-00316.pdf [Accessed: March 28, 2017]

[36] Bergner JM, Peffer SA, Ramsay RJ. Concession, contention and accountability in auditor client negotiations. Behavioral Research in Accounting. 2016;**28**(1):15-25. DOI:10.2308/bria-51146

[37] Robertson JC. The effects of ingratiation and client incentive on auditor judgment. Behavioral Research in Accounting. 2010;**22**(2):69-86. DOI: 0.2308/bria.2010.22.2.69

[38] American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct. 2014. Available from: http://www.aicpa.org/Research/Standards/CodeofConduct/Down loadableDocuments/2014December15ContentAsof2016August31CodeofConduct.pdf [Accessed: March 28, 2017]

[39] Buchman TA, Tetlock PE, Reed RO. Accountability and auditors' judgments about contingent events. Journal of Business Finance & Accounting. 1996;**23**(3):379-398

[40] Pickerd JS, Summers SL, Wood DA. An examination of how entry-level staff auditors respond to tone at the top vis-a'-vis tone at the bottom. Behavioral Research in Accounting. 2015;**27**(1):79-98. DOI: 0.2308/bria-50918

[41] Youssef A, Rachid OM**.** Ethical basis of the international financial reporting standards (IFRS). Malaysian Accounting Review. 2015;**14**(1):1-24

[42] Shaub MK, Finn DW, Munter P. The effects of auditors' ethical orientation on commitment and ethical sensitivity. Behavioral Research in Accounting. 1993;**5**:145-169

[43] Rest, J. Moral Development: Advances in Research and Theory. New York: Praeger Publishers; 1986. 241 p

[44] Martinov-Bennie N, Mladenovic R. Investigation of the impact of an ethical framework and an integrated ethics education on accounting students' ethical sensitivity and judgment. Journal of Business Ethics. 2015;**127**:189-203. DOI: 10.1007/s10551-013-2007-5

[45] Patterson DM. Causal effects of regulatory, organizational and personal factors on ethical sensitivity. Journal of Business Ethics. 2001;**30**:123-159

[46] Bobek DD, Hageman AM, Radtke RR. The influence of roles and organizational fit on accounting professionals' perceptions of their firms' ethical environment. Journal of Business Ethics. 2015;**126**:125-141. DOI: 10.1007/s10551-013-1996-4

Chapter 12

The Future of Accounting Profession in an Era of Start-Ups

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Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.69264

Abstract

With the help of the advancements in the field of communication and information technologies, the number of IT-based software has rapidly increased and the capabilities of high-budget enterprise resource planning (ERP) software widely used by large enterprises have begun to be offered to small and medium-sized enterprises (SMEs). In this chapter, cloud computing and other information technologies based accounting start-ups are covered, and the effects of these highly increasing start-ups on the profession of accounting have been addressed. In conclusion, it has been predicted that technology-based accounting start-ups with both accounting professionals and entrepreneurs having an expertise on information technologies will come together and will increase in the future, and cloud-based accounting initiatives will shape the future of the profession.

Keywords: accounting profession, technology, start-up, big data, accountant

1. Introduction

Accounting is a profound profession that has existed since the birth of civilizations, and its marks have been seen ever since BC and today people still use it [1]. Accounting, which is an essential business function and management tool, has always been able to restructure itself in all important transformations in enterprises and its forms in a new transformation today. This transformation includes both technological developments that transform the current form of the accounting and intellectual conversions that transform the purpose and ways in which accounting is used.

With the developments in communication technologies, accessing and investments costs are rapidly increased, and that situation led to the emergence of start-ups which enable small and medium-sized enterprises (SMEs) to benefit from many support systems of decisions that were previously available to large and institutional enterprises. Start-ups are newly established but have a high rate of growth and growth potential, have focused on especially SMEs in corporate services and have transformed accounting functions like operational functions into support-system of decisions for SMEs. In this process, start-ups, which use actively cloud computing, big data analysis and artificial intelligence technologies, have become a major opponent to the traditional business model and have influenced the future role of the accounting.

In this chapter, the predictions of the future of the accounting profession are shared by taking into account the technologies that are being used in today, reflections of these into business and effects on the accounting sector.

2. Technologies of today and their reflection to business

From 16 years now, it was 2001 when MIT Technology Review was announced 'Natural Language Processing' technology as one of the '10 Breakthrough Technology List' [2] of the year which is basically about the computers that can understand the daily language of humans and interact with them in a way as close as the natural communication of humans in between. It may seem familiar since we have 'Hey Siri!' or 'Okay Google!' in use today. It is not actually breakthrough today to interact with a computer in a very close way to the natural human interaction. Today, in the same list, there are immune engineering, reusable rockets, robots that teach each other and autonomous cars [3].

2.1. Technologies of today

All the technological advancements that we expect to have in future and that we used up already have transformational effects on the way we produce, buy, sell and consume. Technology is the major influencer of business and of its functions since the modern businesses that we establish today are strongly connected with technological advancements in many ways. The most important technological advancements that affect businesses directly can be listed shortly as follows:

- **Cloud computing and big data:** Cloud computing technology or simply referred as cloud is an on-demand server system that can be reached any time or anywhere to access or store data, applications or other services. Although it is not a brand-new technology which was also popular at the years of 'dotcom' bubble, with the help of advancements in communication technologies, infrastructure and the operational costs of cloud computing decreased significantly [4, 5]. Cloud technology has brought many advantages for businesses such as lower operating costs of working online, higher level of data security, access from anywhere and anytime [6]. On the other hand, with the advancements in both cloud and other information technologies, companies have faced with a stream of data from every aspect of their business and that stream allowed companies to analyse that big data and get insights that are hidden before [7, 8]. According to IBM, human being is creating 2.5 quintillion bytes of data every day and 90% of the world's data today has been created in the last

2 years alone [9]. Big data are defined by Gartner as 'high volume, high velocity and/or high variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision-making and process automation' [10]. IBM adds 'Veracity' to this definition as uncertainty of data [11]. The high volume, velocity, variety and veracity data can come in as company data, consumer data, sensor data or syndicated data [12]. According to the results of a research that conducted to the executives of 330 public North American companies, companies perform better on objective measures of financial and operational results when they characterize themselves as data-driven [13].

- **Artificial intelligence:** Artificial intelligence (AI) can be defined as using human intelligence elements by machines in order to complete tasks that require human intelligence. AI technology in today's context has a historical background that goes more than 70 years [14]. However, with the developments in the technology at last 10 years, the AI has become a strategic tool for businesses from smart devices to software. According to a report from Tractica, $40.6 billion will be spent on artificial intelligence systems for enterprises from 2015 to 2024 [15].

2.2. Technology-driven business and revenue models

The effect of technological advancements to the way of doing business is well known since the development of steam power machines [16]. Today, as a consequence of advancements in technologies mentioned above, new business models for traditional sectors have changed the way of competition [17, 18]. Hui claims that today's companies should reconsider their business models in order to stay in the competition [19].

With the wide spread use of cloud technology, many traditional software companies have changed their business model as subscribing the customers to the software service instead of selling the software. This new model is called as Software as a Service (SaaS). SaaS model creates an efficient and productive system for the customers and the software companies by decreasing the infrastructure investments, operating costs and making the data entry and monitoring activities seamlessly from anytime and anywhere with an internet-connected device [20, 21]. According to report of Gartner, SaaS cloud application services market growth 20.3% with $37.7 billion [22].

Janssen and Joha compare traditional software and SaaS characteristics as shown in **Table 1** [23]:

Characteristics	Traditional software	SaaS
Ownership	Buying of software	Renting of software without taking ownership
Pricing model	Up-front investments and costs for local installation/maintenance including licenses	Pay-per-use or pay-per-period
IT function	Buys, installs, develops, implements and maintains their own software	Subscribe, plug in and use; no need for an IT function and no concern of updates
Expertise needed	In-house software expertise needed for control and maintenance	Usage expertise required

Table 1. The Characteristics of Traditional Software and SaaS.

On the other hand, AI and machine-learning technologies allowed companies to create services like chatbots which can interact with humans and operate as the same as a human operator. Chatbots can be defined as a software for communicating with humans in a natural way in order to complete a task such as shop assistance or appointment schedule. Chatbots are getting more and more attention from businesses since it can reduce operating costs and increase customer satisfaction [24, 25].

The transformation in technology influenced the starting new era with business ideas and entrepreneurship. Many entrepreneurs have begun to build their business on the technologies detailed above. Businesses with cloud-based initiatives, SaaS revenue models, chatbots and other artificial intelligence applications are viewed as an important opportunity by entrepreneurs of the new generation. These small or medium-sized initiatives especially not so much paid attention by big companies, which have chosen the business as their market, have grown rapidly and led to the emergence of the entrepreneurial ecosystem within this market.

3. The effects of technology on accounting

Accounting is one of the professions that can adapt quickly to the requirements and competencies of the present times. It has a rooted tradition and historical background. The accounting profession, which has undertaken the necessary transformations without breaking away from its basic principles in coordination with all technological transformations since the period of record-keeping was occurring by hand, plays a critical role in the decision-making processes of enterprises as an important information system today [26]. The accounting information system can be defined as the collection, storage and processing of financial and non-financial accounting transactions through information processing technologies in order to support management decisions [27]. The accounting information system is integrated into the enterprise resource planning (ERP) flow. Thus, the stronger information-flow can be provided.

This transformation of accounting has led to the linking of information technology and the accounting profession to each other and strengthening this bond day by day. The relationship between IT and accounting affects the quantity and quality of information that will support decision-making processes [28, 29].

Enterprise resource planning systems that incorporate an accounting information system have not been very well suited for use in SMEs, which remain as systems that can be used only by large enterprises over a long period due to high installation and operating costs [30, 31]. With the technological developments, which have also been stated in the previous sections, and the transformation of these technologies into new business and income models by entrepreneurs as well as in many areas of the business, significant effects have also been seen in accounting field.

As mentioned above, today's small and medium-sized initiatives can benefit from the in-depth reports generated mainly from accounting data that are monopolized by large corporations in the past and interactions with other business units of the accountant. Mobile applications developed for use in smart devices enable the digitalization of bills, invoices and other traditional physical evidence and accelerate transactions. Through the mobile

http://dx.doi.org/10.5772/intechopen.69264

applications, many accounting transactions can be performed instantaneously without errors, and accounting processes are simplified and management is facilitated, especially for small businesses and freelance employees.

3.1. Big data, accounting and integrated reporting

Accounting is one of the most prepared business units for big data use as a unit in which intensive data flow and analysis have been carried out in the past, and reports have been filtered by these data. Big data, unlike the traditional data recording, processing, and interpretation processes, allow structured or unstructured data to be aggregated from many sources to produce meaningful results. Big data and accounting are two concepts that cannot be considered separately from each other in the near term.

In all areas of accounting, the use of big data in management accounting, financial accounting and financial reporting increases effectiveness and efficiency [32]. The audit processes are carried out in a data-focused manner and the more precise results are achieved through the big data [12]. Information results from big data analysis will reduce the risk of accounting processes, increase the accuracy of management decisions and enrich the meaning of accounting data. Big data allow the accountant to correlate financial measures with non-financial measures and improve their reporting capabilities [33]. Big data analysis can support business managers in predicting and managing the financial risks of the business.

The development of big data access in accordance with data processing, specialized algorithms and enhanced analysis methods enriched the reporting capabilities of businesses as well as the insights of reports for the use of management. Thus, it is enabled to reach more significant conclusions by using financial information and non-financial information together [33].

Related data are needed to measure, manage and create value from intellectual capital, human capital and other intangibles [34]. Value-based integrated reports that have been getting more attention from corporations in recent years are bringing light to value creation and change of businesses in today and in the future [35]. In order to improve the accuracy of integrated reports, big data analysis can be seen as an important opportunity. Businesses can define key performance indicators (KPIs) more accurately via big data analysis and enhance the performance measurements [36].

Big data analysis is a valuable asset that can enrich the effects of integrated reporting by providing more accurate forecasting, faster analysis capability and instant access to the critical data [37]. It helps the organizations to create the connectivity of information that supports integrated thinking by determining the relations between financial and non-financial performance of business functions, operational divisions and supply chains of businesses [38]. Along with developing models that can explain or predict what is happening and why, big data give the opportunity of creating value from that information via KPIs [39].

KPIs are tools that management use to understand how the organization performs in terms of critical success factors. These tools focus on the factors that are seen as the most important for the success of organization both in today and in the future [40]. Integrating big data analysis with performance monitoring and evaluating processes allows to uncover new motivational measures and to identify the harmful ones as well as producing correlations that can show management performance and value relation more clearly [41].

A significant competitive advantage can be gained by analysing all the data obtained from business units, shareholders and other related parties from internal and external environment of the business as big data on corporate reporting processes and on identifying and evaluating the KPIs. However, in order to convert big data to meaningful insights that are crucial for decision-making processes of the management, the organization should have adequate big data-analysis skills. In this sense, both accounting and finance units which are responsible from financial data and other units which are responsible from non-financial data should work in coordination with the focus of big data analysis.

3.2. Cloud computing and accounting

Cloud computing has become an essential technology that is more meaningful with big data technology and provides significant productivity increase and cost efficiency for businesses. As a result of supporting the relationship between accounting and data with cloud computing, the possibility of accessing desired information, report or analysis has emerged without noticing from time and place. The storage of accounting data in the cloud and the realization of analysis with cloud-assisted software also support accounting with real-time data and accelerate decision-making processes of managers [42, 43].

Cloud computing reduces operating costs by simplifying the technological infrastructure that businesses must have. The storage of accounting data in the cloud avoids risks that could lead to the loss of data such as accident, theft or loss that would occur in the physical condition of the business. Business models such as SaaS with cloud computing have distorted traditional software pricing strategies, making accounting and finance software much more accessible. This situation facilitated the use of accounting data as a critical management tool for businesses and increased the efficiency of accounting staff.

Cloud computing enables employees of accounting and finance doing their job simultaneously, as well as enable specialists from different business functions to access a report at the same time, or by supporting a report simultaneously with different data. In addition to all its benefits, data security is one of the most important issues that have slowed down or made a risk in the adaptation of cloud computing to businesses [44]. Contrary to traditional software, servers are owned by other organizations in cloud computing, and the limited number of intervention options in cloud computing users' to protect these data leads to increased security vulnerabilities.

3.3. Artificial intelligence and accounting

The widespread use of artificial intelligence and machine-learning technologies has led to the emergence of different collaborations and new effective management tools. The adaptation of artificial intelligence and machine-learning technologies into the areas of accounting and finance, and auditing is one of the areas of particular interest to businesses in the era we are in [45, 46]. A total of 1663 artificial intelligence initiatives, with a total investment of $12.35 billion [47], have been taken in 70 countries.

http://dx.doi.org/10.5772/intechopen.69264

KPMG announced last year that it would collaborate with IBM's artificial intelligence 'Watson' in its audit services to benefit from cognitive power [48]. IBM's artificial intelligence constantly analyses, learns and supports its users in their processes [49]. Similarly, Deloitte uses the artificial intelligence system developed by Kira systems to make audit processes more effective. Thanks to the system, hundreds of thousands of documents can be analysed within weeks and converted into meaningful results within the framework of defined criteria [50].

Data generated from accounting department are usually prepared in the framework of standards, policies, procedures and rules that are under control of legitimate authorities. Artificial intelligence technology can fulfil standardized accounting transactions without requiring human intervention, and even in non-standardized or interpretive works, make decisions like the human by learning former characteristics of decisions of the users. Besides comprehensive processes such as audit activities, artificial intelligence technology reduces the burden of businesses and improves productivity by reducing the error rate in basic accounting processes such as invoicing and tax applications.

Smacc, a Germany-based start-up, applies artificial intelligence technology to financial management processes and provides them to the sector. With the technology, invoices are automatically detected, their types are determined, tax processes are managed, records are made and the system develops itself by learning from past processes [51]. The use of artificial intelligence systems in accounting applications is one of the topics that the accounting academicians have studied for a long time [46, 52–54]. It is now apparent that these studies have been adopted by start-ups and big enterprises and contributed to the transformation of the profession.

4. Effects of the start-ups on the accounting profession

Companies that referred as start-ups with a great growth rate and make actual the business opportunities of the results from digitalization have affected disruptively on all traditional business models of traditional sectors like accounting. New-generation start-ups combine SaaS and similar business models with flexible working styles, focus on speed and simplicity, make these accessible for SMEs to high technology services that be taken apart from big corporate enterprises, thus creating a vital market.

Accounting profession has a key position for being both a function that internal structure of firms and external as support units like CPA offices. Accountancy that reflects all the transformations of technology on business for many years forced to a new transforming by technology-focused start-ups.

Micro-level accounting processes that SMEs must employ at least one accountant to make them real are detected as primary market for many start-ups that founded as accountancy-oriented and with the help of software that combines cloud, big data and artificial intelligence technologies, SMEs have become more effective and employee efficient.

In the past, enterprise resource planning software which was used mostly by corporate enterprises being served with SaaS model to small scaled enterprises; on the one hand, caused by increasing competition, on the other hand, started to threat traditional accounting processes and accountants which follow that processes. Accounting start-ups that combine complex accounting software with simple interfaces and mobile application supports enable businesses to track bills, invoices and other traditional accounting processes by digitally and destroy the traditional models of the accounting profession, and force to transforming present accounting companies.

Parasut.com, a start-up based in Turkey, that combines financial management of SMEs with cloud computing, was founded by three partners who do not have any accounting expertise or educational background. Among the 30 employees of Parasute.com that serves more than 3000 enterprises, there is no official accountant. It solves this need by receiving consultancy from public accountant companies in order to improve its products and services [55].

Today's accounting entrepreneurs are able to offer complete and efficient accounting systems for enterprises that can manage all the accounting processes of a company without employing any accountant. This situation also gives an important idea about the future of the accounting profession.

5. Conclusion

The survey, which was held in the USA, conducted with 400 CPA companies; 90% of participants agree with the digital future is approaching rapidly, while only 8% indicate the accounting profession is ready for the future. About 80% of the participants said they needed more knowledge about the developing technologies [56]. The technological developments mentioned and discussed in previous sections force the accountancy and accounting to an important shift, just as the example of parasut.com mentioned above. During this changing process, CPAs and other members of accounting profession do not have the opportunity to move to what they do today and the way of they doing those to the future.

According to a report published by Intuit, by 2016, 62% of small and medium-sized companies have completed cloud integration. This rate was 37% 2 years ago. This situation can be shown as a factor that obliges SME-CPA relations to be carried out entirely in the cloud in the near future. On the one hand, cloud computing and big data technologies are improving the efficiency of accounting and the quality of reporting analysis, on the other hand, increasing efficiency on the other side, promoting the need for fewer human resources. When these developments in communication technologies are combined with artificial intelligence and machine-learning technologies, it shows up all the tasks performed by traditional accounting professions can be performed by machines. This results in a shift in the roles of the accounting profession and accountants.

Future accountants have to focus on specialization and cooperation, enhance accounting skills in high value-added fields and adhere to technological innovations that affect the profession such as large data analysis and a focus on consulting. Especially, the rapid transformation of enterprises will bring new legal regulations and standards that must be followed. Professionals specialized in accounting may be responsible for managing the compliance process of an enterprise with the relevant conversions. In this entire transformation process, accounting companies which can follow the technology that affects closely to accounting, and can diversify their services by adapting to these technologies quickly, will continue to maintain their assets and continue to create value for businesses in the past as well.

The rapid increase in the number of start-ups and the expectation that this and discussed will continue in the near future brings an important opportunity for the accounting profession with it. Start-ups are constantly faced with investment and partnership transactions to manage the rapid growth process as micro-entrepreneurs built on specific expertise. The expertise of accountants in these micro-enterprises, with the ability to manage the investment and financing processes of start-ups, will bring CPAs into the position of CFOs for start-ups [57]. Similarly, fast-growing share economy as an ecosystem created by start-ups causes people who do not own any company to operate in different ways in the economic environment and to create financial transactions within the scope of the sharing economy. Accounting professionals may undertake the finance and tax advisor role of those who are getting crowded in the economy day by day without any financial competence.

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References

[1] Anandarajan M, Anandarajan A, Srinivasan CA, editors. Business Intelligence Techniques: A Perspective from Accounting and Finance. 1st ed. Berlin Heidelberg: Springer-Verlag; 2012. p. 268. DOI: 10.1007/978-3-540-24700-5

[2] MIT Technology Review. 10 Breakthrough Technologies 2001 [Internet]. 2003. Available from: http://www2.technologyreview.com/news/401767/natural-language-processing/ [Accessed: 15 February 2017]

[3] MIT Technology Review. 10 Breakthrough Technologies 2016 [Internet]. 2016. Available from: https://www.technologyreview.com/lists/technologies/2016/ [Accessed: 15 February 2017]

[4] Hayes B. Cloud computing. Communications of the ACM. 2008;**51**(7):9-11

[5] Buyya R, Yeo CS, Venugopal S, Broberg J, Brandic I. Cloud computing and emerging it platforms: Vision, hype, and reality for delivering computing as the 5th utility. Future Generation Computer Systems. 2009;**25**(6):599-616

[6] Assante D, Castro M, Hamburg I, Martin S. The use of cloud computing in SMEs. In: Second International Workshop on Mobile Cloud Computing Systems, Management, and Security (MCSMS-2016); Procedia Computer Science; 2016. pp. 1207-1212

[7] Côrte-Real N, Oliveira T, Ruivo P. Assessing business value of big data analytics in European firms. Journal of Business Research. 2017;**70**:379-390

[8] Ram J, Zhang C, Koronios A. The implications of big data analytics on business intelligence: A qualitative study in China. Procedia Computer Science. 2016;(87):221-226

[9] IBM. Bringing Big Data to the Enterprise [Internet]. Available from: https://www-01.ibm.com/software/data/bigdata/what-is-big-data.html [Accessed: 17 February 2017]

[10] Gartner. IT Glossary [Internet]. Available from: http://www.gartner.com/it-glossary/big-data/ [Accessed: 17 February 2017]

[11] IBM. IBM Big Data Hub [Internet]. Available from:http://www.ibmbigdatahub.com/sites/default/files/infographic_file/4-Vs-of-big-data.jpg?cm_mc_uid=02578212696914864077665&cm_mc_sid_50200000=1489318956 [Accessed: 17 February 2017]

[12] Hannan A. Big Data Meets Accounting [Internet]. 2016. Available from: http://www.beckerpinnacle.com/accounting-and-finance/continuing-professional-education/big-data-meets-accounting/2016 [Accessed: 18 February 2017]

[13] McAfee A, Brynjolfsson E, Davenport TH, Patil DJ, Barton D. Big data. The management revolution. Harvard Business Review. 2012;**90**(10):61-67

[14] Buchanan BG. A (very) brief history of artificial intelligence. Ai Magazine. 2005;**26**(4):53

[15] Tractica. Artificial Intelligence Market Forecasts [Internet]. 2016. Available from: https://www.tractica.com/research/artificial-intelligence-market-forecasts/ [Accessed: 18 February 2017]

[16] Baden-Fuller C, Haefliger S. Business models and technological innovation. Long Range Planning. 2013;**46**(6):419-426

[17] Pateli AG, Giaglis GM. Technology İnnovation-Induced business model change: A contingency approach. Journal of Organizational Change Management. 2005;**18**(2):167-183

[18] Amit R, Zott C. Business model innovation: Creating value in times of change. IESE Business School Working Paper. 2010;**870**:1-17. DOI: http://dx.doi.org/10.2139/ssrn.1701660

[19] Hui G. How the ınternet of things changes business models. Harvard Business Review. 2014;**29**:1-5.

[20] Ma D. The business model of software-as-a-service. In: Services Computing, SCC 2007. IEEE International Conference; 2007. pp. 701-702

[21] Lee SG, Chae SH, Cho KM. Drivers and inhibitors of SaaS adoption in Korea. International Journal of Information Management. 2013;**33**(3):429-440

[22] Gartner. Forecast: Public Cloud Services, Worldwide, 2013-2019, 4Q15 Update [Internet]. 2016. Available from: http://www.gartner.com/newsroom/id/3188817 [Accessed: 20 February 2017]

[23] Janssen M, Joha A. Challenges for adopting cloud-based software as a service (SaaS) in the public sector. In: ECIS 2011 Proceedings; 2011

[24] Reshmi S Balakrishnan K. Implementation of an inquisitive chatbot for database supported knowledge bases. Sādhanā. 2016;**41**(10):1173-1178

[25] Floyd SA. Do machines hold a key to business success? PM World Journal. 2016;**10**:1-10

[26] Ghasemi M, Shafeiepour V, Aslani M, Barvayeh E. The impact of information technology (IT) on modern accounting systems. Procedia-Social and Behavioral Sciences. 2011;**28**:112-116

[27] Trigo A, Belfo F, Estébanez RP. Accounting information systems: Evolving towards a business process oriented accounting. Procedia Computer Science. 2016;**100**:987-994

[28] Mancini D, Dameri RP, Bonollo E. Looking for synergies between accounting and information technologies. In: Mancini D, Dameri RP, Bonollo E, editors. Strengthening Information and Control Systems. Springer International Publishing; Switzerland 2016. pp. 1-12. DOI: 10.1007/978-3-319-26488-2

[29] Omoteso K. The application of artificial intelligence in auditing: Looking back to the future. Expert Systems with Application. 2012;**39**(9):8490-8495

[30] Haddara M, Elragal A. ERP adoption cost factors identification and classification: A study in SMEs. International Journal of Information Systems and Project Management. 2013;**1**(2):5-21

[31] Venkatraman S, Fahd K. Challenges and success factors of ERP systems in Australian SMEs. Systems. 2016;**4**(2):20

[32] Warren D, Moffitt KC, Byrnes P. How big data will change accounting. Accounting Horizons. 2015;**29**(2):397-407

[33] Hodgkinson R, Gillon K. The finance function and IT: A bigger picture. In: Management Accounting Research Conference; 22 March 2012; London School of Economics; 2012 https://www.icaew.com/~/media/corporate/files/about%20icaew/what%20we%20do/thought%20leadership/finance%20and%20it%20handout%20v5%20final.ashx

[34] Brynjolfsson E, Hitt LM, Kim HH. Strength in numbers: How does data-driven decision making affect firm performance? SSRN. 2011: DOI: http://dx.doi.org/10.2139/ssrn.1819486

[35] Moffitt KC, Vasarhelyi MA. AIS in an age of big data. Journal of Information Systems. 2013;**27**(2):1-19

[36] Cavey S How do Big Data and KPIs work together?. [Internet]. 2015. Available from: http://www.culturatech.com/blog/article/how-do-big-data-and-kpis-work-together#sthash.5CHy5jot.dpuf [Accessed: 05 March 2017]

[37] EY. Are You Prepared for Corporate Reporting's perfect Storm? [Internet]. 2015. Available from:http://www.eychile.cl/Content/pdf/Estudios/09022016153012_pdf_REPORT%20-%20FAAS%20Corporate%20Reporting%20Survey%202016%20(2).pdf

[38] Parmenter D. Key Performance Indicators: Developing, Implementing, and Using Winning KPIs. 2nd ed. John Wiley & Sons; New Jersey 2015. p. 7

[39] Gökten S. Entegre Raporlama Yaklaşımı için Uygulamaya Yönelik Sistematik Bir Öneri. World of Accounting Science. 2016;**18**(4):741-765

[40] Warren Jr JD, Moffitt KC, Byrnes P. How big data will change accounting. Accounting Horizons. 2015;**29**(2):397-407

[41] Eccles RG, Krzus MP. The Integrated Reporting Movement: Meaning, Momentum, Motives, and Materiality. John Wiley & Sons; New Jersey 2014

[42] KPMG. Have you looked at Finance & Accounting in the Cloud? Perhaps You Should [Internet]. 2012. Available from: https://home.kpmg.com/content/dam/kpmg/pdf/2013/03/have-you-looked-at-finance-accounting-cloud.pdf [Accessed: 21 February 2017]

[43] Brandas C, Megan O, Didraga O. Global perspectives on accounting information systems: Mobile and cloud approach. Procedia Economics and Finance. 2015;**20**:88-93

[44] Strauss E, Kristandl G, Quinn M. The effects of cloud technology on management accounting and decision-making. Management and Financial Accounting Report. 2015;**10**(6):1-12.

[45] Elliott RK. The third wave breaks on the shores of accounting. Accounting Horizons. 1992;**6**(2):61

[46] Baldwin AA, Brown CE, Trinkle BS. Opportunities for artificial intelligence development in the accounting domain: The case for auditing. Intelligent Systems in Accounting, Finance and Management. 2006;**14**(3):77-86

[47] Venture Scanner. Artificial Intelligence [Internet]. Available from: http://www.venturescanner.com/artificial-intelligence [Accessed: 21 February 2017]

[48] IBM. News Release [Internet]. 2016. Available from: https://www-03.ibm.com/press/us/en/pressrelease/49274.wss [Accessed: 21 February 2017]

[49] IBM. IBM Watson [Internet]. Available from: https://www.ibm.com/watson/?lnk=404 [Accessed: 21 February 2017]

[50] Kira. Deloitte [Internet]. Available from: http://info.kirasystems.com/partners-deloitte-alliance [Accessed: 21 February 2017]

[51] Smacc. AI-Enabled Financial Management [Internet]. Available from: https://www.smacc.io/en/ [Accessed: 01 March 2017]

http://dx.doi.org/10.5772/intechopen.69264

[52] O'Leary DE, O'Keefe RM. The impact of artificial intelligence in accounting work: Expert systems use in auditing and tax. Ai & Society. 1997;**11**(1-2):36-47

[53] Connell NAD. Expert systems in accountancy: A review of some recent application. Accounting and Business Research. 1987;**17**:221-233

[54] Brown CE, Coakley JR. Artificial neural networks in accounting and finance: Modeling issues. International Journal of Intelligent Systems in Accounting, Finance and Management. 2000;**9**:119-144

[55] Parasut. Hakkimizda [Internet]. Available from: https://www.parasut.com/hakkimizda [Accessed: 03 March 2017]

[56] Canton J. Welcome to the fast future: Insight into the CPA of the future 2015 study. CPA.com Study. http://globalfuturist.com/wp-content/uploads/FastFuture-Study.pdf 2015 [Accessed: 03 March 2017]

[57] Sankar U. Journal of Accountancy. Trends that will Shape the CPA profession in 2016 [Internet]. 2016. Available from: http://www.journalofaccountancy.com/newsletters/2016/jan/2016-trends-accounting-profession.html [Accessed: 03 March 2017]

Chapter 13

Graphical and Textual Presentations in Financial Reports

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Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/68038

Abstract

The use of separate graphs and texts to disclose information is a frequent occurrence in corporate annual reports. Multiple sources of information does not enhance understanding of users of financial statements. This chapter compares spatially separated text and graphs with integrated presentations that aim at bringing text and graphs as close as possible to each other. The chapter begins by illustrating the concept of split attention. Cognitive load arises when disparate sources of accounting information need to be mentally integrated by users. An experiment using separate text and diagrams is then presented to demonstrate how participants can deal with cognitive overload when reading split-attention material. Using two instructional design formats, the split-attention format and the integrated format, first-year accounting students were used as surrogates for financial report user groups such as employees and shareholders. The presence of the split-attention effect in the financial accounting material was established. Effective use of text and diagrams in integrated reporting helps integrated thinking and assists the interconnectedness of information. The findings suggest that redesigning financial reports by integrating text and diagrams may make effective use of the available cognitive resources and possibly enhance investors and other stakeholders' decision-making process.

Keywords: accounting, cognitive load theory, financial reports, graph, split-attention

1. Introduction

Companies are increasingly using graphs, text and other visual representation methods to communicate financial information to their stakeholders. But do these forms of presentation enhance users understanding of the annual reports? In most cases, these companies augment the graphs with related notes below, above or on the side of the graph. While there is now a sizeable body of research on different aspects of presentations, such as the use of graphs in annual reports, graphs versus tables and numerous other narratives [1, 2], graphs and text proximity in corporate reports have received very little attention. Yet, graphs and texts are increasingly being used in annual financial reports. The purpose of the present chapter is to review the split-attention effect and present an experiment on graphs and text proximity, in order to identify a presentation format that enhances user understanding of corporate annual financial statements.

It is frequently suggested that graphs can aid the communication of accounting information [3]. Moreno et al. [4] study involving electrical engineering students as subjects revealed some interesting observations regarding concrete and abstract representations. Participants received instructions using abstract representations (e.g. electrical symbol for light bulbs), concrete representations (e.g. light bulbs) and both concrete and abstract representations. Moreno et al. [4] stated that in the past research studies, concrete representations had been shown to distract from learning compared to abstract representations. However, Moren, Ozogul and Reisslein's new study showed that the greatest learning occurred when a combination of concrete and abstract representations was used. Moren et al.'s study [4] revealed that visual representations play a critical role in learning and that visual representation is a vital tool of experts in problem solving and reasoning.

It is also suggested, however, that graphs can be misleading [5]. For example, graphs have been found to intentionally introduce distortions into the communication process, which misleads users of financial reports. Distortion of information is introduced by selectivity of some form and non-compliance with the principles of graph construction. This may involve a decision on whether or not to use graphs, and if they are used, a further selectivity could be in the particular choice of financial variables graphed [5]. Another distortion of graphs in annual reports is to reflect only one or two indicators, particularly favourable to the company instead of a number of indicators [6]. There are many ways a graph can be altered and would have the potential to affect users' perceptions mainly for the purpose of serving managerial interests rather than user interests [7]. Distortion of graphs results in the message conveyed as no longer being unbiased and neutral.

The effect of graph and text proximity in the context of financial reporting is largely unexplored. What is known is that graphs can aid the communication of accounting [8] and that preparers of accounting reports may intentionally create graphs that are misleading. The purpose of the present chapter is to conduct an experiment that compares spatially separated text and graphs with integrated presentations that aim at bringing text and graphs as close as possible to each other within the context of corporate annual reports. The three main research objectives are (1) to establish the existence of split-attention effect on graph and text presentations, (2) to investigate whether the integrated format group will outperform students in the split-attention format group on recall and transfer test items and (3) to investigate whether students in the integrated format group will report higher effort (cognitive load) than students in the split-attention format. Superiority of the integrated format will favour bringing text as close as possible to the related parts of the diagram in corporate financial reports.

http://dx.doi.org/10.5772/68038

The remainder of this chapter contains four sections. In the first section, we review the split-attention effect. Section 2 provides the study context. An outline of the experiment is given in the third section. Our results are presented in the final section, together with a discussion of the implications of our results.

2. Split-attention effect

Split-attention effect asserts that when designing instructional materials, it is important to avoid formats that require learners to split their attention between multiple sources of information. Existence of split attention would require the learner to mentally integrate the different sources of information, which has a negative effect on learning [9]. Since 1988, research into split attention investigated the effectiveness of worked examples as they had proven to be highly effective for learning algebra [10]. However, neither worked examples nor highly directed but not a full worked example (guided solutions) enhanced students' performance when compared with the conventional problem-solving strategies [11]. This led to the conclusion that the format of the worked examples, a diagram and separate text in the form of solution steps (such as that shown in **Table 1**), must increase cognitive load.

Over the years, presenting text and diagrams together rather than apart in instructional material has repeatedly been shown to enhance learning when compared to studying separate

Balance sheet		
Description	**Amount**	
Cash at bank	XX	**Assets** are resources controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. These economic benefits can be tangible (having physical characteristics) such as land buildings and equipment or intangible (assets without physical existence) such as legal claims or patent rights.
Accounts receivables	XX	
Building	XX	
Total assets	**XXXX**	
Liabilities	**XX**	
Accounts payable	XX	
Mortgage payable	XX	
Total liabilities	**XXXX**	
Net assets	**XX**	
EQUITY	XX	
XY, Capital	XX	
Total equity	**XXXX**	

Table 1. Format of the balance sheet normally found in textbooks.

text and diagrams [11]. **Table 1** illustrates split attention in financial accounting. The diagram is above the text which outlines the solution to the problem and in processing the information, the learner has to understand the solution steps presented as text and then match the steps with the diagrammatic representation [12]. This process requires mentally combining the two sources of information and a considerable amount of cognitive resources, not necessarily directly related to learning. Very little resources are then available for learning. In the case of undergraduate accounting learners, this is particularly important as most of them are meeting the instructional material for the first time and lack the proper schemas to integrate new information with their previous knowledge [13]. In the integrated worked example (see **Table 2**), the student focuses on the relational dimensions of the problem because the learners' mental capacity is released from the need to search and match the solution steps and link with the diagram [9].

Several studies have found that the searching and matching required by split-attention instructional material is inefficient and has a negative effect on learning [11, 14]. During their studies, students are likely to encounter various texts separated from diagrams in textbooks and other accounting instructional material. Integrating spatially separated information into successful problem solutions can be difficult [10].

Split-attention effect is guided by cognitive load theory (CLT). The use of CLT, as part of accounting instructional design, is compelling due to the robust way in which its general principles apply to a wide variety of instructional settings. There are various reports where

Balance sheet		
Description	**Amount**	
Cash at bank	XX	**Assets** are resources controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. These economic benefits can be tangible (having physical characteristics) such as land buildings and equipment or intangible (assets without physical existence) such as legal claims or patent rights.
Accounts receivables	XX	
Building	XX	
Total assets	**XXX**	
Liabilities	**XX**	
Accounts payable	XX	
Mortgage payable	XX	
Total liabilities	**XXX**	
Net assets	**XX**	
EQUITY	XX	
XY, Capital	XX	
Total equity	**XXX**	

Table 2. Integrated format of the balance sheet.

http://dx.doi.org/10.5772/68038

CLT-derived principles have improved learning outcomes [9, 15, 16]. Even though there is extensive empirical application of CLT principles in other disciplines, its use in accounting has been very limited.

3. Importance of split-attention effect to financial reports

Financial reports often consist of a statement of financial position, statement of comprehensive income, statement of cash flows, statement of changes in equity and notes to financial statements. Knowing basic principles in accounting provides the basis for understanding and interpreting accounting information, which is required in later years [10]. The basic principles comprise essential foundation for future applications by practitioners or for further study in the field of accounting. One of the main focuses of the financial statements is to illustrate how accounting information may be used in the decision-making process [16].

Financial reports usually have numerous diagrams and text [17]. A statement of financial position shows the state of a business on a particular date and is the result of a complex and long recording process that involves a record of transactions, posting to the respective ledger accounts and the preparation of a trial balance [18]. The users of the statement of financial position tend to regard it as proof of both the difficult nature of accounting and the technical competence and reliability of the accountants and auditors involved [9]. One of the reasons for the complication is the way the statement of financial position is presented. In most cases, the statement of financial position consists of a diagrammatic presentation followed by an explanation of each of the components, thus evoking the split-attention effect. A similar type of presentation is used for other financial statements, such as the statement of comprehensive income and the cash flow statement. As has been stated in the preceding sections, such separate text and diagrams require split attention, which does not enhance learning [4].

3.1. Integrated thinking, integrated reporting and integrated presentations

Integrated thinking is referred to as the "active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organisation uses or affects. Integrated thinking leads to integrated decision-making and actions that consider the creation of value over the short, medium and long term" [19]. Integrated thinking is a key feature driving integrated reporting.

Proponents of integrated reporting suggest that traditional financial reporting has not kept pace with the changes in macro-economic value experienced over the years and that IR provides a richer picture [20]. Others argue that IR provides a concise, clear representation of how an organisation creates value and reveals sustainability [21]. The IR report provides information on financial and non-financial performance in a single document, showing the relationship between financial and non-financial performance and how these inter-related dimensions are creating or destroying value for shareholders and other stakeholders. Integrated reporting brings together information about an organisation's governance, performance, strategy and prospects in a way that it reflects the social, commercial and environmental context within which it operates [20]. Such IR supports better integrated thinking, which has the potential to be complimented by integrated text and diagrammatic presentations. Integrated thinking has a broader appeal than the traditional business decision-making, which tends to focus on short-term financial outcomes. The IR framework elicits multiple representations of information about organisational governance, strategy, performance and prospects in order to accomplish integrated thinking. Consistent with integrated thinking, the use of integrated text and diagrams makes such presentations more concise, clear and comparable.

Promoting user understanding of financial reports can only be brought about by well-designed text and diagrams. Providers of financial statements have attempted to expose users to a variety of presentations and in various ways, including online, to the extent of financial information overload. Information overload has widely been recognised to have adverse effects on decision quality [16]. To help overcome the information overload, users have to be exposed to alternative presentations, which have the potential to aid better understanding and decision-making. As illustrated, many financial statements require users to unnecessarily split their attention between diagrams and text. An alternative presentation, called the integrated format, is to have related diagrams and text as physically close as possible to avoid the extensive search-and-match behaviour. Various research studies have shown that text and diagrams need to be integrated in order to overcome the negative effects on understanding caused by split-attention design [22]. Consequently, this chapter presents an investigation on whether users (represented by students) can benefit more from integrated financial statements.

4. Study context

This study was conducted with accounting students at an Australian university. Undergraduate first-year students were used as suitable surrogates for employees, shareholders and other stakeholders as prior knowledge of accounting is not usually a prerequisite for users of financial reports. Prior research has demonstrated that studies requiring no prior knowledge can be completed by the surrogates [23]. According to Trotman [23], students may be suitable surrogates where the research does not rely solely on prior learning and the task can be completed by the surrogates. Liyanarachchi [24] supports their use in decision-making studies and suggests that maintaining the realism of experiments and replication of prior results is more critical with respect to generalisability than the use of real subjects. In the experiment reported in the current study, students were used as surrogates for the users of financial reports. Participants are assigned to two different formats in order to examine the effect of these formats on their understanding of financial reports. The first instructional format is split attention which is normally found in financial reports. The second is the integrated format, which involves bringing text and diagrams as close as possible to each other. The redesigning of financial reports to comply with integrated format was created in order for comparisons to be made.

The experiment sought to test the hypothesis that students in the integrated format would perform better than students in the split-attention format. Participants were randomly assigned to one of the two conditions. In the split-attention format, instructional materials were formatted in the same way as in the published financial statements. In the integrated format, the content was formatted in a different way to decrease split attention by bringing the diagram and text as close as possible to each other. Random assignments ensured that each student had an equal opportunity of being chosen to participate in the study [25]. A computerised random creation of participant numbers and allocation to groups based on the numbers generated were undertaken. The first 41 students were allocated to the split-attention group and the next 40 students were allocated to the integrated group.

Subjective rating scales were used to assess cognitive load and are the preferred method in most recent research. The rating of perceived task difficulty, which asks learners to rate the perceived difficulty of a task on a 9-point Likert scale, ranging from "very, very easy" to "very, very difficult," was used [26]. It was chosen as it is widely used in various cognitive load research studies since the early development of CLT [27]. Students rated task difficulties, for example, "How much mental effort did you invest to answer this question?" at the end of each test question. The rating scale consists of a line marked with nine anchor points, each accompanied by a descriptive label indicating a degree of effort. After every task in the test phase, students had to rate how much mental effort they invested.

How much mental effort did you invest to answer this question? (Please circle)

1----------2----------3---------4----------5-----------6---------7-----------8---------9

The tasks selected were diagrams and texts about ratios and the accounting equation. These tasks were selected because they have separate text and diagrams and were likely to exhibit clear associations with financial statements normally presented to users of financial statements.

5. Experiment

A pre-test questionnaire was first used to collect information about each student's age, gender, knowledge of accounting and language. In total, 45% female and 55% male students were randomly assigned to one of the two conditions. Thirty-six students in the first group were the split-attention group (Group 1: 13 females and 23 males, and M = 21 years old and standard deviation (SD) = 3.85) and 40 students were in the integrated group (Group 2: 14 females and 21 males, and M = 20 years old and SD = 1.84). The students were not paid and participated voluntarily in the study. With regard to performance, students in the integrated format group (Group 2) would be expected to outperform students in the split-attention format group (Group 1). This is due to the integrated materials requiring less mental effort than those in the split-attention group. This expectation follows from the fact that split attention requires that more working memory resources be utilised.

Students used pen and paper-based materials. In total, they were three pages of recall and transfer test questions to be answered which included a requirement to rate mental effort after answering every test question. Initially, participants reported their understanding of ratios and the accounting equation on a 5-grade category ranging from very poor to expert level. A one-way analysis of variance (ANOVA) was conducted on pre-test responses of age and basic knowledge of accounting to explore differences across the two groups involved in the experiment. Means and standard deviations are shown in **Table 3**. The one-way ANOVAs for pre-test questions demonstrate no significant main effect of group for age ($F(1, 70) = 0.851$, $p = 0.562$) and knowledge of accounting ($F(1, 70) = 0.655$, $p = 0.421$), thus enhancing the likelihood that any significant differences identified later are more likely due to the different treatment conditions.

5.1. Procedure

The demographic information was collected by using a pre-coded number on the learning materials and question papers for the split-attention group and the integrated group in order to guarantee anonymous data collection. Students were told that their information would be treated as confidential. Participants were then given the information sheets and consent forms, and they all indicated their agreement by signing the form.

A pilot study aimed at refining instructional guidance was conducted before the experiment. The pilot study informed the time that was to be allowed for each phase of the studies. Two students took part and they did not participate in the main experiment. Based on the pilot study, a time of 45 minutes for completion of the experiment was determined.

Instructional format	Mean rating	Standard deviation
Test phase–recall		
Split attention (*n* = 36)	57.61	12.13
Integrated (*n* = 35)	63.42	11.77
Test phase–transfer		
Split attention (*n* = 36)	31.47	20.54
Integrated (*n* = 35)	52.40	21.99
Learning phase		
Split attention (*n* = 36)	6.42	1.59
Integrated (*n* = 35)	4.74	1.92
Test phase–recall		
Split attention (*n* = 36)	6.55	0.96
Integrated (*n* = 35)	5.22	1.24
Test phase–recall		
Split attention (*n* = 36)	5.39	0.93
Integrated (*n* = 35)	4.37	1.33

Note: Actual raw score ranges were 0–28 for recall and 0–11 for transfer. The actual mental effort ratings were from 0 to 9 for cognitive load.

Table 3. Means and standard deviations for learning and test-phase mental effort ratings.

http://dx.doi.org/10.5772/68038

The experiment involved three phases. During the first phase, students completed their gender, language, knowledge of accounting and their age. The completion of this section took 10 minutes. During the next phase (learning phase), the participants were given 15 minutes to analyse the learning materials given to them. After the second phase, the test which consisted of transfer and recall question items was administered. The students were given 45 minutes to complete the test.

5.2. Results and discussions

5.2.1. Performance measures

A one-way ANOVA was conducted on test performance scores to explore differences between the two groups involved in the first experiment. Means and standard deviations are shown in **Table 3**. A one-way ANOVA for recall scores showed a statistically significant main effect for the recall test items ($F (1, 70) = 4.206$, $p < 0.05$, large effect size $d = 0.48$) [28]. The mean recall scores showed that the integrated group had higher scores than the split-attention group. The one-way ANOVA for transfer questions also demonstrated a significant main effect of group ($F (1, 70) = 17.185$, $p < 0.05$, and effect size $d = 0.98$). The integrated format group performed significantly better than the split-attention group.

5.2.2. Mental effort rating on instruction

The results from the one-way ANOVA for mental effort invested in the learning phase are shown in **Table 3**. They indicate significant differences across the two formats ($F (1, 70) = 16.07$, $p < 0.05$, with a large effect size, $d = 0.95$) [28]. Consistent with predictions, there were large and significant between-group differences of mean mental effort rating on learning results. The integrated group reported lower levels of cognitive load than the split-attention group.

A one-way ANOVA was conducted on the mental effort that the participants provided after each test question. **Table 3** shows the mean ratings and standard deviations for the ratings of the test phase. Again, there were large and significant between-group differences on mean recall results ($F (1, 70) = 25.349$, $p < 0.05$, large effect size, $d = 1.19$). Transfer items also revealed a significant effect between groups ($F (1, 70) = 13.972$, $p < 0.05$, large effect size, $d = 0.88$). The ratings for both the learning phase and the transfer phase showed that the integrated group reported a lower perceived amount of mental effort than the split-attention group.

5.2.3. General discussion

The experiment was designed to test whether participants in the integrated group would perform better than those in the conventional split-attention group. In addition, transfer test items were designed to establish whether the effect could be obtained with new, different and slightly more challenging questions. Students in the integrated group demonstrated higher performance than students in the split-attention group for both recall and transfer tasks.

As expected, in the experiment, students in the integrated group reported lower perceived cognitive load than students in the split-attention format group. Students in the split-attention group performed badly as compared to the integrated group in both the recall and transfer tasks. This was probably caused by requiring the split-attention group to refer to multiple sources of text and diagrams. This finding possibly illustrates that financial reports that integrate text into the diagrams in a manner which facilitates understanding may be more beneficial than split-attention financial reports. Apparently, the processes required to work during the test phase demanded different amounts of mental effort in all conditions. When the data are differentiated for recall and transfer, the results still revealed the same tendency, with the integrated group reporting the lowest level of cognitive load.

The major finding from this study relates to the participants' preference for integrated accounting material whether they were answering recall or transfer tasks. This is largely similar to financial reports which require users to split their attention between diagrams and text. Financial reports, similar to the text and diagrams used in this study material, do indeed demonstrate such split-source formats, and this has a negative effect on users of these reports. The most interesting outcome to emerge from this experiment is the consistency with which the integrated group outperformed the split-attention group. The participants in the integrated group did in fact maintain their high performance and reported lower cognitive load under both recall and transfer tasks. The superiority of integrated material seems to support Moreno et al.'s study [4] in engineering, which showed that the greatest learning occurred when a combination of concrete and abstract representations was used.

A further explanation of the results is that the superiority of the integrated condition might have resulted from the text which was already as close as possible to the relevant aspects of the diagram, which enhanced the students' learning. This is consistent with studies by Tindall-Ford et al. [29].

5.2.4. Implications of the findings and limitations and suggestions for future research

As discussed previously, the fundamental purpose of redesigning financial reports is to make an effective use of the available cognitive resources and possibly enhance investors and other stakeholders' decision-making process. The study reported in this chapter provides a first trend in this direction by reporting significantly better performance in the integrated format groups than in the split-attention format groups.

As demonstrated, the integrated format requires significantly lower cognitive load on the user of financial reports than the split-attention format. The evidence of the effectiveness of integrated financial materials adds to research into this effect in other domains. By demonstrating the very effective consequences of integration, the experiment suggests that preparers of financial statements should consider shifting focus away from "split-attention" format towards "integrated" format.

Integrated reporting has been heavily promoted during the past decade, as this chapter has demonstrated. It must be recognised that the concept demonstrates the linkages between an organisation's strategy, governance and financial performance and the social, environmental and economic context within which it operates. Such a framework would involve, in most instances, text and graphical presentations which have to be combined in order to achieve "integrated thinking" [30]. Embedding integrated text and diagrams into the integrated reports would make the reports concise and clearer, facilitating the integrated thinking process.

There are a few important limitations of the chapter presented. Over the years, the measurement of mental effort has been a challenge [27]. The specific type of mental effort was not directly measured; future research might attempt to determine the precise type of mental effort reported by the students. In addition, there are possibly other factors that might have influenced students' performance and mental effort ratings. These could be emotional stress, levels of motivation and other non-cognitive factors may have confounded with the two cognitive load components. The use of students as surrogates may be another limitation. In this study, it appeared reasonable to use first-year undergraduate students as they may be perfect substitutes for employees and other stakeholders who may not be experts in accounting. Further research may use employees and other stakeholders. Finally, although split attention is found in ratios and T accounts instructional material, future research may use authentic financial reports that are given to employees and shareholders.

The experiment in this chapter has demonstrated to benefit from integrated financial reports and manage the cognitive load of the users of financial statements. Most importantly, the chapter has shown that such integrated presentations may be useful even for transfer tasks. The future research direction may include investigation of cognitive load measurement, in particular the measurement of each type of cognitive load.

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References

[1] Volkov A., Laing G. Assessing the value of graphical presentations in financial reports. Australasian Accounting Business and Finance Journal. 2012;**6**(3):85-108.

[2] Eisl C., Falschlunger L., Hofer P., Jungert M. Reporting design – a systematic literature review. Journal of Finance and Risk Perspectives. 2013;**2**(2):27-47.

[3] McCann L.M. Thinking outside the ledger: a visual representation project for accounting students. The Accounting Educators' Journal. 2016;**26**:61-84.

[4] Moreno R., Ozogul G., Reisslein M. Teaching with concrete and abstract visual representations: effects on students' problem solving, problem representations, and learning perceptions. Journal of Educational Psychology. 2011;**103**(1):32-47.

[5] Beattie V., Jones M.J. Corporate reporting using graphs: a review and synthesis. Journal of Accounting Literature. 2008;**27**:71-110.

[6] Burgess D.O., Dilla W.N., Steinbart P.J., Shank T.M. Does graph design matter to CPAs and financial statement readers? Journal of Business & Economics Research. 2008;**6**(5):111-124.

[7] Clatworthy M.A., Jones M.J. Financial reporting of good news and bad news: evidence from accounting narratives. Accounting and Business Research. 2003;**33**(3):171-185.

[8] McCann L.M. Thinking outside the ledger: a visual representation project for accounting students. The Accounting Educators' Journal. 2016;**26**, 61-84.

[9] Sithole S.T.M., Abeysekera I. Accounting education: a cognitive load theory perspective. New York, NY: Taylor and Francis; 2017, 152 p.

[10] Sithole S.T.M. The effects of presentation formats on understanding financial accounting: an experimental study. Australasian Accounting Business & Finance Journal. 2016;**10**(2):76-92. doi:10.14453/aabfj.v10i2.5

[11] Sithole S.T.M., Chandler P., Abeysekera I., Paas F. Benefits of guided self-management of attention on learning accounting. Journal of Educational Psychology. 2017;**109**(2):220-232. doi:10.1037/edu0000127

[12] Cooper G., Sweller J. The effects of schema acquisition and rule automation on mathematical problem-solving transfer. Journal of Educational Psychology. 1987;**79**:347-362.

[13] Tarmizi R., Sweller J. Guidance during mathematical problem solving. Journal of Educational Psychology. 1988;**80**:424-436.

[14] Morrison B.B., Dorn B., Guzdial M. Measuring cognitive load in introductory CS: adaptation of an instrument. In: Proceedings of the Tenth Annual Conference on International Computing Education Research; 2014, pp. 131-138. doi:10.1145/2632320.2632348.

[15] Agostinho S., Tindall-Ford S., Bokosmaty S. Adaptive diagrams: a research agenda to explore how learners can manipulate online diagrams to self-manage cognitive load. In: Huang W., editor. Handbook of human centric visualization. New York: Springer; 2014, pp. 529-550. doi:10.1007/978-1-4614-7485-2_21.

[16] Sithole S.T.M. Effect of instructional design on learning the accounting equation in an introductory accounting course. Journal of Accounting and Taxation. 2015;**7**(8):137-142. doi:10.5897/JAT2015.0192.

[17] Warren D.L., Young M.N. Integrated accounting principles: a best practices course for introductory accounting. Issues in Accounting Education. 2012;**27**(1):247-266. doi:10.2308/iace-50106.

[18] De Lange P., Jackling B., Gut A. Accounting graduates perceptions of skills emphasis in undergraduate courses: an investigation from two Victorian universities. Accounting and Finance. 2006;**46**(3):365-386. doi:10.1111/j.1467629X.2006.00173.x.

[19] IIRC. International <IR> Framework [Internet]. 2013. Available from: http://theiirc.org [Accessed 18 February 2017]

[20] Owen G. Integrated reporting: a review of developments and their implications for the accounting curriculum. Accounting Education. 2013;**22**(4):340-356. doi:10.1080/09639284.2013.817798

[21] Adams C.A. Understanding integrated reporting: the concise guide to integrated thinking and the future of corporate reporting. Oxford: Do Sustainability; 2013, 80 p.

[22] Tindal-Ford S., Agostinho S., Bokosmaty S., Paas F., Chandler P. Computer based learning of mathematical concepts by studying instructor-managed or self-managed split-attention materials. Education Technology and Society. 2015;**18**(40):88-89.

[23] Trotman K. Research methods for judgement and decision making studies in auditing (3rd ed.). Blackburn: Victorian Printing; 1996, 155 p.

[24] Liyanarachchi G. Feasibility of using student subjects in accounting experiments: a review. Pacific Accounting Review. 2007;**19**(1):47-67.

[25] Gall M.D., Gall J.P., Borg W.R. Educational research: an introduction (8th ed.). New York: Allyn and Bacon; 2006, 704 p.

[26] Paas F., Tuovinen J., Tabbers H., Van Gerven P.W.M. Cognitive load measurement as a means to advance cognitive load theory. Educational Psychologist. 2003;**38**(1):63-71. doi:10.1207/S15326985EP3801_8.

[27] Clark R., Nguyen F., Sweller J. Efficiency in learning: evidence-based guidelines to manage cognitive load. San Francisco: Pfeiffer; 2006, 416 p.

[28] Cohen J. Statistical power analysis for the behavioural sciences (2nd ed.). New Jersey: Lawrence Erlbaum Associates; 1988, 567 p.

[29] Tindall-Ford S., Agostinho S., Bokosmaty S., Paas F., Chandler P. Computer-based learning of geometry from integrated and split-attention worked examples: the power of self-management. Journal of Educational Technology & Society. 2015;**18**(4):89-99.

[30] Adams S., Simnett R. Integrated reporting: an opportunity for Australia's not-for-profit sector. Australian Accounting Review. 2011;**21**(3):292-301.

Chapter 14

Historical Development of Government Accounting

Mihriban Coşkun Arslan

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.69121

Abstract

Government accounting aims at preventing waste in government services and establishing a balance between optimal expenditure and services by managing government assets and government sources in the most efficient way. This balance can be established only by obtaining complete and accurate information from government accounting system on time. Since the users have a low level of knowledge needs in government accounting system, it has been recorded for long years in a cash basis manner. However, as the government's area of operation expanded and the needs increased, it became obvious that cash basis system had lacking parts. So it started to focus on recording financial transactions and financial reporting. These lacking parts in the accounting system tried to be overcome through a new regulation by focusing on the areas where cash basis accounting system was insufficient; and a change was experienced with regard to applying the accrual basis in the areas of government accounting and financial reporting. This study aims to explain the historical development of government accounting by applications in countries and especially by detailed expressions for Turkey. As a result of the literature review and the examination of countries' government accounting practices, it has been determined that the government accounting practice has made the correct transition from cash basis to accrual basis.

Keywords: government accounting, cash basis government accounting, accrual government accounting, historical development of government accounting, applications of government accounting in country level

1. Introduction

As the economic boundaries between the countries started to be removed through globalization, the concept of an international competition emerged between them, and this concept forced the countries to experience an economic reconstruction. It also brought the necessity of the revision of the government's role and share in economic life as well as a reconstruction in government finance management which is appropriate for the new conditions within the framework of these developments. Reconstruction of government accounting systems is of high importance among reform movements in government finance management systems. Because accounting system is very important to establish financial transparency in government management, both for helping government managers to make correct decisions under the liability of accountability and about how the government sources are used in this area. Changes in the concept and perception of government, changes in the quality of goods and services, changes in government economy and changes in government budget systems had important effects on the development and importance of government accounting.

Government accounting used to monitor revenues and expenses, which were available only in the budget and excluded the payables, receivables and assets of the government as there was a limited area of operation for the government previously. As the area of operation of the government was expanded, government accounting became an accounting system, which monitored revenues and expenses determined through budget as well as the payables, receivables and assets of the government. However, there is currently no government accounting system, which is applied across the world. Government accounting systems also experienced some changes depending on the changes of the era. The need for knowledge regarding financial decisions and financial policies of the governments was relatively much more limited in the past, which led to the creation of simple and budget-oriented accounting systems. On the contrary, modern concept of government accounting goes far beyond being budget oriented and considers the changes in assets and includes cash flows into the accounting system.

For long years, government accounting systems have been recorded in a cash basis manner which includes allocations given by the budgets, expenditures from these allocations, total revenue for financing the expenditures, and some other information that may be needed and which principally represents for the record of collection of revenues and payment of expenditures. However, this budget-oriented recording system became insufficient to fulfill the needs of government management over time, and so, some new experiences were started to be looked for in the area of government accounting. Thus, there has been some studies recently to develop an accrual recording system which is recognized by all financial transactions which have already emerged or will emerge in the future including tangible assets of the government. In the selection of accounting systems which will be published in government area, there is a movement on a platform with cash basis accounting at one of the edges and accrual accounting at the other edge. This platform also includes the principle of undertaking, modified cash basis, and modified accrual basis.

This section explains how government accounting should be defined, what kind of a content it has, which important aspects it has for the country's economy, as well as the emergence and changes it has within its historical process in order to put forward the importance of government accounting for government managements and economies. It also evaluates studies which are carried out in different countries in the areas of government accounting and their reflections in Turkey as well as the studies which are carried out in Turkey.

http://dx.doi.org/10.5772/intechopen.69121

2. Government accounting

Given that accounting is the recording, classifying, and reporting of financial transactions in monetary terms, this definition becomes valid for private sector. If the matter is government accounting, there is a different definition because the aim of government accounting ranges from being an instrument of financial management and control to the planning of national economy. Government institutions and organizations within the scope of government accounting record their transactions as efficiently as possible and facilitate accountability. This section explains how government accounting should be defined, what kind of a content it has, which important aspects it has for the country's economy, as well as the emergence and changes it has within its historical process in order to put forward the importance of government accounting for government managements and economies.

2.1. Definition, scope, and aim of government accounting

Government accounting is a process which enables recording, making decision analysis, classification, summarization, notification, and interpretation of government financial knowledge as well as including and reflecting all transactions which include purchasing, transferring, and allocation of government property in general [1].

When government accounting is described within the framework of financial accounting, it can be defined as recording and classifying all the monetary activities, assets, and liabilities of the government, which can be financial partially or wholly and reporting them to the authorized entities and institutions. Historical development of both financial and government accounting is in parallel with the political and economic development levels of the countries, because there are some changes in the concept of government management as a result of differentiation in economic and political organization types of the countries.

As the political regimes started to change, there were some important developments observed in the concept of government as well. Developments in government accounting also improved in accordance with these developments arising in the concept of government because government accounting is not an aim but an instrument for government management. Government activities started to change in parallel with the developments in the world, and traditional concept of government experienced a change. Within this process, firstly the concept of government budget emerged, and then the concept of accounting developed in budget-oriented manner. So government accounting system became a derivative of government budget system [2]. In this regard, the concept of government accounting is described in a budgetary point of view as follows: an accounting technique, which audits whether government activities are fulfilled in accordance with the determination of legislative power within time periods determined by budget laws or not, suggests the expenditures of government services and throws light upon forward decisions for the management [3].

Government accounting plays a key role in government finance management. Importance of government accounting lies behind the fact that countries trying to restructure government managements start their reforms by making adjustments in their accounting systems and making their systems to have the competency of producing more accurate, timelier, and more reliable knowledge [2]. Government that is liable to provide government services has to monitor government expenditures efficiently and account for it as well. It is not only the government expenditures that the government accounts for, but also has to keep transferred assets and observe any changes in their values [4].

Scope of government accounting is the general administration. Financial and nonfinancial government corporations compose the government sector in addition to general administration. However, these corporations are outside the scope of government accounting because they aim at making profit through their economic activities by producing goods and services in accordance with the accounting and reporting principles of private law for the market. So government accounting should aim at creating a framework which is practical for making comparisons with common accounting and reporting standards as well as consolidating them in central administrations, local administrations, and social security institutions which are included in the scope of general administration [5].

Issues which are handled based on the definition of government accounting are of high importance for the institutions and organizations which are included in government accounting. If we do not address to accounting to include general government services, it has a very limited scope, and there will be no account unity in government sector. So we need to address to the concept of government accounting in a broad sense and define it as an accounting which uses government sources as much as possible and shows the records of all government institutions and organizations. Because goods, services, and sources of the government are produced and used by people who create this organization, so it is important to provide transparency and accountability for these people. Liability of accountability, which is defined as displaying how efficiently they (people who are allocated with sources and provided with authority in this process) use the sources and authorization, is also important for the society to provide confidence toward the government. It will be beneficial with regard to government finance management to provide account unity, information accuracy, and common financial reporting in the government sector through the concept of government accounting, which we handle in a way that we include all the government sectors, not just a part of it [6].

Government accounting fundamentally aims at carrying out an audit for the results of the activities of government institutions and other government-affiliated institutions within a calendar year to determine their conformity with budgeted revenues and expenses. In this regard, government accounting accurately determines revenue and expenses within a financial year and reports the activity results [7]. Government accounting, as an instrument of financial management, also aims at creating a basis for productivity analyses by suggesting the costs of government services. In other words, it determines whether government activities are rational or not [5].

In conclusion, government accounting, as an instrument of financial management and control, aims at monitoring yearly and year-end accruals of budgeted revenues and expenses within a financial year as well as assets and sources of the government and executive bodies in addition to reporting the budget application results and activity results of executive bodies for specific periods to the relevant authorities in a way that is appropriate for information

http://dx.doi.org/10.5772/intechopen.69121

needs in order to provide information to the government sector which is necessary for planning and managing national economy [7]. In this regard, it is required to have budgetary accounts, assets, and capital accounts within the scope of government accounting, so that it can come up as an instrument which provides necessary data to the government in making efficient financial and economic decisions [8].

Government needs accounting more than private enterprises do because aim of the government is not to make profit just as in private enterprises, but to fulfill the needs of the society and provide wealth for them. So the government needs to spend the revenue which is gained from various sources in the most efficient way and to present some specific information about them [11].

Recording and monitoring the studies and activities of the governments regarding financial and economic policies, government accounting is the most important element of the principle of financial transparency and financial accountability in this regard. It checks whether or not government sources are managed efficiently and economically, and it provides the most important data in internal and external audits. Existence of government accounting is of high importance to provide government services efficiently in governments. Government accounting system contributes to information production, making them available for usage, determination of economic policies, and solution of budgetary applications [3].

2.2. Government accounting systems

Emergence and development of government accounting date back to the fifteenth century. Recording and development of government accounting started with cameral accounting system. Government accounting recorded through cameral accounting system was budget-oriented and handled the collection and expenditure of revenues and expenses of the budget [9].

There is currently no government accounting system that is applied across the world. Government accounting systems also experienced some changes depending on the changes of the era. The need for knowledge regarding financial decisions and financial policies of the governments was relatively much more limited in the past, which led to the creation of simple and budget-oriented accounting systems. On the contrary, modern concept of government accounting goes far beyond being budget-oriented and considers the changes in assets and includes cash flows into the accounting system [10].

There are two fundamental points of view in the historical development process of government accounting systems as traditional and modern views. cameral accounting system and Schneider accounting system were shaped within the framework of traditional view, while Constante accounting system and logismography accounting system were shaped within the framework of modern view.

2.2.1. Traditional government accounting system

Traditional government accounting system suggests that government accounting fundamentally aims at monitoring, recording, and controlling government revenues and expenses within the framework of budgetary provisions and procedures. It is possible to regard this system as "budget accounting" where tangible assets and intangible assets of the government as well as receivables and payables of the government are not monitored and recorded within the framework of accounting. Traditional view suggests that receivables, payables, and assets of the government should be excluded from the scope of government accounting because of the reasons below [12]:

- There is no power of disposition on the assets of the government (purchasing, renting, etc.). There can be no disposition on such government properties as ancient arts, palaces, and museums just as on private properties. Assets cannot be recorded as they are not an instrument of change for the government.
- Assets of the government belong to the community, not the government. So government is liable to prevent these assets by considering the interest of the community. Therefore, patrimuan (government's assets and enterprise revenues) accounting cannot be recorded through the assumption that government has no assets; items in the assets cannot be indicated in the balance sheet.
- Development of an accounting system regarding government properties brings out the idea of expanding government's assets. Traditional system suggests that government's function is to manage the existing assets in the best way, not to increase patrimuan.
- It is not possible to monitor cash account and asset account of the government technically. So there are many problems while presenting the facts about the balance sheet of the government.
- Patrimuan accounting requires making up a balance sheet. Assets and receivables in the balance sheet of the government and payables in the liabilities are not the same securities, so they cannot be compared. It is not possible to determine the liquidity of some values in the assets.
- Since there are many problems while presenting the facts about the balance sheet of the government, it is not possible to monitor the values. Accordingly, amortizing and managing the assets remain as utopic ideas.

Traditional government accounting systems are classified as cameral accounting system and Schneider accounting system.

2.2.1.1. Cameral accounting system

Being one of the leading accounting systems, cameral accounting system was designed as an internal audit assistant composed of cash tangible assets and derivatives, which have no systematic sustainability in financial management of the royalties (assets and treasury administration). Being called as simple cameral accounting between 1500 and 1750, this concept included classifying the revenues and expenses, monitoring personnel changes, and indicating the status of active assets. In other words, the cash basis which included recognition of budget values was applied. Today's accounting was founded between 1750 and 1810 with regard to government accounting. In 1763, Johann Mathias Puechberg, Australian Emperor's advisor, put forward the principles of cameral system in his book *Introduction to Development of Cameral Accounting*

Applied by the Kingdom. Defined also by Hung, the German Cameralist, this system started to keep the records of daily logs and larger books which were divided into subsections after 1786. Some arrangements also took place to include revenues and expenses between the accounts. So accrual basis gained much more importance in accounting. After 1810, revenue reports were prepared in conformity with commercial accounting model with the help of result-oriented transactions in accounting. After 1910, executors created cameral accounts, which will be indicated in inventory for expense items with the existence of government enterprises [13].

Cameral accounting system is divided into two as old cameral accounting system and new cameral accounting system with regard to historical development of accounting systems. Old cameral accounting system can only monitor the cash. It is not possible to monitor changes in the assets of the government and status of its receivables and payables. In this system, accounts are divided into two as revenue accounts and expense accounts. In cameral accounting system, there are two books as cash book and detailed book of revenues and expenses. Cash book is recorded by the cashier based on the documents of revenues and expenses. Detailed book of revenues and expenses is also recorded by the cashier based on revenue collections and expense payments in accordance with the phases and provisions in the budget [14].

New cameral accounting system is an updated version of old cameral accounting system created in order to remove some lacking parts of the old cameral accounting system in that the old version could not audit itself or the cash records, and it could not indicate the accrual balances of revenues and expenses [15]. In the new cameral accounting system, cash book and detailed book of revenues and expenses are kept by different people, which is something that facilitates audit of the accounts, and it can indicate the account balance of revenues and expenses. The only thing that makes the system insufficient is that it does not show the changes in assets of the government just as in cameral system [7].

2.2.1.2. Schneider accounting system

Both old and new cameral accounting systems only include cash and budget transactions in government accounting while excluding clearing transactions as well as off-budget receivables and payables accounts. Schneider accounting system is a more developed cameral system applied in order to remove these lacking parts [9].

In Schneider accounting system, accounting records are recorded in accordance with bilateral recording method: payables are recorded in the relevant column in the section of expenses, and receivables are recorded in the relevant column in the section of revenues. The most important benefit of this system is that it includes cash transactions as well as clearing and off-budget receivables and payables accounts. Furthermore, it enables balance sheet adjustments by making loss and profit accounts [7].

2.2.2. Modern government accounting system

Modern government accounting system suggests that government accounting should include and recognize the payables, receivables, and assets of the government as well as its revenues and expenses on the contrary to traditional view, because it is inevitable for a government to have assets, payables, and receivables because of the expansion of its area of operation. So it is incorrect to regard government accounting just as a budget accounting. It also means giving insufficient answers to the needs of government management. Views of modern government accounting system that are contrary to the budget accounting-oriented approach of traditional view are justified as follows [12]:

- Government's assets belong to the community. However, it does not remove the liability of the government. All kinds of changes in the government's assets should be recorded with regard to the principle of accountability of the government.
- There have been substantial increase in the government's assets with the increase in government functions today. Increase in the government's assets is a result of modern government concept. So assets should definitely be reflected in the accounting for an incredible presentation of the balance sheet of the government.
- It is not a rational approach to conclude that the view suggesting that existing assets should be recorded will definitely lead to an increase in the assets.
- Technically, budget accounts and patrimuan accounts should be addressed in different groups. It is not impossible to solve this problem by making an adjustment while considering this distinction in the account plan.
- Firstly, it is necessary to consider government budget and commercial budget separately. Even though it is not necessarily possible to evaluate some items in government budget sufficiently, it is not an obstacle for including these items into the balance sheet. For example, there are some problems while recording such items as museums, historical assets, and palaces. In this case, recording should be started after determining a method which will reflect the reality explicitly.
- It is absolutely correct that there will be major problems in the application of patrimuan accounting in large-scaled countries. However, existence of these difficulties is not an obstacle for the execution of the application. Large-scaled countries will lead to increase in the number of activities and even some changes in patrimuan. So it is an inevitable obligation to use patrimuan accounting.

Modern government accounting systems are classified as Constante accounting system and Logismography accounting system.

2.2.2.1. Constante accounting system

This system includes both budget accounts and asset accounts. System was founded in accordance with the principle of recording revenues and expenses in the budget in accrual phase. All transactions are recorded in accordance with bilateral recording method. Cash book and detailed book of revenues and expenses are recorded in the system. Cash book is used for monitoring the cash movements as usual, while detailed book of revenues and expenses is used for recording revenues and expenses in the relevant accounts in accrual phase. This system includes budget accounts and asset accounts. Since tangible asset accounts are also used in this system, there can be decreases and increases in the tangible assets of the government [7].

While the system enables determination of changes (increases and decreases) in the government's assets, it can also calculate loss and profit at the end of the financial year. Loss and profit balances of all the accounts are recorded in the capital account at the end of the year. Net balance of this account represents for the net assets of the government [11].

2.2.2.2. Logismography accounting system

Logismography accounting system also includes budget accounts and asset accounts just in Constante accounting system. In this system, there is a perception that there is one owner and one manager of the government's assets; so two accounts are kept as the owner (government) account and officer (civil servants) account. Logismography system can deliver budget accounts and asset accounts any time. It is also important and outstanding in that it brings new concepts to government accounting. It is one of the most important systems as it considers the cost of government transactions [16].

Owner (government) account shows all the goods and assets as well as any changes on them including the government's assets. Owner account is an account group, which shows the government's assets through its records, tables, and books [11]. On the other hand, officer account was created in order to notify the status of the assets of civil servants who keep and manage these assets on behalf of the government in accordance with specific laws, decrees, and regulations. So accounts of these officers are collected under the account of government officers [15].

2.3. Recording methods in government accounting

When political power had only a few duties in national economy in the past, there was not much need for information for economic administration. But today, political powers in some developed countries shoulder important roles in order to facilitate socioeconomic development of their communities for a direct management of economy. So it is of high priority and high importance for an efficient government finance management to adapt to new conditions in obtaining the necessary information. It is obliged to create a method which can respond to changes arising out of lack of information on account of relationships among the nations [17].

It is impossible to compare or consolidate financial reports which are produced in different accounting and reporting methods. For example, it would not be possible to consolidate EU financial statements if EU member countries applied different accounting systems. So international organizations launched studies in order to create the same accounting standards across the world. During these studies, there has been a shift from cash basis government accounting to accrual basis government accounting in government accounting systems [18].

Starting point of modern government accounting is the cash basis-oriented accounting system. Accrual basis accounting system which is the fundamental of modern government accounting system records all kinds of financial transactions regarding all the assets and liabilities, including tangible assets, regardless of collection and payment. For long years, government accounting systems have been recorded in a cash basis manner which includes allocations given by the budgets, expenditures from these allocations, total revenue for financing the expenditures, and some other information that may be needed and which principally represents for the record of collection of revenues and payment of expenditures. However, this budget-oriented recording system became insufficient to fulfill the needs of government management over time, and so, some new experiences were started to be looked for in the area of government accounting. Thus, there has been some studies recently to develop an accrual recording system which is recognized by all financial transactions which have already emerged or will emerge in the future including tangible assets of the government [19]. While recording methods in government accounting accept cash basis at one side and accrual basis at another side, there are other bases as well which are close to both sides. In other words, various regulations were developed within the specified boundaries in order to see the best accounting and reporting status of an asset [20].

2.3.1. Cash basis government accounting

Cash basis government accounting records are transactions arising out of cash purchases. In other words, financial transactions and cases are recognized upon purchasing or payment of cash. Cash basis accounting is not interested in when services and benefits which are derived from transactions have emerged. Financial reports lose budget revenues and expenses, cash inputs and outputs, and opening and closing cash assets in such an accounting system [21].

Cash basis government accounting does not record or report tangible assets, accrued revenues and expenses, expenditures on the assets which must be activated, and government payables as well as other liabilities, commitments, guarantees and changes in price, and quantity of the government's assets [7]. Cash basis accounting system is easy to understand and manage as it includes simple transactions. Since its scope is limited to cash flows, it does not serve for transparency and accountability purposes. So it is required for cash basis government accounting to include or be supported by commitments and liabilities arising out of budget applications at least. Moreover, cash basis government accounting can be strengthened through accrual budget accounting and recognition of some assets and liabilities such as security assets and deposit securities advances and financial assets [22]. Cash basis accounting system is easy to understand and manage as it includes simple transactions. Since its scope is limited to cash flows, it does not serve for transparency and accountability purposes [23]. Furthermore, it provides very little information which is beneficial for finance management as it is mainly focused on payments. It is not a single basis for performance evaluation in terms of prudence and efficiency or achievement of the targets, either [24]. It is possible to suggest the lacking parts of cash basis government accounting system [25].

Not making up a balance sheet: In this system, there is no balance sheet made up because there is no data regarding the payables, moveable and immoveable assets, liabilities, and equities of the government to make up a balance sheet. The fact that cash basis system does not record them and does not create data leads to some negative results. So users cannot obtain sufficient data regarding the financial information of government administrators, and they cannot make assessments.

Not revealing economic results: In this system, budget revenues, expenditures, budgetary and off-budget collections, and payment transactions are reported only based on cash flow.

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Activity reports cannot be produced to indicate the results of activities of the institutions. So economic results of that institution cannot be indicated.

Not having economic and financial performance indicators: In this system, economic movements cannot be estimated. So there are some difficulties in evaluating the financial and economic performance of the institution because of lack of information in comparison of revenues and expenses of that period. Consequently, performance indicators cannot be determined.

Not producing information on service costs: Service cost information, pricing policy and control, and performance evaluation are beneficial and necessary instruments for decision-making process and government contract policies. However, since there is no necessary information which can be obtained regarding expenses and service cost in cash basis accounting system, it is not possible to get necessary information regarding decision-making process because revenues and expenses are recognized when the collections are made, not at their accrual time. Moreover, not recording the moveable assets and not calculating the amortizations are other reasons which make determination of service cost impossible.

Not fulfilling the liability of accountability and financial transparency: Liability of accountability, as a requirement of democracy, is the responsibility and necessity of making inquiries and calling somebody to account regarding fulfillment of the duties and use of government sources by people who are elected by the government and people who are appointed by these elected people. Financial transparency is the explicitness in which government accounts and economic targets can be observed by the government. Since government accounting is a method which records the use of all moveable and immoveable assets of the government as well as its sources and produced financial reports accordingly, it is the main element of accountability. However, this accounting system cannot produce necessary data for the fulfillment of liability of accountability and cannot produce the relevant reports. This system cannot sufficiently help financial transparency because it does not produce detailed and accurate financial data on the issues which are required to be within the knowledge of government.

Opinions of supporters and non-supporters of cash basis government accounting system can be summarized as follows [14]:

Cash basis government accounting system is the simplest method which is used for monitoring government accounts. Supporters of this system suggest that it easily determines the impacts of financial transactions on economy. They also suggest that actual payments by the government increase monetary revenues and revive economy, while payments to the government decrease cash position and society's demand for goods and services. Moreover, since the treasury works as a banker, this system enables evaluation of cash position which is required to be known. The most important function of cash basis accounting system is fund control and determination of liabilities. System also carries out the functions of feasibility and determination of economic impact through expenditure limitations in the short term.

On the other hand, non-supporters of cash basis system accept that cash basis system may have strong impacts on economy, but these impacts cannot be measured unless demands or liabilities are paid to the government. They believe that cash basis system is open to abuses, for example, postponing the payment of debts of current fiscal year to the upcoming year and going into unmatured debts such as advance payments and budget securities until the end of the year. Capacity of cash basis accounting system to help the managers to make decisions regarding administration and financing is limited only to the cash points while government's assets and charges are excluded.

Cash basis recording method, as it is explained above, includes information about the payments within the current fiscal year. However, since these payments do not reflect the actual value of real activity and used government sources, they are not accepted as expenses in reality. Moreover, since accounting records are recognized when the payments are made, not when services and goods are received, this method does not give any information regarding demands arising at the end of the year against a government administration.

2.3.2. Cash customized government accounting

In cash customized government accounting, financial transactions are recorded when the actual payment and collection are made regardless of their accrual periods just like in cash basis government accounting system [21].

The most important characteristic which differentiates cash customized accounting from cash basis accounting is that accounts are not closed by the last evening of the fiscal year; they are open for a specific period of time, generally one month, for the records of transactions of the previous fiscal year. Transactions of the previous period, especially invoices of the budget year, are accepted, and their accounting records are held within this additional period. In this method, transactions are recorded in the accounting records of that fiscal year, and they are reported in the relevant period [24].

2.3.3. Accrual customized government accounting

In accrual customized government accounting, transactions are recorded when an economic value is created, changed, exchanged, transferred, or eliminated regardless of time of cash flows. The most important characteristic which differentiates accrual customized government accounting from accrual basis is the scope of accounting transactions. In this basis, transactions regarding such tangible assets as land, estate, building, vehicles, inventories, forests, and monuments are not included in accounting system, and they are not reported. Therefore, it is easier to understand, apply, and manage compared to accrual basis accounting system because such transactions of determination of tangible assets, amortization, and reevaluation are excluded from accounting. Compared to cash basis, it does not produce deficient information, it records economic transactions as soon as they emerge regardless of cash flows, it is not budget oriented, it records and reports accrued receivables and payables, it creates a basis for activities and performance check, and it records and reports commitments and guarantees which may lead to liabilities in the future [7].

General characteristics of accrual customized government accounting and its distinctions from commitment basis, cash basis, and cash customized government accounting methods are as follows [24]:

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- It does not have the weaknesses of cash basis in the production of information.
- It records commitments and liabilities, so it is one step further than commitment basis.
- It does not have the weaknesses of altered cash basis as inherited from cash basis in the production of information. Since liabilities are recorded when they are recognized, there is no need for set-off period in order to enable the principle of periodicity in this basis.
- It is more convenient for conformity with budget allocations and for liability audit.

It is also in conformity with cost accounting elements which are required by activity and performance audit.

2.3.4. Accrual basis government accounting

Accrual basis accounting fundamentally aims at comparing expenses and revenues accrued within a specific period of time and controlling the existing sources and liabilities to be fulfilled by the end of the period.

Accrual accounting was principally developed in order to make external financial reporting by high profit-oriented private enterprises. Government enterprises also experienced some changes as a result of distinctions of accrual basis. However, the idea that it could be applied in noncommercial sectors of the government had recently been very effective. While it was of high priority to increase profit performance in commercial enterprises, accrual accounting applications would be an instrument of decision-making for the managers in nonprofit governmental organizations and increase the management performance [26]. Liability of accountability, improvement of management, and providing savings would be enabled by increasing the management performance. Especially after 1990, it is seen that governments made progress in the issue of accrual accounting and started financial reporting, management systems, government financial reporting, and budgeting processes in accrual basis [27].

During accrual, transactions are recorded when they are recognized regardless of time of cash flows. Revenue account indicates revenue transactions which accrued throughout the fiscal year regardless of their being collected in cash and which are required to be recorded as revenues in accordance with the principles of accounting which are universally accepted, while expense account indicates sum of expenses which accrued throughout the fiscal year regardless of their being collected in cash. Given that, accrued revenues and expenses are included in the accounts and reports of their fiscal year. Such an approach records and reports these economic transactions in their fiscal year. So periodic financial reports exactly reflect the financial transactions regarding the relevant activity periods [28].

When there is an entitlement of using the sources, which are expected to provide benefit to the organization in the future, accrual basis government accounting system regards them as an asset and records them. Similarly, liabilities of the organization against third parties which are expected to be fulfilled in the future (firm, conditional, guarantee, etc.) are recorded as payables and liabilities. So if there is a positive difference between assets and payables, they are recorded and reported as the equities of the organization (net value) [29].

Important factors in the emergence of accrual accounting are to increase accountability, determine financial status of government sector better, and develop reporting studies as well as financing current expenditures by the taxpayers and making contributions to the assets to provide intergenerational equality. Being considered within the liability of accountability, accrual accounting provides large benefits to the governments with regard to showing actual costs of the use of sources [30].

When comparing with the other government accounting recording methods, accrual basis government accounting has some distinctions as follows [25]:

- *Making up a balance sheet*: Balance sheets which are prepared in accrual basis system and which include assets, payables, liabilities, and equities put forward the financial status and performance of the relevant government organization clearly, explicitly, and accurately instead of charts which are far beyond giving information prepared in cash basis government accounting. With the help of this characteristic, accrual basis government accounting system helps decision-making mechanisms of government management and external users. This system includes all payables and liabilities of the general government sector or the relevant government organization. In other words, it includes all economic results of the services and activities of the relevant government organization. It also helps us to evaluate the capacity of covering payables and liabilities of the government sector in the future through information on financial status obtained from balance sheet.

- *Preparing an activity sheet*: On the contrary to cash basis government accounting, accrual basis system can put forward and report the results of activities and services of the general government sector or the relevant government organization. Therefore, it gives us the opportunity of determining the costs of services or activities of the government and the relevant government organization. So it becomes possible to make a performance evaluation.

- *Determining performance indicators*: It is of high importance to record accrued revenues and expenses with regard to financial decision-making process and performance evaluation. In accrual basis government accounting, indicators and criteria can be determined for measuring economic and financial performance by using the produced reports.

There are some changes and adaptations experienced in the implementation of accrual basis government accounting system to overcome its difficulties. Approaches and modifications which were developed because of the obligation of this implementation in some countries using accrual basis government accounting system are as follows [31]:

- Approach which supports that assets and liabilities are recorded in accrual basis while revenues are recorded in cash basis because of difficulty in calculating the amount of collection.

- Approach which supports that all the liabilities are recorded in accrual basis except for some payable items (social security payments funded by budget revenues).

- Approach which supports that all the assets are recorded in accrual basis except for some asset items (infrastructure, defense and cultural assets, etc., which are recognized as an expense when they are acquired or constructed)

- Approach which supports that all tangible asset items are recorded when they are acquired manufactured or constructed

Financial reports which are produced in accordance with accrual basis accounting system include revenues, expenses (including amortization expenses), assets (financial assets, physical assets, capital assets), liabilities, and other economic flows. Accrual basis accounting records and reports all the program costs including amortization expenses. So it creates a strong basis which measures whether or not government sources are used efficiently and economically or in other words whether or not government managers are good managers with good performances [22].

2.4. International developments

Developments in government accounting were principally brought in as a result of the need for creating financial statistics and reports for the governments by international financial institutions such as United Nations, OECD, IMF, World Bank, and regional economic and political units such as European Union. Since it is impossible to compare and consolidate financial reports that are produced in various accounting reporting systems, it has become necessary to make adjustments which will enable comparison and consolidation in the field of financial statistics and reporting [7].

International organizations and institutions, economically developed countries, and especially European Union carry out important studies in the field of government accounting in international level. Thus, System of National Accounts (SNA93), Government Finance Statistics Manual (GFSM2001), European System of Accounts (ESA95), and International Public Sector Accounting Standards Board (IPSAS) are the fundamental outputs of these studies and projects carried out in this area.

2.4.1. System of National Accounts (SNA93)

SNA93 was founded in order to establish standards and rules regarding measurement of national economy such as classification of national economies in corporates, sector and subsector level, flows, rules of stocks and accounting, production account, income distribution, capital account, financial accounts, balance sheet, economic activities with the foreign world, changes in prices and values, population and labor force inputs, and functional classification which are prepared by the European Union, International Monetary Fund (IMF), Organization for Economic Co-operation and Development (OECD), International Bank for Reconstruction and Development (IBRD), and United Nations (UN) jointly. This system includes principles, which should be taken into consideration while creating systems of accounting and reporting with regard to issues specified above [28].

SNA93 aims at handling scopes and definitions which have recently emerged regarding economy and removing the difference between definitions and scopes of these concepts which are observed in the reports and governmentations of various institutions and organizations [32]. SNA93 is composed of a set of meaningful, consistent, and integrated set of macroeconomic accounts, balance sheets, and statements based on a set of concepts, definitions, classifications, and accounting rules, which are internationally accepted [33]. In this regard, this system aims at recording an economy in full [34].

There were important developments in macroeconomic concepts across the world especially after World War II. Many economists were satisfied with a few economic variables in the past, while they need more detailed economic data in statistical analyses today. Collection of this data is only possible by collecting more detailed statistical data. So current System of National Accounts is a complicated system which is composed of many economic variables which are associated with each other beyond calculating gross domestic product today. There is too much detailed information in the accounts in System of National Accounts (SNA93) depending on the rules of economy and perception of their operation manner. Moreover, these accounts provide more comprehensive and detailed records about economic relationships between complicated economic activities and various economic elements within an economy [32].

2.4.2. Government Finance Statistics Manual (GFSM2001)

Government Finance Statistics Manual (GFSM2001) is a regulation which is prepared by IMF with the participation of the experts from such countries as Australia, Canada, America, and the USA which made progress in the field of accrual basis accounting and reporting as well as International Bank for Reconstruction and Development (IBRD), United Nations, Organization for Economic Co-operation and Development (OECD), and European Commission and which aims at preparing government financial reports such as balance sheets and activity reports as well as classifying and reporting stocks, liabilities, revenues, and expenses in the same manner in every country in accordance with the accrual basis. It includes points which should be taken into consideration while creating accounting and reporting systems especially such as the classification of assets, revenues, and expenses with regard to its scope and rules. GFSM2001 fundamentally aims at creating a comprehensive concept and an accounting framework which enable analysis and evaluation of financial policies, as well as the performance of general administration, in specific terms, and government sector, in broad sense [35].

Basic definitions, concepts, and classifications in GFSM2001—regardless of the conditions in the country where they are applied—are based on economic ideas and principles, which are universally validated. So GFSM2001 can be applied on all the economies regardless of corporate or legal structure of the country where it is applied, complexity of its statistical system, its accounting system, or expansion of its government administration. Unfortunately, some sections of GFSM2001 will not represent for the same meanings and results for the countries, which have important differences in terms of administrative and economic structure.

GFSM2001, as SNA93 is described, was designed and published for general administration and government sector. These sectors are defined based on corporate units, which can acquire assets, go into liabilities, and deal with economic activities on their own. An important difference of GFSM2001 from SNA93 is that it is focused on financial transactions of Government System of Financial Statistics such as taxes, expenditures, and payables, while it also includes production and consumption of goods and services of System of National Accounts [35].

2.4.3. European System of Accounts (ESA95)

European System of Accounts (ESA95) is a study prepared by EUROSTAT, a sub-institution of the European Union, carrying out studies in the field of statistics aiming at creating statistics, which can be compared and consolidated in the member states and candidate states of the Union at the same level. ESA95 is a substitute for European Integrated System of Economic Accounts published in 1970. ESA95 was prepared and published in complete conformity with SNA93 which is a worldwide guidance regarding national accounting systems. However, ESA95 is heavily focused on the provisions of European Union as well as information and data, which are required in integration. Just like SNA93, ESA95 also enables uniformity in concepts and classifications of such various economic and social statistics as employment statistics, production statistics, and foreign trade statistics. So ESA95 is a core reference for the European Union and member states regarding economic and social statistics. Framework of ESA95 is composed of two basic sets of table [36]:

- Sector accounts
- Framework of input-output and industrial accounts

Accounts are classified under three categories:

- Current accounts include acquisition, distribution, redistribution, and the use of revenues for final consumption. These accounts also enable saving calculation, which is a necessary transaction for saving (capital) accounts.
- Saving (capital) accounts analyze changes in the assets and liabilities of different units and enable recording of changes among net values (differences between assets and liabilities).
- Balance sheets indicate assets and liabilities of different units as well as net values as from the beginning and end of the fiscal year.

2.4.4. International Public Sector Accounting Standards Board (IFAC-PS Standards)

The International Federation of Accountants is the most executive and comprehensive organization of the accounting profession in the world. It carries out global studies and provides services in the field of accounting through various subdepartments, councils, committees, and independent advisory boards. As it is specified in the decree of the organization as well, it fundamentally aims at providing service for government interests, strengthening the profession of accounting across the world, and making contributions to the development of international powerful economies [37].

A subdepartment of IFAC, International Public Sector Accounting Standards Board, carries out studies in order to create worldwide standards for government accounting and reporting. These studies are recognized by international financial institutions, regional economic and political unions, and developed countries. There are 21 accounting standards that are published by IFAC so far, and the new ones are under work for the time being [19].

International Public Sector Accounting Standards (IPSAS) no. 1 standard which is prepared by PS of IFAC fundamentally aims at explaining the principles of financial statements prepared by government institutions and organizations as well as types of these financial statements. Aims of government financial statements are classified in two categories in the relevant standard [37]:

- Providing information regarding sources, assets, and changes in them as well as results of government works.
- Providing necessary data in order to analyze cash flows which can emerge in the future.

These activities are not so different from each other. Especially GFSM2001, SNA93, and ESA95 have similar applications with regard to the scope of government statistics and division of accounts. The first point to be considered is the issue of scope of government accounting. National economy is classified in sector level in the international studies, which are carried out in order to determine the scope, so government accounting system is based on social security institutions as well as local and central administrations [22].

3. Government accounting applications in Turkey and in the world

Many countries shifted from cash basis accounting system to accrual basis accounting system as a government accounting method in order to give a response to the pressures regarding efficiency and effectiveness of government sector. However, some other countries rejected this change because they supported that harmful and beneficial aspects of this system varied depending on the special cases of the countries [39]. In this regard, we firstly examined countries which had important developments in shifting to accrual basis accounting system as it threw light upon the developments in the world and which made the first applications of this system. After explaining government accounting applications in the world, we detailed government accounting applications in Turkey.

3.1. Government accounting applications in the world

It is remarkable that countries shifted from cash basis to accrual basis in the applications of government accounting in the world. Even though some countries did not approve this shift, they still advocate its benefits. In this section, we will brief the exemplary applications in some countries and explain the implementation of government accounting systems by the countries.

3.1.1. New Zealand

Developments regarding government accounting which started in the 1980s were not still completed at the beginning of the 1990s. Countries which started to work on this issue were mainly in designing or conceptual phases in 1993 [20]. However, government departments in New Zealand shifted to accrual basis in the issues of budgeting and accounting in 1991, and New Zealand became the first country to produce government accounts in accrual basis in 1992. A government reporting was carried out in 1993 to include approximately 3000 institutions ranging from the largest government enterprise to the smallest primary school (including all assets of the government). New adjustments were brought in the operation of budget system through Liability Insurance Act of 1994. Through these adjustments, combined plans were made which included the ministries in strategical areas (education, health, social aid, social security, environmental protection, and economic development) after 1995 [40].

When the government shifted to accrual basis accounting, it had the competence of preparing balance sheets which can be consolidated and had the opportunity of calculating the actual value of its assets for the first time. Prestige of financial policy in New Zealand increased provided that accounting and budgeting would be made in accordance with all the widely accepted principles of accounting. A private institution acting independently from the government was authorized to control the prosecution and application of these accounting standards so that the government lost its opportunity to make explanations on behalf of itself. New Zealand broke taboos by granting the financial reporting authority of the government to an independent institution through this application [38].

After shifting to the new financial management system, it was possible to see integrated financial reports of the government in New Zealand. New series of widely accepted standards of accounting which are based on the government's financial statements were produced within the scope of a basic project which included the following seven factors [41]:

- Creating accounting policies.
- Collecting information from departments, government institutions, and state economic enterprises.
- Combining (consolidating) the information.
- Validating the information.
- Interpretation and analysis.
- Governmentation and presentation of financial information.
- Communication and marketing.

Studies for improving government finance management were carried out in three directions as creating government accounts, preparing accrual reports, and reporting which includes other independent institutions and enterprises of the government. Accounts and contents were determined through these adjustments. These accounts are "enterprise account" which indicates revenues and expenses of the government, "financial status account" which indicates assets and liabilities of the government, "cash flow account" which indicates cash flows arising out of the activities of enterprises and other institutions, as well as "borrowing and commitment account" and "receivable account". In fact, it was required to be in conformity with generally accepted accounting practice (GAAP) in New Zealand for the accounts which were applied in the central and local administration. Basic element of GAAP is accrual basis in accounting [20].

Adoption of widely accepted accounting standards facilitated the establishment of accounting policies in New Zealand. Approaches which are used by private sector in many areas could easily be applied. Since accounting policies of the government suggested a methodology for preparing financial statements and affected all the government institutions, development of accounting policies was highly emphasized. These accounting policies were also analyzed by the accounting specialists in detail [41].

3.1.2. Australia

Developments in the field of government accounting were maintained within the scope of government management reforms in Australia, just like in New Zealand [20]. Governments made progress in accrual accounting especially after 1995, and they brought a vision to accrual accounting in the issues of financial reporting, management systems, government reporting, and budgeting. However, government managers were warned against the issue of accrual basis accounting starting from the mid-1980s indeed. In the 1980s, Australian Accounting Research Foundation, Australian Accounting Standards Board, and Public Sector Accounting Standards Board developed the idea of general-purpose financial accounts both for private and government sectors [27]. Large-scaled financial and administrative reforms in Australia include two basic themes [42]:

- Focusing on management control system by developing information obtained from accounting system and defining and determining roles and responsibilities.
- Providing economic balance by bringing the concept of competition in the government sector.

In general, financial reforms include financial reporting, accrual basis accounting, complete cost, reconciliation between supplier and buyer, and management of the assets, while administrative reforms include structural reforms, operational reforms, revision of information systems, and other reforms regarding responsibilities. However, administrative reforms are not limited to the foregoings [32]. These reforms were put into practice through two law proposals: “Improvement Plan for Financial Management” and “Program management and Budgeting”. In addition to these laws, “Financial Management and Responsibility Law” was enacted in 1997. Government institutions started to apply accrual basis budget and accounting as a result of these reforms. Accrual basis accounting system was applied, and accrual basis financial statements were created in Australia for 1999–2000 budget year for the first time [42]. A “working group” was also created in order to develop accrual accounting and bring it in the government sector. Enterprise accounts, asset and liability accounts, cash flow accounts, and bond accounts were included in the account plan which covers the whole central administration [20].

3.1.3. Canada

The Government of Canada has applied cash basis in budgeting and recognition of financial transactions until the 1980s. It also used “creative accounting” (overvaluation) methods in reporting and measuring some financial information just like some governments. So that cash basis accounting was used as an instrument of showing false financial reality. However, evaluating financial assets as differently from the reality did not satisfy the need for information which would help correct estimations for the future. So the Government of Canada was highly indebted through its financial statements and budgets obtained through cash basis accounting, could not see the real financial status, and could not take the necessary precautions. The Government of Canada gave up using cash basis accounting application and decided to shift to accrual basis accounting application in order to remove this negativeness. The Government of Canada made important changes in financial reporting applications and shifted from cash basis to accrual basis and financial statements consolidated from separate accounting reports from the beginning to the end of the 1980s. These changes were partly encouraged by Public Sector Accounting and Auditing Board (PSAAB) of Canadian Institution of Chartered Accountants as well [43].

3.1.4. England

There are reform studies regarding the functions, operations, and structure of central administrations in England. The most important reform in this scope is that some authorities and duties of central administration units which provide government services have been transferred to autonomous institutions and agencies [44]. "Resource Accounting and Budgeting (RAB)" is applied in budget and accounting system in England. RAB is a term used for the application of accrual basis in government budgeting and accounting system. It includes the use of "Resource Accounting" knowledge for the control and planning of "Resource Budgeting" government expenditures. Although benefits of accrual basis accounting for the countries could not be understood by many countries in the 1990s, it was understood in England that accrual basis was efficient in both budget and accounting. Accrual basis accounting system was used primarily for government health services at the beginning of the 1990s [45]. England pays much attention to record budgeting and accounting in accrual basis. RAB transforms political priorities of the government into department strategies and budgets, so that the parliament can be reported about productivity and efficiency of the services. It fundamentally aims at enriching the services which are provided by the government. RAB was first founded in 1982 in England through "financial management principles" based on "Financial Management Legislation (FML)". Then, "Green Paper" and "White Paper" published in England included important developments about RAB. There was also an important progress regarding the announcement of RAB after July 11, 2000 [46]:

- "Spending Review" was prepared in order to plan government expenditures on July 18, 2000.
- On July 19–20, 2000, two parliamentary election committees (Government Accounting Committee and Cooperation Committee) authorized the Parliament to make the Treasury apply accrual basis accounting for 2001–2002 fiscal year.
- On July 28, 2000, "Government Resources and Accounts Act (GRAA) 2000" abolished the laws which had been applied since 1866 and provided legal assistance to the parliament both for applying RAB and consolidating all the accounts of the government.

There are financial statements in England, which is similar to the ones produced by government institutions and private sector institutions. However, budgeting process is still regarded as one of the fundamental aspects of financial control.

3.1.5. The United States of America

Developments in government accounting in the USA started with the government sector reforms. The Federal Government prepared a large program for the development of management as from 1981. It was specifically emphasized to facilitate government management and decrease the costs, increase the efficiency of service programs in government sector, and develop financial system to the extent that it can be compared to private sector. In 1990, Federal Accounting Standards Board was founded in order to strengthen the relationship between reporting and accounting upon the agreement of budget office, treasury, and general accounting office. This board has a mission to make advices in accounting standards [20]. This board would be making contributions to development and the use of accrual basis accounting in the next years. As a result of the studies, Administrative Financial Accounting applications made it possible to analyze and report the way of using and controlling the sources as well as collection and measurement of the information which is produced [30]. In 1993, US Senate enacted “Government Performance and Results Act” (GPRA). This act aims at establishing a system of strategic planning and performance measurement within the Federal Government and emphasizes preventing waste and enabling efficiency in the use of government sources in order to fulfill the common needs and demands of the citizens sufficiently. Within this scope, it includes strategic plan, performance plans, and performance reports which are the documents that will be used for getting objective information regarding determination and achievement of performance measurement, aims, and targets; meanwhile procedures and principles regarding the elements which are needed to be available in these documents as well as qualifications and preparation of the documents are also indicated [47].

3.1.6. European Union member states

EU member states, except for Germany and Denmark, prepare their financial reports in accrual basis. Moreover, many member states do not prepare their consolidated financial statements for the whole of government. There are different applications in studies of the countries to shift to accrual basis. Firstly, Holland and Sweden prepared their financial statements in accrual basis and then reflected these statements in their budgets. On the other hand, France and Spain apply accrual basis only in their financial statements while adjusting their budgets in cash basis. Prepared by government management committee, 2002 OECD Study put forward that only three member states prepared their government financial statements based on accrual accounting. Statements prepared in corporation level suggest that there are three member states more in this group. So only 6 member states among 15 member states use accrual basis though in different levels [48]. Spain has been using cash basis accounting system and unilateral record method with regard to government accounting since 1977. It enacted “General Budget Act” for government sector and laid the foundations of new accounting information system. Then, it started “Government Chart of Accounts Plan” (PGCP) for the assets of the government. First studies regarding the government chart of accounts were published in 1983 and remained in force until January 1, 1995 when the new PGCP was put into effect. Then, “System of Information for Accounting and Budget” (SICOP) was published in 1986 in order to put these reforms enacted in the 1980s into force efficiently. This system includes the following: chart of accounts for the general government, detailed accounting lists, and financial statement models regarding the rules of determination and valuation of prices. After all this progress, Spain published Government Accounting Principles of "General Internal Audit and Accounting Offices" (IGAE) in 1991 and accepted the new government chart of accounts in 1994. So Spain shifted to accrual basis accounting with regard to government accounting and adjusted the principles of accounting for the government institutions in a way that they would not be different from the principles of accounting for private sector [49]. The most outstanding characteristic of Sweden government model is that decisions made by the government are jointly made by all the ministers. While daily activities are carried out by a large number of independent units and authorities in different scales, structures, and types, the cabinet determines and makes the policies. Upon the approval of government budget by the parliament, all the allocations are submitted to the use of the government, while the government transfers its responsibilities and funds to its bodies. All accounting applications are carried out in the level of independent units (in this sense, ministries are regarded as independent units). In 1979, "Regulation on Government Accounting" was published by putting forward the accounting principles of independent units. However, some exceptions from accrual basis accounting which are specified in the regulation were applied for a majority of the independent units, while old methods and standards were allowed to be used. Regulation was changed in 1991, and all the exceptions were abolished in 1994 when one-third of independent units changed their accounting methods every year. The parliament also decided to apply these accounting regulation adjustments and accounting principles for the whole government sector. These principles were also standardized in local and regional institutions, but there was no obligation imposed. So that it became possible for Sweden to execute annual accounts in the basis of operational balance sheet, certificate of revenues-expenses, and universal accounting principles which include application balance sheet for sources and funds [50].

Shifting to accrual basis accounting system was regarded as a fundamental step for the managers to derive benefit from total flexibility in input selections. So it was required to see the costs of each input in order to have a more efficient management. Accrual basis accounting system increases the quality of cost information. Also budget and all allocation accounts are also cash basis. Moreover, Sweden brought the obligation of publishing annual reports for the government institutions in 1993. These annual reports include not only financial reports but also performance reports [51]. Studies on accrual basis in Holland started in 1997 when the Ministry of Finance submitted a study titled "From Expenditures to Costs" to the parliament. The government aims at getting the best cost and benefit by using accrual accounting and budgeting in all government services. Having been used in private sector until 1997, accrual accounting also became important in budget classification with the help of these studies after the discussions of full accrual or half accrual [52].

3.2. Applications in Turkey

This section firstly explains the historical development of government accounting applications regarding the application process of government accounting in Turkey. Then, it will address to the reform of government accounting applications in Turkey.

3.2.1. Historical development process in Turkey

Government accounting applications in Turkey date back to pubic accounting system in Ottoman Period. In the fifteenth century, Ottoman Empire firstly made financial legal regulations and then aimed at developing accounting regulations within this legal framework. So a strong government accounting order and organization emerged in the mid-fifteenth century when financial management was structured within the government organization. Government accounting was regarded as a place to hide the secrets for Ottoman Empire. It also emphasizes the importance of government accounting. In the mid-seventeenth century, when there were no budget applications in the west; the idea of government budgets was brought in Ottoman Empire. Budget expenditures were higher than budget revenues at that period. This deficit became chronic as the wars were longer and more expensive. When Europe became richer and stronger in the seventeenth and eighteenth centuries, Ottoman Empire fell behind in economic and military terms. Being a part of the reforms, Imperial Edict of Reorganization in Ottoman Empire was announced in 1839. This edict brought reforms in the field of law, and then the most important reforms were made in the field of finance. Works of writing the legislation of expenses which started toward the end of Period of Reorganization continued until Constitutionalist Period and ended in this period. Subsistence, salary, and retirement laws were put into force in this period by completing the legislation of expenses and starting to keep the records of government officers working in provinces and at the headquarters. These legislations of expenses created the basis of current legislations of expenses in Turkey. After 1876 Constitution was put in legal basis again and Second Constitutionalist Period was announced, the First Parliament and Assembly of Notables accepted the budget of that year in 1909. This budget is of high importance to create the basis of the budgets in the other years in Republic Period. After the announcement of Second Constitutionalist Period in 1910, the first "General Accounting Law" and "By-Law on Restrictions on Accounts to be kept in Subdivisions of Treasury" was put into practice. This main law was practiced until 1910 abolished in 1927 through the Law No. 1050 upon the enactment of General Accounting Law [53].

The first difference in government accounting applications in Turkey is composed of government accounting and budget system in Ottoman Period, while the second difference is composed of government accounting which is applied by the regulations in the field of government accounting throughout Regovernmentan Period. There are important differences in terms of state organization and legality of regulations between Ottoman and Regovernmentan Periods. From this point of view, it is more appropriate to analyze the development process of current government accounting applications in Turkey within the scope of Regovernmentan Period.

After the announcement of Regovernment, there has been important progress in development of government accounting and commercial accounting in our country. While there were progresses in commercial accounting depending on the share of the statist economic policies and so the government in the production of goods and services, there were also important studies in the field of government accounting. As a result of these studies and efforts, General Accounting Law No. 1050 which is regarded as excellent was enacted on May 26, 1927, in early Regovernmentan Period. This law includes authorities and duties of accrual departments,

http://dx.doi.org/10.5772/intechopen.69121

government officers, and accountants of the ministries as well as government budget and other relevant issues [54]. Law No. 1050 had been the legal basis of government accounting system in our country for 76 years until 2003 when Government Finance Management and Control Law No. 5018 was enacted. However, as a natural result of changes in government management concept and government organization structure, Law No. 1050 became insufficient, so the Law No. 5018 was put into force in 2003 as the main law which regulated government financial management. Law No. 1050 fundamentally aimed at basing on the existing administrative structure and establishing financial structure on it. Financial system which is composed of this fundamental structure is as follows [55]:

- Legislation and judicial institutions affiliated with sole government legal entity as well as ministries and organizations are affiliated to a ministry, while their allocations are included in general budget of general administrations (departments) as a separate division.
- Defined in state organization, independent administrations having separate legal entities which are not included in sole government legal entity (service place administration) are included in government budget in the name of value-added administrations. Value-added administrations have their own budgets on account of their separate legal entities. So government budget includes general budget which represents the budget of administrations within the scope of central administration and added budget which represents the budget of the administrations within the scope of service place administration. On the other hand, budget of local administrations named as special budget is excluded from government budget [56].

General Accounting Law which regulates the decisions to determine the officers who are responsible from spending the government expenses, collecting the government revenues, and regulating the final accounts was enacted in 1927. Then, By-Law on Procedures of Treasury Account was put into force in 1928. This bylaw facilitated accounting transactions; abolished Principal Register, which was previously recorded; and put Classification Journal into use. After that, remittances, allocations, and general revenue accounts of current treasury account were also abolished, and money accounts from treasury and branches, collection accounts on behalf of other treasuries, and dispatch account from treasury branches were brought. Moreover, this bylaw abolished the accounts regarding the accrual of budget expenses and revenues, decreased the number of accounts, left the control of the accounts through bilateral recording method, and adopted the control with subsidiary ledgers. In other words, a new system was created by combining the cameral accounting system and the bilateral recording system with the said instruction [56].

"General Regulations of Government Accounting and Regulation on Government Accounting Procedures" have been put into effect since January 1, 1948. The operation of accounts has been explained with General Regulations of Government Accounting, and accounting documentation to be used has been included with Regulation on Government Accounting Procedures. These regulations, which went into effect in 1948, became part of regulations and joints in 1953, 1974, 1975, 1977, 1981, 1986, 1987, and 1989; the number of accounts has been multiplied; accrual and commitment accounts have been added; and the number of off-balance sheet accounts that are available has been increased. Despite the existence of important documents in this regulation such as period end and goods accounting transactions, the abovementioned additives have come to an extreme mixed state with the issuance of regulations, and the new generation of officials is having difficulty with the spelling language. Both regulations were then merged and entered into force as of January 1, 1990 under the title "Government Accounting Regulation" [56].

According to the application of Law No. 1050 in Turkey, an accounting system other than the accounting logic was established structurally aiming to record and report the results of the budget implementation in the units which are included in the general and annexed budgets. Later, when General Regulations of Government Accounting entered into force, entities that are not included in cash-based and noncash-generating debts, affiliates, loans, assets such as extra-budgetary capital, and record of income accruals have also begun to be included in the accounting system in addition to the cash-based accounting system which records budget results. As it is known, all accounts based on cash are closed on December 31. However, after the regulation accounts were not closed on this date and kept open for one month so that past year's accounts can be completed. As it is seen, past practice is neither a totally cash basis nor an accrual accounting system. The application is seen as a system between the adapted cash basis and the accrual basis.

When Government Accounting Regulation is examined, it is seen that the accounting system applied in the general and annexed budgetary administrations accounted for transactions such as deposits and cash capital formations, which are not based on cash basis and income accruals in addition to cash-based budget applications. In addition, accounts are not closed on December 31, the end of the fiscal year, and are kept open for 1 month to complete the budget process for the previous year. When assessed with these characteristics, the government accounting applied for units with general and annexed budgets can be expressed as a system between the adapted cash basis and the accrual basis [24].

3.2.2. Reforming government accounting practices in Turkey

The reform studies in the field of government accounting in Turkey were initiated in 1995 under the name of "Government Financial Management Project" with loan support of the World Bank and maintained in 1999 with the "Regulation on the Accounting of Companies with Circulating Capital". Within the scope of the project, on March 2, 1999, it was planned to be transferred to automation in all the accounts, and the pilot accountancy for Say2000i "Web-Based Accountancy Automation Project" was selected and the first application started. The Say2000i project is a bill management automation system aiming at transparent, fast, and secure service on a virtual network that links all the accounts to each other centrally and across the country. The Say2000i system was started to be implemented in all the accountancies as of December 31, 2001 [57].

Following this, in 2003, "General Regulations of Government Accounting" entered into force, and the accounting plan created according to this regulation also resulted in the change of accounting method. As an accounting method, accrual accounting method has been adopted instead of the government accounting method, which is somewhere between the adjusted cash basis and the accrual basis [11].

Pilot applications were made following the General Regulations on Government Accounting, and all information could be obtained from central computers by providing transparency in government accounts. The pilot works of accrual-based government accounting were initiated in 47 accounting departments carrying out the transactions of 6 pilot institutions selected in 2002 (under Secretariat of Treasury, General Directorate of Highways, Ege University, Hacettepe University, Ministry of Energy and Natural Resources, and Coast Guard command). The transactions carried out in these accounts were recorded according to the cash-based accounting system from one side and according to the accrual accounting system. These records were made in a systematic and accurate basis with around 6000 detail codes classified according to their qualifications. The developments in the accounts and registration methods in the government accounting continued with the abolition of the “General Accounting Law” Law No. 1050 in December 2003, and the “Government Financial Management and Control Law” No. 5018 was put into effect [58].

The criticisms of this system applied in Turkey before 2003 are as follows [24]:

- Since the government accounting system focuses only on the budget, only the budgetary operations are accounted, and government activities that are out of the budget are not monitored.

- The current accounting system is based on cash basis. In the accounting system based on the cash basis, information about the assets and responsibilities of the state cannot be recorded in full and on time. This situation causes much information that is important for financial reporting not to be recorded and lost.

- Government accounting system is limited by scope. Government Accounting Regulation includes annexed budget administrations, without prejudice to the provisions of general budget departments and special legislation. However, there are also institutions in the government sector that hold and use financial resources in their hands such as municipalities, private administrations, funds, and social security institutions.

- There is no accounting unit in the government. Since the existing accounting system includes general budget administrations and annexed budget institutions, institutions outside of them have created their own special accounting systems. Because of this multi-structure, it is not possible to consolidate accounts across all the government sectors.

- Accounts do not have a systematic code, and there are no time separator accounts in the current accounting system. Accounts are classified according to their qualifications. The qualifications of the accounts and the meanings they bear are only understood by the experts in this field. For this reason, financial reports and information that all users can understand and interpret from the existing accounting system cannot be produced, and government accounting remains a specialty.

- Continuity is one of the basic accounting principles. In the current accounting system, activity and budget practices remain in their respective years, while assets such as government assets, liabilities, and receivables are not transferred to the new fiscal year. The results of government action and budget implementation cannot be carried to forwarding years.

This removes the continuity of current government accounting and the comparability of these accounting-generated reports.

- The government accounting system is not as detailed as its competence. The current accounting system is not suitable for generating detailed information both because of the coding system and because it is not fully automated. Since the accounts are not divided into subaccounts, different and detailed information within an account cannot be decomposed and displayed and reported by the accounting system.
- The government accounting system is not suitable for reporting and generating results in this situation. Due to the problems mentioned above, the current system recognizes the transactions of general and annexed budgets and is only able to produce information in the form of rules that can be prepared by non-accounting transactions related to budget implementation results; it is unable to issue financial reports covering the government sector.
- The treasury general account and final account law, which the state is liable for accountability of the budget implementation results, does not have a similar financial reporting feature, and since they are communicated together with the new fiscal year budget in plan budget committee and the general assembly, they are voted and accepted in about 15 min and thus completely loses its effectiveness.
- Many accounts used in the account plan have lost the sense of accounting; different transactions by nature have been recorded on the same account. Reasons for this situation, especially occurred in payable accounts, are that some of government debts are monitored out of budget and a cash basis accounting cannot respond to the accounting needs of emerging borrowing instruments.
- In this accounting system, the government's assets are not recognized and cannot be reported.
- Most semi-fiscal transactions are carried out outside the accounting system, the ones that the system registers are lost in bag accounts which are emerged as the result of not using the accounts in accordance with their qualifications; as a result semi-fiscal transactions cannot be reported.
- Since this accounting system, in which the financial transactions of the government are recorded and therefore the financial reports are generated, does not register enlisted commitments, cannot separate noncash flows from cash-generating flows, cannot show pending expenses, it is not eligible for making allocations and cash projections.
- Accounting of budget implementation and reporting it at both local and central levels is usually carried out manually. This affects the accuracy and speed of information in a negative way.
- The manager should be able to access the information as soon as possible in order to make the right decisions. Information provided with day delay is not sufficient for good and effective management.

"General Regulations of Government Accounting" which is one of the products of "Government Financial Management Project" and regulates accounting and reporting standards and framework account plan for units included in the scope of general management has been published in the Official Gazette on November 19, 2003 with the decision of the Council of Ministers dated October 16, 2003 and No. 2003/6334. However, it has been stated that this regulation will be postponed until the enforcement date of regulations to be made in accordance with the Law No. 5018 dated December 10, 2003. "Accounting Regulation of Units Included in General Budget and Added Budget Administrations" which was included in the units within the central government in 2004 and is on accrual basis has entered into force on February 20, 2004. This regulation terminated the "Government Accounting Regulation" which entered into force in 1990 [59].

Government Financial Management and Control Law No. 5018 was issued in 2004 in order to harmonize Turkish government financial management system with contemporary financial management principles and practices such as efficient, economical, and the effective use of government resources; transparency; accountability; accrual-based government accounting; analytical budget system; and internal control. This law, which is fulfilled with the General Accounting Law No. 1050, was adopted in the Turkish Grand National Assembly on December 10, 2003 and was started to be implemented on January 1, 2006 with all its provisions. Following the governmentation of some provisions of Law No. 5018 in 2003, "General Management Accounting Regulation" which was entered into force by being published on the Official Gazette dated June 8, 2005 with the decision of the Council of Ministers dated May 3, 2005 and No. 2005/8844 abolished General Regulations on Government Accounting dated 2003 from the date of enforcement. The purpose of this regulation has been expanded according to "General Regulation on Government Accounting". Accountability, which is an indispensable element of financial transparency, has been added to the text of the regulation. Furthermore, "General Budget Accounting Regulation" was issued in 2005 and put into force as of 2006. With the governmentation of the said regulations, General Regulations on Government Accounting issued in 2003 and "Accounting Regulation of Units Included in General Budget and Added Budget Administrations" issued in 2004 have been abolished. Finally, General Budget Accounting Regulation has been abolished with "Central Administration Accounting Regulation" which is prepared for administrations within the scope of central government in line with the amendments made in the Law No. 5018 with Law No. 5436 and has been effective as of January 1, 2007. In the first article of the Law No. 5018, which is formed within the scope of the government accounting reform implementations in Turkey, the aim of the law is expressed as follows: the mission that the law is undertaken is emphasized by telling "The purpose of this Law is to regulate the structure and functioning of government financial management, preparation and implementation of government budgets, the accounting, reporting and financial control of all financial transactions to ensure accountability and financial transparency to obtain and use goverment resources effectively, economically and efficiently in line with the policies and targets contained in the development plans and programs" [60].

The scope of the law is shown in the second article of the Government Financial Management and Control Law No. 5018: "This Law includes the financial management and control of government administrations that are within the scope of general management which constitutes of government administrations within the scope of central government, social security institutions, and local administrations". The use and control of resources provided by the European Union funds to government administrations from within and outside the country is also subject to the provisions of this Law, provided that the provisions of international agreements are reserved. The domain of financial management and control is set forth by telling that "regulatory and supervisory agencies are subject to articles 3, 7, 8, 12, 15, 17, 18, 19, 25, 42, 43, 44, 47, 48, 49, 50, 51, 52, 53, 54, 68, 76, and 78 of this Law" [60]. The accounting system prescribed by Government Financial Management Control Law No. 5018 includes the following matters [61]:

- Taking the overall management sector and all of economic transactions into full coverage.
- Enabling officers and officials to account and be controlled.
- To be detailed enough to be able to produce data suited to the needs of administrators and staff.
- Allowing the preparation of final accounts and financial reports.
- Accrual accounting of all financial transactions and at the same time recording the budgetary transactions in cash basis.
- Determination of accounting and reporting standards by a board—preparation of financial reports and financial statistics in line with international standards.
- Governmentation of financial reports and financial statistics by the Ministry of Finance for specified periods.

Government financial management system in Turkey is fundamentally changing with Law 5018; especially the boundaries of government financial management have been specified; common terminology has been prepared; financial reporting, financial statistics, and government accounting have been rearranged; new arrangements have been introduced in parallel with international developments in the scope, implementation, and realization of the central governed budget. By this law, provisions relating to government accounting and government financial statistics have been arranged between 49 and 54 articles of the fourth part of the law entitled "Government Accounts and Financial Statistics" [57].

In Article 49 of the Law, the government accounting system is defined as to ensure that making decisions, controlling, and giving accountability steps are effective and to be established and implemented in such a way that it will be based on a quick calculation of the final account and financial reports. In the second paragraph of Article 49, the features of the government accounting transactions are introduced, and the reasons for the recording of accounts related to accounting transactions are explained. In the said article, it is said that "Records are kept to provide information to the government by the authorities in the control and management in government accounting accounts by taking into account the commitments and trusts in a predetermined system for the assets of government institutions with financial transactions that have any financial consequences and which cause the equity to decrease or increase" [61].

The time and conditions under which accounting transactions are to be recorded are set out in Article 50 of Law No. 5018. In accordance with this article, accounting transaction is "When any economic asset emerges, is converted to a different style, sold or completely left out, it is taken into account. It is essential that all financial transactions are included in accounting and all accounting entries are made based on absolute documents" [61]. Regarding budget expenditures and revenues, it is stated in Article 51 of Law No. 5018 "Government expenditure and income must be shown in the accounts of the accrued year, budget expenditures and revenues must be collected in the accounting records of the year in which the collection is made". In this article government revenue costs and related accounting records are tracked in the accounts of the fiscal year accrued according to the accrual-based registration system. However, recording of budget transactions continues to be recorded on a cash basis as it was in the past [61].

According to the regulations regarding financial statistics made by Article 54 of the Law No. 5018, the provision "Financial statistics for a year are examined by the Court of Accounts for regulation, reality, governmentation, reliability, suitability for predetermined measures and then the conclusion of the review is sent to the Ministry of Finance, to the Turkish Grand National Assembly. The Ministry of Finance takes necessary measures regarding the evaluation of the report" is available [61].

Consequently, while the government accounting system applied in Turkey until 2004 was based on cash basis, Law No. 5018 was published in 2003 within the framework of the studies initiated in 2001, and with the regulation introduced in 2004, the accrual-based government accounting system was introduced.

Within the scope of secondary legislation regulations of the Government Financial Management and Control Law No. 5018, "General Management Accounting Regulation" and "General Budget Accounting Regulation" were issued in 2005 and put into force as of 2006. With the governmentation of the said regulations, General Regulations of Government Accounting issued in 2003 and Accounting Regulation of Units Included in General Budget and Added Budget Administrations issued in 2004 were abolished. Finally, together with "Central Management Accounting Regulation" issued in 2006 and put into force as of 2007, General Budget Accounting Regulation has been abolished.

4. Conclusion

Government accounting assumes the most important role in taking forward rational and sound decisions as a means of providing budgetary control. It is therefore a fundamental task of government accounting to keep records of financial policy transactions and to report them in a manner that is understandable to everyone, by providing the control of the state and other government institutions' compliance with the budgeted revenue and expenditure outcomes of a fiscal year.

Studies that started at the beginning of the 1980s in the world with the purpose of providing efficiency in government financial management, performing accountability to society, making financial reports, and making information transparent resulted in the change of the structure and functioning of government accounting. In general, government financial management, in private, especially developments and changes in government accounting continue. In government financial management, international organizations contribute to government accounting, national accounting, and budgeting. It has been important in the development of accounting that IMF, OECD, the World Bank, and the European Commission have contributed in national accounting subject, but in fact the United Nations has pioneered this issue, IMF has pioneered in budgeting, and International Accountants Federation has leaded on the accounting discipline. Especially the work of the International Accountants Federation and the government sector committee within that continues to meet the new demands expected from accounting. International developments in government financial management and accounting caused countries to review their financial management and accounting systems. Developments that were started in this direction in New Zealand and Australia continued in the USA, Canada, Sweden, the Netherlands, England, Germany, Switzerland, Korea, and Turkey although the starting years were different. New Zealand, the country where first developments in government financial management were experienced, started working in 1989 and has become to record state accounts with accrual-based accounting in 1992. We believe that New Zealand thinks of these things as things that should be in their own internal structure rather than thinking internationally. In other words, we think that the importance of the effective use of government resources and the integration of accountability are socially integrated and work is started in this direction. New Zealand practices led to other countries. The studies carried out by other countries were also carried out for the same purpose in order to gain a certain discipline in government financial management and to realize government accountability.

Cash-based government accounting based on the Accounting Government Law number 1050, which has been implemented for many years in the government sector after the Regovernmentan period in Turkey, was kept totally based on the budget. Only the results of the budget implementation could be seen; it could not ensure that the results of the original work of the government were visible. While the transactions related to the budget were being recorded, the transactions out of that could not be recorded. A simple accounting system was used to record only the cash inflows and outflows from financial transactions regardless of when the benefits from financial transactions come into play. Since the changes that have taken place in the commodities owned by the state have not been recorded in the accounting records, the account of these goods could not be kept, and therefore the borrowing capacity of the state is kept hidden; the actual size of the state could not be determined. For this reason, government-owned assets and accrued income and expenses, commencing commitments, payables, and receivables could not be recorded and reported. It was not possible to obtain financial reports and healthy information from this system. In addition, global and scientific developments emerged in the world have increased the social requirements. State that determines revenue and expenditure according to budget realizations had to pay unnecessary interest by borrowing extemporaneously.

Due to all these reasons, the Law on Accounting Government Law No. 1050 was insufficient against the changing conditions. For this reason, government financial management reform initiatives have been initiated starting from 1995. The first step in the reform of government accounting was taken at the beginning of 2002 with pilot applications made to test accrual-based government accounting by creating a working group within the General Directorate of Accounts. The results of testing the account plan prepared as a result of pilot applications have been successful. It has been seen that it is possible to produce financial reports in accordance with international classification, data can be collected on the basis of institutions, and reports can be produced as classified institutional. It has been understood that budget applications can

http://dx.doi.org/10.5772/intechopen.69121

be reported daily through the Say2000i system. Successful results as a result of pilot applications have shown that accrual-based accounting and reporting system could be implemented.

“General Regulations of Government Accounting” has been prepared after these studies for the transition to accrual-based state accounting in 2003. Then, in 2004, the “Accounting Regulation of Units Included in General Budget and Added Budget Administrations” was put into effect. The regulation, which was in force for 2 years, underwent some amendments under the Government Administration and Control Law No. 5018. “General Management Accounting Regulation” which aims to cover the entire government sector pursuant to this law was published in the Official Gazette on June 8, 2005 and entered into force as of January 1, 2006.

A number of problems were encountered during the transition to accrual-based accounting system that enabled more effective fiscal management and drastic changes in the government accounting system, and it is inevitable that problems will be experienced in the following period. However, with the arrangements made, government accounting has come to be able to fulfill the functions expected from accounting. This used system will be more effective over time by eliminating the deficiencies in implementation and by increasing the knowledge of the staff with better adaptation to the system and will fully fulfill the benefits expected from it.

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References

[1] Dean P.N. Government Accounting in Developing Countries, Policy Studies and Developing Nations, A Multi-Volume Treatise Volume: 3. In: Nagel SS, editor., Routledge, United Kingdom, JAS Press Inc; 1996. pp. 265-283

[2] Güngör A. Azmi, Yönetim Aracı Olarak Türk Devlet Muhasebe Sistemi. No: 1981/231. Ankara: Maliye Bakanlığı Tetkik Kurulu Yayını; 1981

[3] Bulutoğlu K, Kurtuluş E. Bütçe ve Kamu Harcamaları. İstanbul: Kent Basımevi; 1981

[4] Akarçay V. Türkiye’de Devlet Muhasebesi ve Uygulaması. İstanbul, Marmara Üniversitesi Yayınları; 1980

[5] Devlet Muhasebesinde Reform Çalışmaları: Nakit Esasından Tahakkuk Esasına, Ankara: Muhasebat Genel Müdürlüğü; 2002

[6] Demirbaş T. Sayıştaylar Tarafından Gerçekleştirilen Performans Denetimleri ve Türk Sayıştayı Uygulaması. Sayıştay Araştırma, İnceleme. 2001; Çeviri Dizisi: 17, Ankara

[7] Karaarslan E. Devlet Muhasebesi Olgusu ve Ülkemizde Devlet Muhasebesi Standartları. Ankara; 2005

[8] Akmut Ö. Türkiye'de Devlet Muhasebesi. No: 170. Ankara: Atatürk Üniversitesi Yayınları; 1973

[9] Çetinkaya Ö. Devlet Muhasebesi Alanındaki Gelişmeler ve Türkiye'de Yapılan Çalışmaların Değerlendirilmesi. İstanbul Üniversitesi İktisat Fakültesi Maliye Araştırma Merkezi Konferansları Sayı: 46. 2004. pp. 83-98

[10] Sipahi B, Yanık S, Topal C. Devlet Muhasebesi. İstanbul: Nobel Basımevi; 2007

[11] Yıldırım, Z, Çetinkaya Ö. Devlet Muhasebesi Teori ve Uygulama. Bursa, Ekin Kitabevi; 2006

[12] Giray A. Milli Muhasebe ve Devlet Muhasebesi. Ankara; 1997

[13] Monsen N. The case for cameral accounting. Financial Accountability & Management. February 2002;**18**(1):39-72

[14] Gökçen G. Devlet Muhasebesi. İstanbul: Türkmen Kitabevi; 2003

[15] Şahin N. Devlet Muhasebesi. Ankara: Ankara İktisadi ve Ticari İlimler Akademisi; 1968

[16] Tügen K. Devlet Bütçesi. İzmir: Anadolu Matbaası; 1999

[17] DPT. Kamu Mali Yönetiminin Yeniden Yapılandırılması ve Mali Saydamlık Özel İhtisas Komisyonu Raporu. Sekizinci Beş Yıllık Kalkınma Planı. Ankara: T.C. Devlet Planlama Teşkilatı Yayınları; 2000

[18] Karaarslan E. Merkezi Yönetim Kapsamındaki Kamu İdareleri İçin Devlet Muhasebesi. Ankara, Muhasebat Kontrolörleri Derneği Yayınları; 2007

[19] Maliye Bakanlığı TC. Muhasebat Genel Müdürlüğü. Devlet Muhasebesinde Reform Çalışmaları: Nakit Esasından Tahakkuk Esasına. Ankara; Muhasebat Kontrolörleri Derneği Yayınları, 2002

[20] OECD. Accounting for What?: The value of accrual accounting to the government sector. Occasional Paper on Government Management. Paris, OECD; 1993

[21] Dişli M, İpek M, Aydın B. Merkezi Yönetim Muhasebesi. Ankara, ISBN. : 9786056168604, Mayıs 2007

[22] Kerimoğlu B. Devlet Muhasebesinde Reform Çalışmaları, Mali Kılavuz Dergisi, No. 17. Ankara: Muhasebat Kontrolörleri Derneği Yayını, 2002

[23] Karaarslan E. Tahakkuk Esaslı Muhasebe ve Devlet Hesaplarında Şeffaflık, Mali Kılavuz Dergisi, No: 15. Ankara: Muhasebat Kontrolörleri Derneği Yayını, Ocak 2002

[24] T.C. Başbakanlık Devlet Planlama Teşkilatı. VIII. Beş Yıllık Kalkınma Planı: Kamu Mali Yönetiminin Yeniden Yapılandırılması ve Mali Saydamlık Özel İhtisas Komisyonu Raporu. Ankara, T.C. Başbakanlık Hazine Müsteşarlığı Yayınları; 2000

[25] Montesinos J.V., Vela Bargues, J.M., Governmental Accounting in Spain. Research in Governmental and Non-profit Accounting, 9, 1996, pp: 219-238.

[26] Maliye Bakanlığı Muhasebat Genel Müdürlüğü Devlet Muhasebesinde Reform Çalışmaları: Nakit Esasından Tahakkuk Esasına. Ankara, T.C.Maliye Bakanlığı Muhasebat Genel Müdürlüğü Yayını; Kasım 2002

[27] Guthrie J. Application of accrual accounting in the Austalian government sector—Rhetoric or reality? Financial Accountability & Management. February 1998;**14**:1-19

[28] Gören İ.. Kamu Mali Yönetiminin Yeniden Yapılandırılması Bağlamında Performans Yönetimi. Türk Kamu Mali Yönetiminin Yeniden Yapılandırılması ve Bu Yapılandırmada Performans Yönetimi ve Denetiminin Yeri. XV. Türkiye Maliye Sempozyumu. Akdeniz Üniversitesi, İ.İ.B.F. Maliye Bölümü. 15-17 Mayıs 2000; pp. 227-266

[29] Ainsworth P., Denıes D., Plumlee RD, Larson CX. Introduction to Accounting: An Integrated Approach. A.B.D.; 1997

[30] Robinson M. Accrual accounting and the efficiency of the core government sector. Financial Accountability Management. February, 1998; **14**(1):21-37

[31] Allen R, Tommasi D. Managing Government Expenditure; A Referance Book for Transition Countries, Paris, OECD-SIGMA; 2001

[32] Unur K, İçöz O. Turizm Uydu Hesapları. Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi İzmir. 2004;**6**(1):304-327.

[33] T.C. Başbakanlık Devlet İstatistik Enstitüsü. Uydu Hesapları Turizm: 1996-1998. Ankara, Devlet İstatistik Enstitüsü Matbaası; 2002

[34] Jackson D. The New National Accounts: An İntroduction To The System of National Accounts 1993 and The European System of Accounts 1995, Cheltenham, Edward Elgar; 2000

[35] Government Finance Statistics Manual. 2001. Companion Material, CLASSIFICATION OF GFSM 1986 DATA TO THE GFSM 2001 FRAMEWORK, International Monetary Fund, www.imf.org, October 2002

[36] European System of Accounts (ESA95). http://forum.europa.eu.int

[37] Handbook of International Government Sector Accounting Standards. www.ifac.org, ISBN 978-1-60815-264-3, December 2015.

[38] Chang J, Chen G, Chow C. Exploring the desirabilitiy and feasibility of reforming China's governmental accounting system. Journal of Government Budgeting, Accounting & Financial Management. Winter, 2008;**20**(4):482-509

[39] Pallot J. A decade in review; New Zeland's experience with resource accounting and budgeting. Financial Accountability & Management. November 2001;**17**(4):383-400

[40] Rıchardson R. Opening and balancing the books: The New Zealand experience. Perspectives on Accrual Accounting: IFAC Occasional Paper 3, New York: Public Sector Committee;1996

[41] Warren K. Implementing accrual accounting in government: The New Zealand experince. IFAC Occasional Paper. October 1994;1:1-19.**1**

[42] Hoque Z. Moll J. Government sector reform ımplications for accounting, accountability and performance of state owned entities an Australian perspective. The International Journal of Government Sector Management. 2001;**14**(4):304-326

[43] Hillier, D. From cash to accrual: Canadian experience. Perspectives on Accrual Accounting: edited by International Federation of Accountants, Public Sector Committee, Occasional Paper 3. Newyork, 1996:15-22

[44] Skelcher C. The Appointed State, Buckingham: Open University Press; 1998

[45] Jones G. Resource accounting and budgeting: Another false trail? Perspectives on Accrual Accounting: IFAC Occasional Paper 3. ISBN 1-887464-22-0, 1996:33-37

[46] Resource Accounting Framework of Accounting Standart Setting in the UK Central Government Sector. IFAC Government Sector Committee , United Kingdom, No: 5; 2002

[47] Yılmaz S. Performans Esaslı Bütçenin Gelişimi ve Uygulanması. Bütçe Dünyası Dergisi. 2007;**3**(27):35-43

[48] OECD. Accurual accounting and budgeting key ıssues and recent developments. Twenty-third Annual Meeting of OECD Senior Budget Officials. Washington, DC. 3-4 June 2002

[49] Montesınos V, Bargues JV. Bases of accounting and reporting foci in Spanish governmental accounting. Perspectives on Accrual Accounting: IFAC Occasional Paper 3. ISBN 1-887464-22-0, 1996: 17-24.

[50] Ström S. Full accrual government accounting in Sweden. Perspectives on Accrual Accounting: IFAC Occasional Paper 3. ISBN 1-887464-22-0, 1996: 25-32.

[51] BlöndaL JR. Budgeting in Sweden. OECD Journal on Budgeting. 2001;**1**(1):27-57

[52] OECD. Accrual Accounting in the Netherlands and the United Kingdom. 1997. www.oecd.org./puma

[53] Öner E. Osmanlı İmparatorluğu ve Cumhuriyet Döneminde Malî İdare. Ankara, Maliye Bakanlığı Araştırma – Planlama – Koordinasyon (APK) Daire Başkanlığı Yayınları, Yayın No: 369.; 2005

[54] Çoşan MH. Devlet Muhasebesi. Ankara, Yeni Uğur Matbaası; 1980

[55] Bayar D. Kamu Mali Yönetim ve Kontrol Kanunu Ne Getir(m)iyor? Maliye Dergisi. Eylül-Aralık 2003;144: 47-61

[56] Karaarslan E. Ülkemizde Devlet Muhasebesinin Serüveni. Sayıştay Dergisi, Ankara. Temmuz- Eylül:2004;54; 37-76

[57] Gökgöz A. Say2000i Web Tabanlı Saymanlık Otomasyon Sistemi Üzerine. Kamu Hesaplarına Uzman Bakış Dergisi. 2001;**1**(1):52-56

[58] T.C.MALİYE BAKANLIĞI Muhasebat Genel Müdürlüğü. Tahakkuk Esaslı Devlet Muhasebesi Pilot Uygulama Sonuçları. Ankara, T.C. Maliye Bakanlığı, Muhasebat Genel Müdürlüğü Yayını; Mayıs 2003

http://dx.doi.org/10.5772/intechopen.69121

[59] Dişli M. Tahakkuk Esaslı Devlet Muhasebesi Açıklamalı-Çözümlü, No: 6. Ankara: Muhasebat Kontrolörleri Derneği Yayın; 2004

[60] Resmi Gazete. 24.12.2003; 25326

[61] Kızılkaya E. Yeni Devlet Muhasebesi Sistemi. Mali Kılavuz Dergisi, Ankara. 2007;35: 91-112

Chapter 15

Public Accounting Reform from Institutional Theory Perspectives: Case of Turkey

Ceray Aldemir and Tuğba Uçma Uysal

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.68778

Abstract

In the literature, it is often found that institutional theory is used as the theoretical framework to explain the development and application of accounting. By means of these studies, it becomes easier to understand accounting as a social and political activity within itself and thus to be able to understand the economic, institutional, political and social environment of the turnover of the practices. In this regard, the main aim of this study is to explain the development of the public accounting system in Turkey with the help of institutional theory. Thus, it is aimed to explain all the dynamics that provide the institutionalization of state account in the national sense, together with the economic, political and social processes of the period in question. It is revealed that the regulatory arrangements directly contribute to the institutionalization of a field, and as a result, how the public organizations directly contribute to the institutionalization process.

Keywords: public accounting, institutional theory, public administration reform

1. Introduction

Historical processes have shown that states, which are powerful central structures in the collection and dissemination of incomes, are more successful in shaping internal and external politics than other states [1–3]. Such a centralization will not prevent the increase in tax revenues, but will prevent the lost income from being lost in middle-man stages. This is the most important influence underlying the search for a transparent and accountable state that continues to increase in importance throughout history. Nowadays, public institutions need to provide a rational accountability in order to be able to sustain an accountable, effective and efficient state structure. For this, there is a need for an accounting system that facilitates accountability, whether it is a strong and controlled state or a state structure that is maintained at a minimum level of control.

According to Hopwood [4], accounting has a vital role both in organizations-states and in social relationships. Accounting knowledge can affect perceptions, change languages and offer new possibilities for new actions. In this case, accounting also plays an active role in the realization of economic action. Abstracts and objectifications in the field of accounting are created within the economy. For this reason, the economic information that forms also shapes organizational activities, interests and preferences. From Hopwood's point of view, it can be said that there is a close relationship between accounting and organizational theory. This brings about the convergence of the two areas that are seen as far apart. Namely, it is possible that the approaches used in the theory of organization can be used to explain the accounting applications. Especially since the 1980s, this situation is often encountered.

Dillard et al. [5] explains this situation by the failure of the accounting discipline to empirically fail to explain the emerging accounting techniques and systems of theory, such as efficient market theory and theory of power of attorney. According to them, the accounting discipline needs to be re-conceptualized. Also, they add that as a result of this, the questions in the accounting researches have changed and the researchers have started to work interdisciplinary and applied the theories in different disciplines in order to be able to search for better answers to the questions such as how accounting is affected and how it affects. One of the theories that have been used to answer these questions has been institutional theory. Thus, accounting practices and change processes can become more expressible.

In the literature, it is often found that institutional theory is used as the theoretical framework to explain the development and application of accounting [1]. Some pieces of the literature indicate that accounting researchers investigate the development of accounting idea, explain how and why it changes, and discuss the social, economic, environmental and individual factors that influence changes. By means of these studies, it becomes easier to understand accounting as a social and political activity within itself and thus to be able to understand the economic, institutional, political and social environment of the turnover of the practices [2].

In this regard, the main aim of this study is to explain the development of the public accounting system in Turkey with the help of institutional theory. In this chapter, the standardization studies of the accounting system, especially the nineteenth century and the Republican period, which are experienced from the day to the day, are handled, and the transfers to the public accounting system, which is directly affected by the regulations and the conditions of the day, are studied. Thus, it is aimed to explain all the dynamics that provide the institutionalization of state account in the national sense, together with the economic, political and social processes of the period in question. It is revealed that the regulatory arrangements directly contribute to the institutionalization of a field, and as a result, how the public organizations directly contribute to the institutionalization process.

http://dx.doi.org/10.5772/intechopen.68778

This study more specifically highlights the institutionalization process and institutional isomorphism and legitimization process. On the basis of this—as explained above—is the process of institutionalization that the accountant has as an occupational field and the contribution of this process to the institutionalization of the organizations. Globally, countries in the institutionalization process can adjust their own regulatory accounting systems and standards according to regulations in the actor countries [6]. As a result of this process, accounting specialization is provided. Especially in a sophisticated combination of theoretical knowledge, universality in the global context of a field of expertise, such as accounting, which incorporates analytical power and decision-making capability, offers the advantage of socio-political growth and potential advantage in terms of potential conceptual diffusion in this area [7].

However, this process can occur differently in different countries. Sometimes, the cultural environment [7] and sometimes the economic and political situation of the period (such as the war period) can be decisive in terms of ensuring and maintaining professional development. For example, such an environment can occur which needs a new cost-accounting system—after First World War [8]—or may occur as a result of dual regulations such as the one between the USA and Canada [6]. Or, as it happened in Turkey, it can be done with national reforms which are direct transfers from decisive countries. In this case, it is the subject of observing all of the figures considered. In short, the scope of this work is the public accounting reform in Turkey. Thus, the study evaluates the institutional theory of the public accounting reform process in Turkey from 1800s to 1950s.

2. The conceptual framework of institutional theory

As Dillard et al. defines institutional theory is, in general, a way of thinking about the relationship between formal organizational structures and the social processes that contribute to the development of these structures [5]. On this basis, the phenomenon of institutionalization is defined as the merging of new norms, values and structures with existing norms, values and constructions [9]. This process provides equilibrium and predictability in social relations, and accordingly these relations continue to occur [10]. The main reason for this is that institutionalization is seen as a social process [11]. In short, the foundation of the theory of institutionalization is the tendency of organizations—states to adapt to changing norms and social influences—processes of institutionalization. If they do not, naturally they will lose their legitimacy. This encourages organizations to homogenize their organizational structures and practices [6]. This is the starting point of many studies in the literature that explains the institutional theory.

As is known, the development of this theory involves more than half a century. Özen [12] examines the historical development process, the years of the 1980s were the beginning of the theory; the end of the 1980s and beginning of the 1990s were the years when the differences between the approaches explaining the institutional theory are being questioned and the effects of the 1990s on the organizations of the state and professional organizations as the years in which empirical studies continue. Within the development process of the theory, there are five different approaches that explain the institutional theory in the literature. These approaches are summarized in **Table 1**.

Year	**Researchers**	**Institutionalization approaches**	**The way of institutionalization**	**Organizational goal**
1957	Selznick	Adaptation tool	By creating values	Balance Legality
1977	Zucker	Formation of social order	By developing joint appropriate and meaningful behaviour together with the environment and transferring them to other individuals	Relevance Legitimacy
1977	Meyer and Rowan	Formation of social order	By creating a shared value system	Legitimacy Increasing resources Continue your life
1983	DiMaggio and Powell	Adaptation tool	Imitating successful organizations	Escaping uncertainty
1987	Friedland and Alford	Affect conscious and normative pressures	Changing corporate environment to protect interests	Follow-up of benefits

Source: Ref. [10].

Table 1. Institutionalization approaches.

Based on the pioneering work that contributes to the formation of institutional theory,[1] it forms the basic thesis of theory, the structures and processes of organizations by adapting them to the institutional environment they are in. In other words, in order for organizations to survive, they need to be productive not only in technical terms but also to legitimize themselves [12]. In order to do this, organizations need to respond to pressures from their institutional environment and adapt their organizational choices to socially accepted constructs or procedures [13]. This finding is the common point in all studies. The main difference in the studies is the form of institutionalization and institutionalization process. The question of these fundamental differences, together with the institutional theory itself, causes disagreements within it. This situation brings to mind the old and new concepts of institutional theory.

The piece of DiMaggio and Powell in these studies is shown as a study explaining the new institutional theory. The most important contribution of this work to the new institutional theory is the clarification of the concepts of isomorphism and organizational domain. DiMaggio and Powell argue that with modern life, organizations—even public institutions—are becoming more and more like each other. This process is expressed as the structural change process that the state and the professions shape as the greatest rationalizers, and as a result, the organizations according to the process are similar to each other [12].

[1]For detailed reading, please see Ucma T. (2012). Türkiye'deki Muhasebe Sisteminin Gelisiminin Kurumsal Teori Çerçevesinde Açiklanmasi, Muhasebe ve Finans Tarihi Arastirmalari Dergisi, MUFAD Yayinlari, Sayi: 2, Ocak, S. 145–178.

DiMaggio and Powell [14] call it isomorphism as long as organizations tend to adapt to the same constructs and practices. Isomorphism is often expressed as a similarity in the organizational and institutional context as a term used in mathematics, chemistry and biology [6]. According to DiMaggio and Powell [14], the concept of isomorphism is the best expression of the homogenization process and is expressed as the process of resembling others in a population with the same environmental conditions. It is understood that organizations should change themselves according to their characteristics.

DiMaggio and Powell describe their work as a process of isomorphism. Two types of isomorphism are mentioned in this process. The second one is competitive isomorphism. According to DiMaggio and Powell [14], institutional isomorphism occurs in three mechanisms. These are as follows:

> *Coercive isomorphism: It emerges from political influences and legitimacy problems. The coercive isomorphism arises from the official or non-official pressures of other organizations and the cultural expectations of the community they are in. These pressures can sometimes be in the form of a force, a means of persuasion or an invitation. Under certain conditions, however, organizations respond to this pressure. In other words, the organization directly affects the behaviour and structure of the organization in many ways around the periphery. For example, legal and technical requirements such as annual reports, budget, financial reporting requirements in a country shape organizations. In this case, the organizations are becoming increasingly homogenous [14].*
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> *Mimetic isomorphism: In such isomorphism uncertainty is a force that pushes organizations to imitate. When goals are ambiguous and the environment creates symbolic uncertainty, organizations can model themselves to other organizations. Thus, the uncertainty is answered. The model received does not know that it is sometimes modeled or even does not want to be imitated. As a result, organizations in this kind of isomorphism make themselves more similar to other organizations and thus become more legitimate or more successful [14].*
>
> *Normative isomorphism: The third source of organizational isomorphic changes is normative isomorphism. It means here that all members of a profession, expressed by specialization, can jointly define the conditions and methods of work and contribute to the legitimacy of the profession and its foundations. Both aspects of the specialization are important in terms of isomorphism. While the educational and cognitive-based legitimacy provided by the universities is mainly provided, the second is the establishment and expansion of professional relations and therefore the dissemination. Universities and vocational training institutions are important for the development of organizational norms [14].*

Regardless of what mechanism occurs, institutional isomorphism refers to the cohesion of an organizational practice with other organizations. Institutional environmental structure is one of the main determinants of isomorphic process formation [5], and organizations are becoming isomorphic, that is, uniform, with the institutions of the public institutions adopting them [12].

It is possible to discuss the process of isomorphism in public organizations in terms of public accounting. Even though the theory of organization and the theory of accounting are reflected as far apart, they have an effective role in the rationalization of accounting organizations. It can be shown that the main reason for this is that the accountant is determinative of the legitimacy and transparency of the public organizations. In particular, it is considered that the concept of isomorphism that best expresses the international standardization in the field of accounting, namely homogenization, isomorphism, imitator, normative or compulsive isomorphic tendencies that arise due to institutional environment structure, causes institutional theory to constitute the theoretical basis of study. This approach, which is included in institutional theory, is expected to facilitate the understanding of the development or formation of the national accounting system, which is specifically described in subsequent parts.

3. Public accounting transformation between 1800 and 1950: reasons, implications and insights

An examination of the transformation in an area based on institutional theory is possible by evaluating the environmental, economic and political factors that emerged during the transformation process. In order to be able to interpret the historical development of the Ottoman reforms on public accounting, it is necessary to examine the aforementioned factors. When the history of public accounting in Turkey is examined, it is known that the history is based on ancient periods of Ottoman. According to information obtained from the accounting historians and the Prime Ministry archives, it seems that the public accountancy in the Ottoman Empire came into existence in the first years of the establishment of the Empire. The Ottoman Empire's first regular taxes based on traditional taxing regulations—*tımar ve zeamet*—were made by Çandarlı Kara Halil Pasha during the Sultan Orhan, the second sultan of the state. According to this method, a land conquered by the Ottoman armies was shared among the state treasury and soldiers; and, in the General Directorate of the Archives, the books, which are still known as the examples of them, are recorded and the taxes are allocated on them. It is possible, however, to find out that the expenses of the empire from the time of its establishment were regularly recorded on the day of the day.

Historical records also include budgetary examples that are not modern. During the reign of Sultan Mehmed IV, Tarhoncu Ahmet Pasha presented the state budget of 1651, which shows the state's income and expenditures and the precautions to be taken due to the budget deficit. Later on, these revenues were recorded in the books called *Ruznamçe* which are still stored in the General Directorate of the Archives, and tax is allocated on them. It is possible, however, to find out that the expenses of the Empire from the time of its establishment were regularly recorded on the day of the day. Historical records also include budgetary examples that are not modern. During the reign of Sultan Mehmed IV, Tarhoncu Ahmet Pasha presented the state budget of 1651, which shows the state's income and expenditures and the precautions to be taken due to the budget deficit [15].

The most striking point in this budget, which belongs to the seventeenth century, is the budget deficit. In order to assess the budget deficit, it is necessary to look at the characteristics of the period before this century. The financial problems that could lead to budget deficits in the Ottoman Empire began in the middle of the sixteenth century and continued to increase in the seventeenth and eighteenth centuries, reaching a summit in the nineteenth century that would lead to the demise of the empire. In order to get there from above, external borrowing was done in the empire. This has caused the Ottomans to become a good market in terms of Europe [16]. The process of overcoming the increasing financial strains in the Ottoman

Empire, especially through external borrowing, has been one of the most important triggers of public accounting reform in the empire. Raccagni [17] expresses the process in this period as follows:

> *"The situation in the Ottoman Empire was favorable to the expansion of French business. The Commercial Agreement of I838 enabled France and Great Britain to sell their manufactured goods all over the Ottoman Empire without being hampered by customs regulations. The Capitulations were used to its ever-increasing detriment. By the late eighteenth century, members of the religious minorities of the Empire came to establish close ties with their foreign coreligionists, and, by adopting the latter's citizenship, were able to enjoy legal immunities and fiscal advantages denied their Muslim countrymen by the ruling authorities (Raccagni, 1980: 340)".*

In terms of being influential on state policies, France plays the most active role in the Ottoman market. However, France's influence over the Ottomans was not only limited with public financial reform but also encapsulated the military and education. Raccagni (1980) expresses this in the following way:

> *"The Ottoman government often welcomed French assistance. Military and educational reforms were carried on French patterns, often under the supervision of French officers and teachers sent by the Government of Louis-Phi- lippe.11 The leaders of the Tanzimat period (I839-1876), who had been exposed to French influence during their formative years in Europe, resorted to French collaboration in order to counterbalance the influence of Russia and Austria, who had gnawed at Turkish territories for more than a hundred years, and of England, who already had a strong incentive to get a foothold in their realm to secure her imperial communications (Raccagni, 1980: 340-341)".*

Although the Ottoman Empire had similar practices with Europe until the eighteenth century, after that date, the greatest cause in the differentiation and influence of Europe is the decentralized tax systems. According to Karaman and Pamuk [3], taxation is the distribution of resources in centralized states in Europe early in the modern era. These states have tried to increase the effectiveness of internal sources with a more efficient centralized tax system and to achieve military success in the international arena. In addition, some of these states have provided a great deal of financial centralization, and since the second half of the eighteenth century, they have made considerable differences both financially and militarily compared to other states. This is because the centralization of income is a financial phenomenon and the differences in this century can be seen clearly in the countries that cannot manage this financial phenomenon.

For example, it is known that in the sixteenth century the Ottomans showed similarities with France in many respects when the European influence in the nineteenth century was assessed on the Ottoman public financial system. Both countries were not very complex and centralized. By the seventeenth century, both the Ottoman and French tax systems had developed at significant levels. War and financial needs have been the driving forces of change in early public funding. In particular, the increase in the wartime financial deficits caused changes in French and Ottoman financial institutions. In this respect, the tax systems applied to centralize both France and the Ottomans in the first half of the seventeenth century appeared in various forms. The system applied as a tax-farming system was effective in the eighteenth century when it was operated in France, but did not find a successful application area in the Ottoman Empire [18].

In the direction of these developments, nineteenth century has been the period of significant changes in terms of financial and monetary policies in the Ottoman Empire. This century was not only the period when the reforms in financial systems took place but also the period in which the results of the different periods of Ottoman financial structure were taken due to internal and external borrowings [19]. The basic statements mentioned were influential in the selection of the period of study focus. This is because the need for reform of the public accounting in the Ottoman Empire came about not in a single century but in the evaluation of the results of more than one hundred centuries. In other words, it is possible to relate the dynamic of the changes that took place in the Ottoman period in the nineteenth century to the problems that have been effective since the fourteenth century [20].

Nineteenth century was a period when the foreign influence increased due to the policies applied in the Ottoman Empire. Reform Edict (Tanzimat Fermanı-Gülhane Hatt-i Humayunu) was declared on 3 November 1839, in order to manage this perception that occurred in the international arena and to restrict Europe's intervention areas on the Ottoman side. The word reform has been chosen in particular and has been used in order to prevent chaos in the country and to regulate it in terms of the state mechanism. Therefore, between 1839 and 1876, it was defined as the *Reform Era* in the Ottoman Empire [16]. In the Ottoman Empire, innovation movements, which had started at the time of Selim III (1789–1808), and increasingly continued during the period of Mahmut II (1808–1839), did not give much importance to the financial management. However, those movements had been manifested in the military and administrative field. Especially after 1830, developments were seen in this area, and a year before Tanzimat, in 1838 the foundations of the current centralized financial management were established [12].

One of the most important innovations in this period was realized on the tax collection system. In the Ottoman Empire, the greatest failure of the state occurred during the tax collection process. Only certain taxes were collected by the Taxman and linked to a tax collection system called *iltizam.* In this process, Taxman brought his tax obligations to increase his income and sent certain parts of the collected tax to the state [21]. Taxes from foreign merchants, however, were gradually declining—initially as a result of agreements made with the United Kingdom and later with other western countries. In order to prevent this, it was stated that the taxpayers would collect the people according to their income and that the soldiers could only take part in this process as observers [16].

Another innovation in the reform period is related to the budget. Looking at the historical development of the budget, it is not possible to mention a modern budget estimating the general income and expenses of the state before the reform period in the Ottoman Empire. Only income was collected from various sources for specific services. In the reform process of 1839, there is no clear statement of the budget. However, there are explanations about the fact that the expenses are determined by law. For the first time in 1845, the decision to prepare a modern budget is announced in accordance with the estimation and collection principles. In the Ministry of Finance, a decision was taken every year to start budgeting in 1846. A framework has been presented taking Western models into consideration.

http://dx.doi.org/10.5772/intechopen.68778

After this date, the Finance of Treasury has published annual books called the *Muvazene* (Balance). The first legal arrangement in the name of the budget was realized in 1855 [16]. *Bütçe Nizamnamesi* (the Budget Ordinance) published with the 1856 Islahat Fermanı brought important provisions about the budget. With this regulation, every year the income and expenditures of the state will be determined and a notebook called *Muvazene* will be presented to the Sultan. Even though this regulation has introduced the principles of budgetary technique, a parliament has been given to the commission, instead of a parliament representing the nation who has authority to prepare and approve the budget.

In 1859, the Islahat-ı Maliye Komisyonu (Finance Reform Commission)—consisting of four Turkish and three foreign members—was established and a year later the name of this commission was changed to the Treasury Assembly. The Commission faced great difficulties; hence the desired information about the financial and economic situation of the country has not been reached. However, based on the figures and information gathered in the relevant departments, the first budget could be prepared in 1863–1864. At the beginning of the 1860s, British Hobart and Foster, who came to Istanbul to study the Ottoman state's financial situation on a new debt request, spoke of the necessity of making a realistic budget in their reports. The first budget was set, but the system and necessary organizational structure was not established. The budget has been prepared to allow the state to obtain foreign debt more and to show the financial status of the state to the foreign states. In other words, the first budgets and then the other budgets that follow these budgets have not gained much importance. It was the documents that were approved by the persons who were brought to the administration by appointment and presented to the absolute will of the Sultan.

In 1872, a new regulation was issued in the name of 'Budget Regulation of the State Treasurer'. An important difference brought by this regulation is that the Budget Commission should examine the budget before it is sent to parliament [22]. In 1874, the second legal regulation on the budget was made accordingly. The second regulation, which has the same framework as the first regulation, includes the submission of the budget proposal prepared by the Ministry of Finance to the approval of the Sultan by the Board of Ministers after being discussed in the budget commission. One of the most important ones in the budget regulation during the reform period is to make the Julian Calendar (financial year) for the budget preparation according to the Islamic order [16].

In this respect, the first law concerning the Ottoman budget was the 1876 Constitution. The state budget was defined on the basis of the provisions of the French constitution. The annual income of taxpayers, the approval of income and expenditures in terms of departments and the annual principles of the budget were included; the Court of Accounts Law and the final account law were adopted [22]: 1876 Constitution (Kanun-i Esasi). Kanun-ı Esasî has given the budget right to the Assembly and the Assembly established by the Parliament and Ayan Parliament. In the Kanun-i Esasî, it is stated that (1) the money cannot be collected from anyone under the name of tax, charge without legal foundation, (2) the state revenues and expenditures will be executed every year after being approved by the Muvâzen-i Umumiye Law and (3) the recognition of income and expenditure as separate items. However, these principles were not practically applicable until the declaration of Second Constitutionalist Period in 1908, and taxpayers continued to gather with the will of the sultans and spend the places that the sultan approves. Until 1880, there were no institutions related to accounting and auditing in the Ottoman Empire. Because of this lack of organization, an undecided and ineffective tax collection system has emerged, and as a result, the state has lost its high income [23]. This has led to a debated and criticized state mechanism.

The publication of the first law on Ottoman public accounting also took place in this process. The first public accounting law in the Ottoman Empire was dated 1880. This law has been put into practice since 1881 and has been transformed into a system that shows the system of *Kameral Accounting*, that is, income and expense accrual depending on the budget [15]. As it is mentioned above, Kanun-i Esasi (The Constitution), which was put into effect with the Second Constitutional Monarchy in 1908, has also established the budget system that has been implemented to this day. Later on, in 1910, the first budget of the Mesrutiyet was accepted and a new accounting system without classical budget rules was established. The first public accounting law, which was drafted by the French and Belgian government accounting laws, was enacted in 1910. In the next 2 years after the application of this law, the problems in practice were revealed and the Accounting-Public Law was adopted on 26 May 1927 as a result of a 15-year study of the French, Italian and Belgian public accounting laws. This law not only describes the procedures for maintaining records in the field of public accounting but also contains some rules regulating tax, budget and commercial life with the state [24].

With the arrangement made, since the accounting system in the new system is required to be maintained in the *Kameral System*, it is not fully compatible with the two-sided recording system. In 1923, there was a transition to a new law and budget accounting to be applied according to the bilateral registration system. After the new arrangement, it is worth noting that the features of the books in the American accounting system have been utilized [15]. This law was another important step for a modern and established financial structure and formed the basis of the financial order to be established during the Republican era [22]. In 1928, with the guidelines issued, the accounts used in the public accounting system have been simplified and some kind of cameral dual-sided registration system has begun to be used. With this arrangement, the public accounting system that was started to be implemented was criticized and the system was re-opted [15]. Because, in 1927, with the Accounting-General Law, it was aimed to prepare a budget, to formulate a solid basis for financial affairs by arranging provisions, allocations and form conditions to be included in the budget.

From the 1930s onwards, the influence of the big economic crises experienced by the capitalist system around the world has shifted to the politics of the statist economy, and a change in the understanding of the equivalent budget has been experienced. In this period, the balance of the economy has become more important than the budget. In other words, the budget deficit or surplus of the budget is considered insignificant as long as it contributes to the balance in the economy. New ideologies that affected the whole world after the Second World War also had an effect in Turkey. In this process, social state and understanding of social welfare have gained importance. This approach tried to find its place in the classical budget, but as a result of the change experienced in the country, the reconstruction of the financial landscape came to the forefront [22].

For this reason, the new accounting system, which was started to be used on 1 January 1948, fully adopted double-sided registration and budgetary accounting. However, it is seen that the accounting system still does not include accrued expenses, and modern public accounting is not introduced. A more cash-based budget accounting explains the public accounting system in 1948. For this reason, the issue that is mostly discussed in this period is whether Turkey's state account is composed of a budgetary account. Because if the goal is only budget, then the system used at that time is the *Kameral Accounting* system. However, there are also parties that are separated from budgetary accounting within the system [15]. A more rational public accounting system has been established than in previous periods, but it has not been able to switch to a public accounting system that covers incomes and expenses fully accrued.

The Ottoman financial organization can be examined in two ways as the central finance and the autonomous provincial finance. This binary system is generally supported by external treasury, but in special cases, some transfers can be made in the interior with the permission from the sultan [25]. One can say that this financial system is operated by a budget tradition and there are about 50 budget examples from that day [26]. Unlike today's budgets, these budgets do not have the income item in detail, but they cover the costs in detail [25]. When the nineteenth century came, the integration of the western world began to transform the economic and financial life of the Ottoman State and all the dynamics that regulated them. In general, the public financial system, in particular, the budget system, is at the forefront of transforming areas.

Briefly, Turkey is one of the late countries in terms of modern budgeting and application of techniques. The passage of budget preparation, reparations and control rights to the national representatives became possible only after the great difficulties and delays in the late nineteenth century [27]. Reform movements have started in Tanzimat Term but these have remained in the administrative and military areas. Today's centralized financial management can be called beginning at that time. Although reforms have introduced financial management provisions such as taking gore tax for heroic financial power, bringing in the salary system, converting the Sultan's treasury and expenditures to state treasury instead of the bargaining and dues methods, there has never been a mention in the budget of the financial power [28]. Moreover, as it is stated above the development of accounting principles in the era of the Turkish Republican (1923-present) can be understood from various historical perspectives. From 1923 onwards, there have been several attempts to develop well-established principles in the accounting system.

The most important factor in the transformation between 1923 and 1950 is the establishment of the Republic of Turkey. In this period, most of the state regulations were aligned with the practices of the developed Anglo-Saxon and Continental Europe. Besides, in the period between 1950 and 1980 (1980 was the beginning of the economic liberalization in Turkey), it is seen that Jewish Professors such as Fritz Neumark, who fled from Hitler's Nazi Germany and took refuge in Turkey, constitute the public financial system. In the post-1980 period, a standard accounting system was introduced. After 1980, an understanding of performance management, aimed at improving management performance, including items such as efficiency, effectiveness, frugality, service quality, performance measurement, etc., has become a key element in many countries' reform programmes—Turkey is one of them. In the performance management framework that characterizes the results-based management system, it has become important to maintain public accounting efficient and to increase aggregate accountability for all public account and public accounts together with it.

4. Conclusion and discussion

In this study, it is aimed to explain the transition period of the public accounting system of the Ottoman from the nineteenth century to the first half of the twentieth century within the frame of institutional theory. In the Ottoman Empire, which had a similar financial system to many European countries until the middle of the eighteenth century, there was a need to analyse the budget deficits caused by internal and external borrowing in the midst of a financial crisis. The process specified in line with this requirement initiated a serious reform process in the Ottoman Empire and triggered the need to maintain the tax collection system and public accountancy. There are various reasons behind the lack of a centralized tax collection system in the Ottoman Empire. According to Balla and Johnson [18], the main reason for this is that taxmen (tax collectors) are more heterogeneous due to the breadth of the Ottoman land.

In other words, the different ethnic and religious roots of tax collectors in the Ottoman Empire hinder the centralization of the tax collection system. According to Karaman and Pamuk [3], factors such as difficult terrain conditions, differences in capital distribution and low urbanization rates made tax collection difficult compared to the smaller and more urbanized Western European countries in the Ottoman Empire. The differences in per capita national income have also caused difficulties in total taxation. In addition, wrong money policies applied in the Ottoman Empire also caused the acceleration of the effects of the process. Because foreign borrowing in the Ottoman Empire was first taken in 1854 during the Crimea War, the type of money called Kaime entered into force in 1840 and was abolished in 1862. When it came to 1861, internal and external debts were realized at 1/8 of the state expenditures [16]. The stated reasons have led tax incomes to not be able to generate the income mechanism of the state well and therefore to follow their expenses effectively.

Various improvements have been made in order to get out of this process. Ozekicioglu and Ozekicoglu [16] summarize the improvements in five basic topics. The first one is to maintain records more regularly. The second is to prepare a detailed budget. The third is the improvement of the money system. The fourth is the simplification of the tax system and the centralization of the financial centre and the improvement of the treasury and the budget. The fifth amendment is to make arrangements for the establishment of banks and similar financial institutions on 18 February 1856 in order to understand the banking sector. There was also a need to establish a state bank. Thus, the negative effects on the value of the money were tried to be prevented by the mechanism of the state bank. Each remedy made was aimed at balancing budget deficits with money and financial policies. It can be said that the most useful point of view for monitoring the financial transformation process in the mentioned Ottoman period is to evaluate the state budgets and the changes made in this area.

Table 2 summarizes the transformation process of the Ottomans which was prepared in line with the explanations made in this study. **Table 2** also maps each reformist regime to the type of institutional theory involved. The type of institutional theory in the table is designed taking into account the structure and the reasons for the reformist arrangements made. This is because DiMaggio and Powell [14], who point to the isomorphism approach in institutional theory, tend to show the social and economic cohesion of states—especially those with ambiguous

Date	Underpinnings of the reforms	Reason(s)	Application area	Type of institutional theory
Between seventeenth and nineteenth centuries	The necessity of reformer developments	Decentralized tax system, wrong monetary policy, Internal and external debt increase	Military system	Coercive isomorphism
		Ottoman turn into an open-bazaar in terms of European market	Education policies Financial system	Mimetic isomorphism
1839	Reform Edit (Tanzimat Fermanı)	To reduce the Western influence in the Ottoman Empire	The foundations of current centralist financial management have been laid	Coercive isomorphism Mimetic isomorphism Normative isomorphism
1856	Royal Edict of Reform (Islahat Fermanı)	Publication of the Budget Ordinance: the need to keep the state's income and expenditures annually and the need to make budget-related adjustments	Financial system	Coercive isomorphism Mimetic isomorphism Normative isomorphism
1859	Finance Reform Commission (Islahat-ı Maliye Komisyonu)	The commission formed by the French and English members due to the regulatory reforms in the reform period to activate the tax system and to achieve the desired result in the prevention of the economic crisis	Financial system	Mimetic isomorphism
1872	Government Budget Ordinance (Devlet-i Aliyenin Bütçe Nizamnamesi)	It is a budget law prepared in line with the need to develop and renew the tax system in line with the proposal of the Reform Commission. Based on the provisions of the French constitution, the state budget was defined and presented in 1876 constitution	Financial system	Mimetic isomorphism

http://dx.doi.org/10.5772/intechopen.68778

Date	Underpinnings of the reforms	Reason(s)	Application area	Type of institutional theory
1880	Publication of Public Accounting Law	The First Public Accounting Law: The Kameral Accounting System has been adopted in line with the influence of the developed Western States of the time	Financial system	Mimetic isomorphism
1910	Establishment of a First Budget and a new accounting system during the Constitutional Period	The first law, inspired by the French and Belgian Public Accounts Act, is the state budget	Financial system	Mimetic isomorphism
1927	General Accounting Law	France, Italy and Belgium Government Accounting Laws were taken into account again. And the problems of the first law have been tried to be solved	Financial system Trade laws	Mimetic isomorphism
1948	Transition to Double-Sided Recording Accounting System	Acceptance of a state accounting system that is compatible with capitalist new world order under Anglo-Saxon influence	Financial system	Coercive isomorphism Mimetic isomorphism Normative isomorphism

Source: This table is adopted from the related literature by the authors.

Table 2. Historical evolution of the public accounting reforms in Turkey.

aims and unreliable performance measures. In order to ensure the institutionalization of the states, the first of the manifestos constitutes a large proportion of specialized knowledge and adapts to them [13]. From this point of view, it is also easy to understand the transfer processes that are living in the national sense. It seems that isomorphic tendencies prevail in applications which are based on responding to the uncertainty that is at first economic and social in nature, that is to say those which are shaped according to the institutional environment.

Thus, the effects of ambiguity are reduced and the required application environment is prepared for the future. The level of uncertainty in such practices constitutes a driving force in terms of imitation [29]. There can be many reasons for the ambiguity that exists. The most important dynamics of the uncertainty that betray Turkey are the need to make adjustments in the decentralized tax collection system, the economic downturn after the war period, the reformist practices, economic policies, the declaration of the Republic and the industrialization efforts of the capitalist system. Turkey has tried to overcome the effects of this environment primarily with French, later German and American systems. Regulations in Turkey show that the actively taking part in the state takes place on the basis of coercive isomorphism. However, the regulations are the same as the transfer. In the later period, the emergence of the standardization phenomenon as a necessity in the whole world, and the phenomenon of globalization that accelerates it, manifests itself in the practice of sometimes coercive and sometimes normative isomorphic tendencies for a country that is trying to achieve political harmony within the global system.

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References

[1] Barbu EM, Farcane N, Popa A. Looking for an accounting identity: The case of Romania during the 20th century. Cahier de recherche. 2010;**03**(E2):1-23. DOI: http://hal.archivesouvertes.fr/docs/00/53/47/41/PDF/cr_2010_03_E2.pdf

[2] Previts GJ, Parker LD, Coffmann ED. An accounting historiography: subject matter and methodology. Abacus. 1990;**26**(2):136-158.

[3] Karaman KK, Pamuk S. Ottoman state finances in European perspective, 1500-1914. The Journal of Economic History. 2010;**70**(03):593-629.

[4] Hopwood AG. Accounting and organisation change. Accounting, Auditing & Accountability Journal. 1988;**3**(1):7-17.

[5] Dillard JF, Rigsby JT, Goodman C. The making and remarking of organization context—duality and the institutional context. Accounting, Auditing & Accountability Journal. 2004;**17**(4):506-542.

[6] Rodrigues LL, Craig R. Assessing international accounting harmonization using hegelian dialectic, isomorphism and Foucault. Critical Perspectives on Accounting. 2007;**18**: 739-757.

[7] Covaleski MA, Dirsmith MW, Rittenberg L. Jurisdictional disputes over professional work: The institutionalization of the global knowledge expert. Accounting, Organizations and Society. 2003;**28**:323-355.

[8] Loft A. Accountancy and the First World War. In: Anthony GH, Miller P, editors. Accounting As Social and Institutional Practice. Cambridge Studies in Management. USA: Cambridge University Press; 1994. pp. 116-137.

[9] Tamer B and Seymen OA. Yönetim ve Örgüt Düsüncesinde Kurumsalcılık, Yeni Kurumsalcılık ve Kurumsal Esbiçimlilik. Fırat Üniversitesi Sosyal Bilimler Dergisi. 2006; **16**(1):223-254.

[10] Apaydın F. Kurumsal Teori ve İsletmelerin Kurumsallasması. C.Ü. İktisadi ve İdari Bilimler Dergisi. 2009;**10**(1):1-22.

[11] Scott WR. The adolescence of institutional theory. Administrative Science Quarterly. 1987;**32**(4, December):493-511.

[12] Özen S. Yeni Kurumsal Kuram: Örgütleri Çözümlemede Yeni Ufuklar ve Yeni Sorunlar. In: A. Selami Sargut ve Sükrü Özen, editor. Örgüt Kuramları. 2nd ed. Ankara: İmge Kitabevi; 2007.

[13] Carpenter VL, Feroz EH. Institutional theory and accounting rule choice: An analysis of four US state governments' decisions to adopt generally accepted accounting principles. Accounting, Organizations and Society. 2001;**26**:565-596.

[14] DiMaggio PJ, Powell WW. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review. 1983;**48**(2, April):147-160.

[15] Akdeniz G. Devlet Muhasebesi. İstanbul: İsmail Akgün Matbaası; 1948

[16] Ozekicioglu S, Ozekicioglu H. First borrowing period at Ottoman Empire (1854-1876): Budget policies and consequences. Business and Economic Horizons. 2010;**3**(3):28-46.

[17] Raccagni M. The French economic interests in the Ottoman Empire. International Journal of Middle East Studies. 1980;**11**(03):339-376.

[18] Balla E, Johnson ND. Fiscal crisis and institutional change in the Ottoman Empire and France. The Journal of Economic History. 2009;**69**(03):809-845.

[19] Buluttekin MB. The assortment of agriculture In Istanbul glimpses from Istanbul Ahkâm registers in the eighteenth-century (1757-1760). Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (DÜSBED). 2015;**7**:55-89.

[20] Quataert D. The Ottoman Empire, 1700-1922. 2nd ed. UK: Cambridge University Press; 2005

[21] Cosgel MM, Miceli TJ. Tax collection in history: Public institutions and institutional change in the Ottoman Empire. In: 2006 August; Helsinki. 2006

[22] Özsen U. Cumhuriyet Dönemi Bütçe Yönetimi Üzerine Bir İnceleme [thesis]. Ankara: Ankara Üniversitesi, SBE, Kamu Yönetimi ve Siyaset Bilimi Anabilim Dalı; 2006

[23] Ecchia S. The Economic Policy of the Ottoman Empire (1876-1922) [Internet]. 2010. Available from: https://mpra.ub.uni-muenchen.de/42603/ [Accessed: 22 February 2017]

[24] Nihat S. Devlet Muhasebesi Usulü. İstanbul: Arkadas Matbaası; 1935

[25] Bulus A. Türk İktisat Politikalarının Tarihi Temelleri. 4th ed. Konya: Çizgi Yayınevi; 2015

[26] Karaman K, Pamuk S. Avrupa devletleriyle Bir Karsılastırma: Osmanlı Bütçeleri ve Mali Yapının Evrimi. Toplumsal Tarih. 2009;**Kasım**(191):26-33.

[27] Edizdoğan N. Kamu Bütçesi. 4th ed. Bursa: Ekin Yayınevi; 1998

[28] Coskun G. Devlet Bütçesi Türk Bütçe Sistemi. 6th ed. Ankara: Turhan Kitbevi; 2000

[29] Gyasi AK. Adoption of International Financial Standards in Developing Countries—The Case of Ghana [dissertation]. 2010. Available from: https://publications.theseus.fi/bitstream/handle/10024/15526/ANTWI_KOFI_GYASI.pdf?sequence=1

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Chapter 16

The Factors Used to Create Performance-Based Budgeting: A Research on Turkey

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Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.68920

Abstract

Performance-based budgeting (PBB) is the practice of developing flexible financial management tools to increase the efficiency and productivity of public institutions both in developed and developing countries such as Turkey. It can be seen from international literature gathered as a result of researches that developing countries have come a long way in developing performance-based budgeting activities. In developed economies, successful international institutions such as Organization for Economic Cooperation and Development (OECD) and International Monetary Fund (IMF) promote the implementation of performance-based budgeting for a developing world. Fiscal transparency, medium-term expenditure framework, and other institutional arrangements are factors effective in developing performance-based budgeting. Budget experts regard these factors as important factors, and the view that it is difficult to implement these prevails. Within the context of this theory, the main purpose of this study is to determine the preparation and implementation of performance-based budgeting in public institutions of developing countries such as Turkey, which has an important economy in the world, and to measure the perception levels of employees working in these institutions. As a result of the confirmatory factor analysis (CFA) based on the main findings of the study, goodness-of-fit values of the measurement model were found to be sufficient. Independent *t* test and one-way ANOVA analyses were conducted to find out the perception levels of the participants in the study. As a result of the analyses, significant differences were found between demographic features and perception levels.

Keywords: confirmatory factor analysis, performance-based budgeting, perception, fiscal transparency, Turkey

1. Introduction

Performance-based budgeting (PBB) has been developed in many countries within the frame of a new administrative mentality based on the performance of public sector as of 1980s, which included primary objectives such as increasing the quality of public services, reinforcing decision-making processes by getting more information about the activities of the state, and ensuring accountability and fiscal transparency. With the aforementioned objectives, governments focused on the effective and productive use of public funding and, within this context, tended toward allocation of resources in line with the results reached through goods and services produced rather than information regarding the input in budget processes Although it does not have only one accepted model in the world, performance-based budgeting, which is defined as a type of budgeting that associates resources with measureable objectives in the widest sense, has found area of implementation in many developed countries in various forms with its outcome-oriented mode of management. Within this context, while some countries followed a transition process that included all the public administration gradually, other countries allowed public administration to switch to the application in process on a volunteer basis [1].

New Zealand and Australia at the end of 1980s, Canada, Denmark, Finland, France, Holland, Sweden, England, and the USA in 1990s, and Austria, Germany, and Switzerland at the beginning of 2000s started various practices of performance-based management, budgeting, and reporting.

"The law no. 5018 on public financial management and control" issued at the end of 2003 in Turkey is about the efficient, economic, and effective use of public resources. With the efficient and effective use of resources, accountability and fiscal transparency will also increase in institutions. Performance-based budgeting practices started with the Article 9 of the Law no. 5018 on public financial management and control, which makes the statement that public institutions prepare their budgets in line with the mission, vision, strategic goals, and targets in strategic plans and based on performance.

The reasons for switching to performance-based budgeting system include public financial crises, inefficient use of public resources, increase in the amount and quality of public expenditures, rapid changes in technology, and the new mode of public administration [2].

With the development of democratic systems in the whole world, public services are performed in line with the needs of society. Accordingly, there has been an increase and variety in demands from administrators directed at public services. The increase in the expectations of the society for public services has led to an increase in public spending and tax load, which in turn made it imperative to ensure efficiency in the use of resources.

Strategic planning-oriented PBB model: the model makes it imperative for public institutions to prepare strategic plan, and these plans constitute the basis of preparing the budgets of public institution [3].

- Performance agreement-oriented PBB model: in this model in which it is not imperative to prepare strategic planning in terms of public institutions, performance agreements have

http://dx.doi.org/10.5772/intechopen.68920

to be made with the top executives of the institution in order to be able to maximize the performance of employees.

- Budget format PBB model: unlike the other two models, no document is prepared to measure performance except the budget text in this model. Thus, the budget has information about only performance and allowance. In addition, there is no independent performance report.

Performance programs bring an output and result-oriented budgeting system to the forefront by making performance information available as well as fiscal information in the budget documents and thus bring fiscal transparency and accountability principles into force to which our new public financial administration system depends on [1].

The items in the questionnaire given to employees in this study were designed on four basic factors. Confirmatory factor analysis (CFA) analysis results show that the goodness-of-fit values of measurement model are sufficient. Significant differences were found between the genders and education levels of the participants in terms of performance-based budgeting practices level of perception.

2. Literature review

Some of the national and international literature studies about performance-based budgeting practices and researches and the key findings of these are explained below.

In Egeli et al.'s study [5], titled "Analysis of Critical Control Points of Strategic Planning Oriented Performance Based Budgeting System: The Applications of Turkey's Public Institutions," a general conclusion was reached that the system may not be effectively applied before the completion of all steps toward the performance-based budgeting within the framework of the results obtained from the critical control points and analysis of public institutions in Turkey [5].

According to Kim and Park's study [6] titled "Performance Budgeting in Korea," Korea is in the initial stages of implementing performance-based budgeting; it is therefore too early to form an assessment. However, it has been concluded that it should be noted that having introduced performance-based budgeting as one component within a broader range of comprehensive reforms has helped to lower resistance and resolve institutional problems [6].

Jordan and Hackbart's study [7], titled "The Goals and Implementation Success of State Performance Based Budgeting," concluded that accountability can be seen as a goal, rather than budget allocation, makes a stronger foundation for determining performance-based budget success [7].

In Çildir's study [8] titled "An Assessment of United Kingdom's Performance Based Budgeting System," since the application of Public Service Agreement started in England in 1998, a lot of changes have occurred. Each expenditure analysis underwent some changes in terms of their structure. Ever since it began to be applied, the Public Services Agreement framework has guided the government in terms of the increases in public expenditures. The Public Services Agreement places importance on focusing on the data that create a problem for those who make use of management inputs and public services, prioritizing public services that should specifically be conducted and providing more flexibility [8].

In their study titled "Theoretical and Practical Problems of Performance-Based Budgeting System," Çelebi and Kovancılar [9] stated that advantages of performance-based budget system in terms of public fiscal management were effective in their being preferred by other countries. However, it was also stated that the aforementioned system included some theoretical and practical problems and difficulties within the structure of the system [9].

In their study titled "Performance-Based Budgeting Process in Turkey: Kocaeli University Case," Badem et al. [10] concluded that if the performance-based budgeting system is fully applied in Turkey, an awareness of transparency and calling to account will be developed in the society; policies and strategic goals will be evaluated by everyone; and the performances and policies of top executives in both the government and the public institutions will become questionable. In addition, by means of PBB, institutions' expenditures will be questioned through performance auditing, and it will be possible to find out whether public resources are used economically and effectively. In terms of Turkey, time, interest, care, raising an awareness of questioning in the public, and increasing the legal sanctions of this are evaluated as what is needed for a full implementation of PBB [10].

In Liu's study [4] titled "What Drives Performance Budgeting to Perform? A Survey Examination in Taiwan," it was found that while there was high consensus over international experiences in Taiwan, respondents in different categories featured slightly different attitude. The survey results revealed that experts in academia were more affirmative toward auxiliary institutional arrangements for performance budgeting compared to the practitioners in selective government's agencies [4].

Demirel's [11] study titled "The Financial Aspect of Performance: Performance Based Budget" aimed to ensure fiscal transparency and accountability through performance-based budgeting. Performance-based budgeting, which is indispensable in popularizing performance-based practices in public administration, is also closely related with a great number of concepts. One of these concepts, strategic planning, contributes to the preparation process of performance-based budgeting through missions which clearly reveal the duties and functions of the institution with future visions. Performance programs and indicators reveal the adaptation capacity of an institution to specified strategies. Announcement of activity reports prepares the basis for a healthy comparison of past and future results [11].

In their study titled "Performance-Based Budget Arrangements, the Implementation Process and Advancements in Turkey," Karacan and Yazıcı [12] stated that the Law no. 5018 brought radical changes in the financial management and control system, the findings, evaluations, and suggestions related to the ownership, coordination, role of the parliament, capacity, calendar, reporting, and budget connections in Turkey undergone during the 10-year period. They stated that the public management sector is a sector where the outputs and results are seen in the long term. They also added that the best practices are experienced for long years in planning and nearly 30 years in management and PBB. As a result, when the best practices and other applications in the world are considered, they concluded that we can be optimist about the future of the PBB in Turkey [12].

In Ciubotaru and Hincu's study [13], titled "Implementing Performance-Based Budgeting in Republic of Moldova," the researches stated that the analysis of performance indicators shows the linkages between the policies, and budgeting, as well as budgeting performance in compliance with European principles in this area [13].

3. Budget reform in Turkey Law no. 5018

Public Financial Management and Control Law no. 5018 foresees public administrations to prepare strategic plans which include their medium- and long-term objectives, basic principles and policies, targets and priorities, performance criteria, the methods to reach these, and their resource distributions and also to prepare these in line with and based on the missions, visions, strategic goals, and targets included in the strategic plans of budgets [1].

Public administrations prepare strategic plans with participatory methods in order to create future missions and visions, to find out strategic objectives and measureable targets, to measure performance in line with present indicators, and to follow and evaluate this process within the framework of development plans, programs, applicable law, and adapted basic principles. Public institutions prepare their budgets in line with the mission, vision, strategic goal, and targets in their strategic plans and also based on performance. The Ministry of Finance is authorized to audit the suitability of public institutions' budgets to the performance indicators in strategic plans and other issues related with the activities of institutions and their performance-based budgeting. Performance indicators, which are determined by the Ministry of Finance, the under secretariat of state planning organization, and the relevant public administration appear in the budgets of institutions. Performance audits take place within the framework of these indicators [14].

Performance planning has been predicted to take place through strategic plan. Strategic plan, according to its definition in Article 3 of Law no. 5018, refers to the plan which includes medium- and long-term goals, basic principles and policies, objectives and priorities, and performance indicators of public administrations, as well as the methods and the resource distribution to achieve these. In the legislation, the period of strategic plans has been predicted as a period of 5 years within the scope of regulations related to the period, updating and renewing. Updating of strategic plans has been made possible only 2 years after they have been implemented. Updating has been defined as quantitative changes in goals without changing the mission, vision, and goals of the strategic plan [15].

Performance-based budgeting, proposed by Law no. 5018, has been defined as the kind of budgeting that shows the information about what public institutions will do with the budget allocated to them. The basic expectations of countries which have adapted or which are about to adapt performance-based budgeting from this system are classified as follows [16]:

- Effective distribution and use of resources,
- Establishing a mode of administration based on targets,
- Reinforcement of the processes of preparing, implementing, and auditing a budget,
- Increasing the quality of service, and
- Ensuring fiscal transparency.

Fiscal transparency allows a better analysis and assessment of the government's budget policies. This in turn allows development of programs and more efficient use of resources. Thus, one of the eventual objectives of reforms in budget systems, maybe the most important, is fiscal transparency [17].

The concept of fiscal transparency entered into application with performance-based budgeting. Fiscal transparency makes it obligatory to provide flow of information to those concerned and the public about the performances of public institutions. To do this, public institutions prepare activity reports, and they present these for public use in electronic or printed version. The objective of fiscal transparency is to prevent exploitation and waste in public resources. However, activity reports prepared by public institutions cannot provide the expected benefits. In addition to having too much information, these reports are far from reflecting the performance of public institutions [18].

Performance-based budgeting assumes that all the officers, administrators, and executives in the process have the necessary skills and equipment. A full implementation of a real performance-based budgeting will take years, and it requires administrative capacity. Most of the countries, especially developing countries, seem to be deprived of institutional capacity in this sense. Within this context, the perception levels of employees working in institutions and departments, in which it is essential to implement performance-based budgeting, will be examined. In addition, employees' fiscal transparency and medium-term expenditure frameworks and their views about other factors will be analyzed.

4. Research design

Fiscal transparency, medium-term expenditure framework, and other institutional arrangements are factors effective in developing performance-based budgeting. Budget experts regard these factors as important factors, and the view that it is difficult to implement these prevails. Within the context of this theory, the main purpose of this study is to determine the preparation and implementation of performance-based budgeting in public institutions of developing countries such as Turkey, which has an important economy in the world, and to measure the perception levels of employees working in these institutions. In the study, a questionnaire was given to employees of public institutions in Turkey through question forms. The question forms were prepared by using a study from Taiwan (Liu [4]), which is a developing country like Turkey. The question forms were designed on four basic factors. The first factor is about measuring the comprehension or perception level of performance-based budgeting activity. The second factor is about the role of performance-based budgeting

http://dx.doi.org/10.5772/intechopen.68920

on fiscal transparency. The third factor is about how performance-based budgeting influences medium-term expenditure frameworks. The fourth factor consists of elements that in performance-based budgeting implementation, other institutional organizations may be necessary. The factors in the question forms were formed with five Likert scale. The universe of the study consists of institutions within the body of the Ministry of Finance, which implement performance-based budgeting, universities, provincial special administrations, and municipalities, which have a level of information about performance-based budgeting practices.

Since the number of staff working in institutions which have performance-based budgeting is unknown and it was not possible to reach the employees in the universe and due to limitations such as the cost of data collection and time, sampling was thought to be appropriate. The exact number of the employees in the universe of this study is unknown. Thus, the following formula was used to find out the sample size [19]:

$$n = \frac{z^2(pq)}{e^2} \tag{1}$$

In this formula,

n is the sample size,

p is the incidence of the phenomenon examined, the probability of occurrence (50%),

q is the non-incidence of the phenomenon examined, the probability of non-occurrence $(1 - p)$,

e is the level of acceptable error (±5%), and

z is the standard error within the specified confidence interval (95%).

Since the universe is unknown in this study, the incidence (p) and non-incidence (q) of the phenomenon examined was taken as 0.5. Error tolerance was accepted as 0.05, while the level of confidence was accepted as 95%. When these values are inserted in the formula, the sample size was calculated as follows:

$$\frac{1.96^2(0.5 \times 0.5)}{0.05^2} = 385 \tag{2}$$

The sample size consists of 385 people. In this study, the first factor is about measuring the comprehension or perception level of performance-based budgeting activity. The second factor is about the role of performance-based budgeting on fiscal transparency. The third factor is about how performance-based budgeting influences medium-term expenditure frameworks. The fourth factor consists of elements that in performance-based budgeting implementation, other institutional organizations may be necessary. After the sample size was determined as 385, in order to reach the desired sample size, samples were gathered from different public institutions that use performance-based budgeting and 416 questionnaire data were obtained for analysis from different cities and public institutions as much as possible. The confirmatory factor analysis (CFA) method was used to test the suitability of each dimension of the factors used in performance-based budgeting practice in the study.

The confirmatory factor analysis (CFA) is an analysis method that is frequently used in developing measurement models, and it provides significant conveniences. The CFA is used in both scale development and validity analysis as well as in the verification of a present structure [20].

5. Empirical results

In terms of the demographic features of the data obtained from the study, data about the individuals' genders, educational status, occupational experiences, and working positions were collected, and the data obtained were shown in **Table 1** with frequency and percentages.

According to the descriptive analysis results, 66% of the participants are males, while 34% are females. In terms of education, it can be seen that 72% are undergraduates, while 17% have master's degree. In terms of professional experience, 57% have 1–5 years of professional experience, 21% have 6–10 years of professional experience, 9% have 11–15 years of professional experience, and 13% have 16 and over years of professional experience. About 41% of the participants are staff directly responsible for the performance-based budgeting activities, 6% are executives, 7% are auditors, and 46% are assistant qualified personnel for performance-based budgeting activities. In **Table 2**, sub-dimensions related to performance-based budgeting are given.

The confirmatory factor analysis (CFA) was conducted for the performance-based budgeting scale used in the study (**Figure 1**). As a result of CFA, goodness-of-fit values such as Chi-square statistics (χ^2), Chi-square/Degree of freedom (χ^2/df), root mean square error of approximation (RMSEA), comparative fit index (CFI), goodness-of-fit index (GFI), and AGFI were checked first, and the fitness of the model was found.

As a result of CFA, goodness-of-fit values of the measurement model were found to be sufficient (χ^2 = 227.360; sd = 84; χ^2/sd = 2.707; CFI = 0.87; GFI = 0.93; AGFI = 0.89; RMSEA = 0.067). The most commonly used goodness-of-fit indices are Chi-square statistics (χ^2), Chi-square/degree of freedom (χ^2/df), RMSEA (root mean square error of approximation) and CFI (comparative fit index), goodness-of-fit index (GFI), and adjusted goodness of fit. (χ^2/df), an acceptable model fit value less than 3, a value equal to or less than 0.05 for RMSEA means perfect fit and a value equal to or less than 0.08 means acceptable fit. For AGFI, GFI, and CFI, values equal to and more than show perfect fit, while values between 0.85 and 0.95 show acceptable fit [21–23]. In addition, according to another method that examines whether discriminant validity is met, correlation coefficients between the specified dimensions differ between −0.110 and 0.602. Since these values are less than 80, it can be said that discriminant validity is met [24].

Independent *t* test and one-way ANOVA analysis were used to show whether the perceptions of the participants differed on performance-based budgeting.

In **Table 3**, significant difference was found between female employees and male employees in terms of *level of perception about performance budgeting* [$t_{(414)} = -2.145$; $P < 0.05$]. When the

Demographic features	Frequency	Percentage
Gender		
Female	143	34
Male	273	66
Education		
High school	21	5
Two-year degree	21	5
Undergraduate	299	72
Master's	72	17
Doctorate	2	1
Professional experience		
1–5 years	238	57
6–10 years	87	21
11–15 years	37	9
16 years and above	54	13
Professional field		
Executive	25	6
Staff directly responsible for the performance-based budgeting activities	171	41
Auditor	29	7
Assistant qualified personnel for performance-based budgeting activities	191	46

Table 1. Results of demographic features.

reason for this difference was examined, it was found that when compared with male employees ($\mu = 3.68$; sd = 0.876), female employees ($\mu = 3.48$; sd = 0.933) agreed less with the thought that their level of perception about performance-based budgeting was insufficient.

Similarly, when the Independent t test results about the expression "Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful" were analyzed in terms of gender, a significant difference was found between female employees and male employees in terms of this expression ($t_{(414)} = 3.067$; $P < 0.005$). When the reason for this difference was examined, it was found that when compared with male employees ($\mu = 3.23$; sd = 0.841), female employees ($\mu = 3.13$; sd = 0.887) agreed less with the thought that the Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful.

Under the assumption that the data obtained from the employees were homogeneous, when the ANOVA analysis results were examined in terms of level of education in **Table 4**,

Level of perception	A1	Your level of perception about performance-based budgeting
	A2	Your opinion about the implementation of performance-based budgeting in OECD countries, in which Turkey is a member
	A3	Your opinion about the implementation of performance-based budgeting in Turkey
Fiscal transparency	B1	Public sector should explain the policies that will be implemented clearly to the public for performance-based budgeting to be successful
	B2	The state's asset-liability management policy should be clearly defined for performance-based budgeting to be successful
	B3	Same policies should be used in preparing fiscal reports for performance-based budgeting to be successful
	B4	The state's activities and finance should be audited with transparency by national audit firms for performance-based budgeting to be successful
Medium-term expenditure frameworks	C1	Medium-term income and expenditure frameworks should be prepared with macroeconomic models for performance-based budgeting to be successful
	C2	All ministries should develop a medium-term expenditure ceiling to present to the Ministry of Finance for performance-based budgeting to be successful
	C3	Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful
	C4	Ministry of Finance should hold regular meetings periodically for all ministries about medium-term expenditure ceilings for performance-based budgeting to be successful
Other institutional organizations	D1	The support and assurance of agency leaders are essential for performance-based budgeting to be successful
	D2	Professional skills of employees of the institution are essential for performance-based budgeting to be successful
	D3	A customer-oriented organizational culture of the institution is essential for performance-based budgeting to be successful
	D4	Performance evaluation involving citizen participation is essential for performance-based budgeting to be successful
Staff information	E1	Gender?
	E2	Level of education?
	E3	Professional experience with budgeting activities?
	E4	Professional field (work position)

Table 2. Distribution of items in sub-dimensions.

a significant difference was found between participants with undergraduate and master's degree and participants with doctorate degree [$F_{(4\text{-}411)} = 3.459$; $P < 0.05$] in terms of *"opinion about the implementation of performance-based budgeting in OECD countries, in which Turkey is a member."* When the reason for this difference was analyzed according to the Tukey test, it was found that compared with employees with undergraduate degree (μ = 3.14)

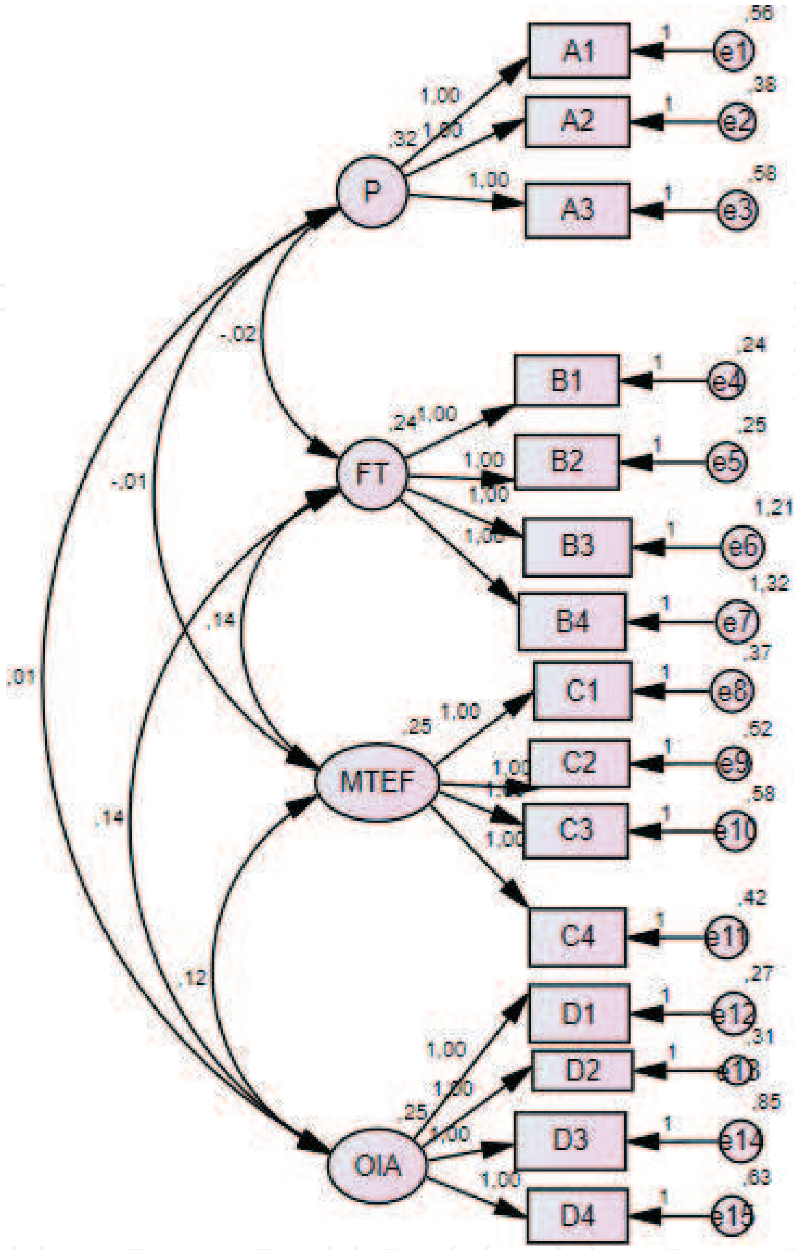

Figure 1. General CFA model goodness of fit.

and employees with master's degree (μ = 3.14), employees with doctorate degree (μ = 5) thought that the implementation of performance-based budgeting in Organization for Economic Cooperation and Development (OECD) countries, in which Turkey is a member, is very sufficient.

In terms of Turkey's performance-based budgeting implementations, significant differences were found between both high school graduate employees and employees with undergraduate and master's degree and between employees with master's degree and employees with doctorate degree [$F_{(4\text{-}411)}$ = 6.238; P < 0.01]. According to Tukey test results, which was conducted to show the reason of differences, it was found that when high school graduate

Items		Levene's test for equality of variances				
		F	*Sig.*	*t*	*df*	*Sig. (2-tailed)*
Your level of perception about performance budgeting	Equal variances assumed	1.450	0.229	-2.188	414	0.029
	Equal variances not assumed			−2.145*	273.037	0.033
Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful	Equal variances assumed	22.898	0.000	2.876	414	0.004
	Equal variances not assumed			3.067	343.883	0.002
	Equal variances not assumed			0.114	314.385	0.910

*$P < 0.05$; $N = 414$.

Table 3. Independent *t* test statistics of performance-based budgeting in terms of gender.

employees (μ = 3.52) were compared with employees with undergraduate degree (μ = 2.76) and master's degree (μ = 2.76), they thought that performance-based budgeting implementations in Turkey are very sufficient. In addition, employees with doctorate degree (μ = 3.50) rather than employees with master's degree (μ = 2.76) accept that performance-based budgeting implementations in Turkey are more sufficient.

As can be seen from **Table 5**, "level of perception about performance-based budgeting" differs in terms of work position [$F_{(4\text{-}412)}$ = 6.410; P < 0.01]. According to the Tukey test, the reason for the difference is the fact that the staff directly responsible for performance-based budgeting activities (μ = 3.73) believe that their level of perception about performance-based budgeting is more sufficient when compared with assistant qualified personnel for performance-based budgeting activities (μ = 3.33).

On the other hand, "opinion about the implementation of performance-based budgeting in Turkey" also differs in terms of work position [$F_{(4\text{-}412)}$ = 2.631; P < 0.05]. According to the Tukey test, the reason for the difference is the fact that the staff directly responsible for performance-based budgeting activities (μ = 2.65) think that the implementation of performance-based budgeting in Turkey is more sufficient when compared with assistant qualified personnel for performance-based budgeting activities (μ = 2.92).

The perceptions about the expression "Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful" also differ in terms of work position [$F_{(4\text{-}412)}$ = 3.091; P < 0.05]. When Tukey test results are examined, the reason for this difference is the fact that auditors (μ = 3.31) agree with this view less than assistant qualified personnel for performance-based budgeting activities (μ = 3.81).

Finally, the perceptions about the expression *"Performance evaluation involving citizen participation is essential for performance-based budgeting to be successful"* also differ in terms of work position [$F_{(4\text{-}412)}$ = 6.065; P < 0.05]. When Tukey test results are examined, the reason for this difference is the fact the auditors (μ = 3.20) agree with the approach less when compared with executives (μ = 3.96), staff directly responsible for performance-based budgeting

ANOVA

		Sum of squares	*df*	Mean square	*F*	*Sig.*
Your opinion about the implementation of performance-based budgeting in OECD countries, in which Turkey is a member	Between groups	9940	4	2.485	3.459	0.009
	Within groups	295.288	411	0.718		
	Total	305.228	415			
Your opinion about the implementation of performance-based budgeting in Turkey	Between groups	22.966	4	5.741	6.238	0.000
	Within groups	378.262	411	0.920		
	Total	401.228	415			

Table 4. Statistics of one-way ANOVA for education level.

ANOVA						
		Sum of squares	***df***	**Mean square**	***F***	***Sig.***
Your level of perception about performance-based budgeting	Between groups	15.394	3	5.131	6.410	0.000
	Within groups	329.828	412	0.801		
	Total	345.221	415			
Your opinion about the implementation of performance-based budgeting in Turkey	Between groups	7.541	3	2.514	2.631	0.050
	Within groups	393.687	412	0.956		
	Total	401.228	415			
	Within groups	605.186	412	1.469		
	Total	607.962	415			
	Within groups	356.565	412	0.865		
	Total	359.094	415			
Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful	Between groups	8970	3	2.990	3.091	0.027
	Within groups	398.509	412	0.967		
	Total	407.478	415			
Performance evaluation involving citizen participation is essential for performance-based budgeting to be successful	Between groups	18.191	3	6.064	6.065	0.000
	Within groups	411.941	412	1.000		
	Total	430.132	415			

Table 5. Statistics of one-way ANOVA for work position.

http://dx.doi.org/10.5772/intechopen.68920

activities (μ = 4.02) and assistant qualified personnel for performance-based budgeting activities (μ = 3.96).

No differences were found in other expressions about performance-based budgeting in terms of gender, level of education, work position, and professional experience.

6. Conclusion and evaluations

According to key findings obtained as a result of the study, the confirmatory factor analysis showed that goodness-of-fit values were sufficient for the measurement model. Independent *t* test and one-way ANOVA analysis were conducted to show whether the perception levels of the participants differed. According to the findings, a significant difference was found between female employees and male employees in terms of the perception levels about performance-based budgeting. When the Independent *t* test results were examined about the expression "Ministry of Finance should develop medium-term expenditure ceilings in all ministries for performance-based budgeting to be successful," significant difference was found between female employees and male employees in terms of this expression. When the ANOVA analysis results were examined in terms of the level of education, significant difference was found between participants with undergraduate and master's degree and participants with doctorate degree in terms of "opinion about the implementation of performance-based budgeting in OECD countries, in which Turkey is a member." Perception levels about performance-based budgeting differ in terms of work position.

In terms of Turkey's performance-based budgeting implementations, significant differences were found between both high school graduate employees and employees with undergraduate and master's degree and between employees with master's degree and employees with doctorate degree. Finally, perceptions about the expression "Performance evaluation involving citizen participation is essential for performance-based budgeting to be successful" also differed in terms of work position.

No differences were found in other expressions about performance-based budgeting in terms of gender, level of education, work position, and professional experience.

Importance should be attached to performance-based budgeting in public institutions, and institutions should organize meetings and briefings to emphasize the importance of performance-based budgeting. Especially at the end of the year, expenditures of institutions should be presented online in detail in terms of transparency and accountability. Public audition should be made independent, and its activities should be increased. Legislation should be developed for these. Performance-based wage for employees will increase the efficiency of performance-based budgeting. It is also thought that public institutions should be audited by a national audit firm in terms of fiscal transparency. It has been stated that only the necessities of the legislation are realized in public institutions within the context of performance-based budgeting. In terms of medium-term expenditure frameworks, in case of a change in the policies of the institution, institutions should be able to update their activities and expenditure frameworks, and there should not be strict rules about updates. Performance-based budgeting activities should be seen not as written works on documents, but as policies with which institutions can realize their missions, analyze their visions, and be eager about providing service. At this stage, it seems important both to adopt the process and to control it with audit mechanisms.

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References

[1] Performans Programı Hazırlama Rehberi [Internet]. 2009. Available from: www.bumko.gov.tr/PEBhttp://peb.bumko.gov.tr/Eklenti/4587,performansrehberfinalpdf.pdf [Accessed: October 2, 2017]

[2] Bal T. Applicability of alternative models in Turkey within the framework of performance based budgeting (PBB) system. Sayıştay Journal. 2015;**96**:25-54

[3] Erüz E. 5018 Sayılı kanuna göre performans esaslı bütçeleme. In: Aktan C C, editor. Kamu mali yönetiminde stratejik planlama ve performans esaslı bütçeleme. Ankara: Seçkin; 2006. pp. 217-236

[4] Liu LC. What drives performance budgeting to perform? A survey examination in Taiwan. Public Administration Research. 2013;**2**:58-72

[5] Egeli, H, Akdeniz A, Aksaraylı M, Tüğen K, Özen A. Analysis of critical control points of strategic planning oriented performance based budgeting system: The applications of Turkey's public institutions. Dokuz Eylül Üniversitesi I.I.B.F. Journal. 2007;**1**:27-47

[6] Kim JM, Nowook P. Performance budgeting in Korea. OECD Journal on Budgeting. 2007;**4**:1-11. ISSN 1608-7143

[7] Jordan MM, Hackbart M. The goals and implementation success of state performance-based budgeting. Journal of Public Budgeting Accounting & Financial Management. 2005;**17**(4):471-487

[8] Çildir M. An assessment of United Kingdom's performance based budgeting system. Eskişehir Osmangazi University SBE Journal. 2010;**11**(2):217-228

[9] Çelebi AK, Kovancılar B. Theoretical and practical problems of performance-based budgeting system. Yönetim ve Ekonomi. 2012;**19**(1):1-18

[10] Badem A. C, Kılınç Y. Kavas T. Performance based budgeting process in Turkey: Kocaeli University case", Kocaeli University SBE Journal. 2013;**26**:77-104

[11] Demokaan D. The financial aspect of performance: Performance based budget. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi. 2015;**19**(1):265-282

[12] Karacan E, Yazıcı K. Performance based budget arrangements, the implementation process and advancements in Turkey. International Journal of Business and Social Science. 2015;**4**(1):62-79

[13] Ciubotaru, M, Hinc V. Implementing performance-based budgeting in republic of Moldova. Risk in the Contemporary Economy, Proceedings Conference. 2016. pp. 267-272. ISSN-L 2067-0532 ISSN online 2344-5386

[14] Aktan CC, Tüğen K. Performance based budgeting systems. Aktan CC, editor. Kamu mali yönetiminde stratejik planlama ve performans esaslı bütçeleme. Ankara: Seçkin. 2006. pp. 205-216

[15] Şahin İpek EA. Kamu Kesiminde performans yönetim aracı olarak büyükşehir belediyeleri örneği performans esaslı bütçeleme sistemi: Büyükşehir belediyesi örneği. Ankara: Türkiye Belediyeler Birliği; 2013. ISBN: 978-975-6311-75-2

[16] OECD. Public sector modernization: Governing for performance. OECD Policy Brief. OECD Observer. 2004:1-7

[17] Cura S. Türkiye'de saydamlığı sağlamaya yönelik bir uygulama: Analitik bütçe sınıflandırılması. Aktan CC, editor. Kamu mali yönetiminde stratejik planlama ve performans esaslı bütçeleme. Ankara: Seçkin; 2006. pp. 238-255

[18] Tüğen K, Özen A. Türkiye'de performans esaslı bütçeleme sistemi uygulamasının değerlendirilmesi. Kamu Mali Yönetim ve Denetim Sempozyumu Kitabı; Ege Üniversitesi 25-27 Mart 2011; pp. 110-119

[19] Chi CGQ, Qu H. Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. Journal of Tourism Management. 2008;**29**:624-636

[20] Aytaç M, Öngen B. Doğrulayıcı faktör analizi ile yeni çevresel paradigma ölçeğinin yapı geçerliliğinin incelenmesi. İstatistikçiler Dergisi. 2012;**5**:14-22

[21] Jöreskog K, Sörbom D. Structural Equation Modeling with the Simplis Command Language. Hillsdale, NJ: Lawrence Erlbaum Associates; 1993

[22] Çalık M, Altunışık R, Sütütemiz N. Bütünleşik pazarlama iletişimi, marka performansı ve pazar performansı ilişkisinin incelenmesi. International Journal of Management Economics and Business. 2013;**9**(19):137-162. ISSN:2147-9208 E-ISSN:2147-9194

[23] Schermelleh EK, Mossbrugger H, Müller H. Evaluating the fit of structural equation models: Test of significance and descriptive goodness of fit measures. Methods of Psychological Research Online. 2003;**8**(2):23-74

[24] Kline RB. Principles and Practice of Structural Equation Modeling. 3rd ed. New York/London: The Guilford Press; 2011. ISBN 978-1-60623-876-9

Chapter 17

The Managerial Perspective and Systems of Accountability in Judicial Offices

Ubaldo Comite

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/67555

Abstract

In Italy, the machinery of justice has been, on more than one occasion, the subject of criticism. For the most part, the criticism has been relative to the slowness of trials and the inadequacy of the judicial system, deemed not capable of confronting the request for continuously evolving justice in an exhaustive manner, whose characteristics change in time based on the emerging needs of society. The analysis of the justice system was, in fact, generally not subject to enquiries on offices' productivity and to evaluation of the management of resources invested in the sector. The same centres of data elaboration and the related departments at the Ministry of Justice, for example, have not gone much further than collecting the statistical data and creating the generic indicators of service quality. Such parameters, though, are often revealed to be too bureaucratic and of little use in proposing ameliorative solutions of the service offered to citizens, who desire levels of protection that are more responsive to their expectations. In this sense, the application of the system of accountability within the judicial system can contribute to the managerialization of the service.

Keywords: judicial administration, business, accountability, Ministry of Justice, service

1. Introduction

An efficient and effective operation of the judicial system in which a request put forward by the citizens and an offer from the judicial institution represents one of the indispensable conditions for promoting and guaranteeing the proper operation of an economic and social system [1].

At first glance, the use of the criteria of efficiency, effectiveness and economy, which are typical economic business parameters in the study of the operations carried out by the courts, can be surprising.

The analysis of the justice system was, in fact, generally not subject to inquiries on offices productivity and to evaluations of the management of resources invested in the sector [2].

The same centres of data elaboration and the related departments at the Ministry of Justice, for example, have not gone much further than collecting the statistical data and creating the generic indicators of service quality. Such parameters, though, are often revealed to be too bureaucratic and of little use in proposing ameliorative solutions of the service offered to citizens, who desire levels of protection that are more responsive to their expectations.

Not infrequently one speaks of inefficiency in the justice sector as well as of the excessive delays in proceedings which are required to give replies to public and private interest derived from the acknowledgement of the interests recognized in court. Usually, however, the support of the considerations expressed is omitted with a suitable analytical technique to formulate corrective solutions. Instead, the attempt to apply criteria typical of the economic business analysis to the study of trials (civil and criminal) and to the organization of judicial offices could prove useful [3].

The observation of the offices and the concrete verification of the organization of the solutions adoptable for improving it would become, therefore, useful instruments with which to study reality, even if it is as complex as the courts.

Only if the reasons that determine a disadvantageous or a crisis situation are known can there be an intervention in some form to orient it, considering the judicial organization as a single productive unit that aims to maximize the beneficiary who could draw from the resources available (thus reaching the efficiency of the office itself or through a more parsimonious use of at least one input, for the same output, or through the increase of the amount of output, for the same input) [4].

In view of the progress achieved by other sectors in public administration, where the application of economic business criteria has registered considerable results in terms of the optimization of resources and good performance of the service (local health-care authorities, local authorities, universities, chambers of commerce, etc.), virtually as much concreteness is not found within the justice system. This environment, in fact, has always drawn out objective problems of conceptual order connected, first of all, to the difficulty of reaching a definition that is not contrary to the judicial function itself (or jurisdictional) and secondly to the particular nature of the principles and values involved. Repression of crime, sense of safety and legality, substantial equality for all citizens before the law, presumption of innocence until tried, reasonable length of trial, guarantee of defence for the defendant, judicial protection for victims, and separation of power are some of the values for which only effectiveness is looked at, instead of implementing them in an efficient manner [5].

This has produced, not infrequently, a result conversant with measures and provisions that are neither effective nor efficient.

The judiciary organization, as a whole, and singularly of all those who operate within it (clerks, public ministers and judges, civil or defence lawyers, witnesses or consultants, assessors and judicial officials, investigative police, etc.) uses considerable resources in carrying out the proper functions [6].

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It is often from the resource entities themselves who choose to assign one activity rather than another on which the outcome of the action plan depends; just as it is from the entity and the nature of the resources available that certain strategic choice can depend. Each strategic option, in fact, has a cost that is also represented by the alternative that is renounced in order to go with preferences, and even the choice between different procedural stances must be studied on the base of cost opportunity that each determines.

To this logic, one certainly cannot take away anyone involved in the judicial sector, but without a doubt nor does it take away the legislators, who must face budget constraints, problems connected with the managerialization of the service and with the costs and opportunities of each policy [7].

2. Public administration and corporatization

The definition of new functions, services and development strategies of which public administrations are recipients (*id est* judicial administrations) necessitates a reflection in regard to the process of corporatization of public administration [8].

The starting point of the important changes that have interested public administration in the last few years is made up of reform processes that can be defined 'as explicit modifications of the operating rules of the systems' [9]. A positive change of a determined situation is implicit in the achievement of these reforms. With reference to public administrations, the necessity to carry out these transformations emerges from various motivations, traceable to a gap that was progressively growing between what public administration should have done from an institutional point of view and what it actually did do, in view of an always greater quantity of resources absorbed.

In short, reform functions as a factor that produces, promotes or facilitates change, in that the system that is the subject of the reform manifests a motion of development that is inferior in respect to that necessary. The regulation consists of a fundamental passage to institutionally accredit innovation in planning and oversight functions and the introduction of new organizational and managerial instruments.

Public administration, besides Administrative Law, has for a number of years been considered a subject in Business Administration, a discipline that puts into practice a unified study with the theme of economic activity, independently from the nature of those involved in its practice, from its dimensional characteristics or from its legal background.

Even in public administration, in fact, all those requisites of Business Administration that qualify a business are recognized. These are autonomy, continuity, dynamism and coordination, reason for being and social legitimization to be constantly achieved in the interaction with the environment.

Autonomy of a business intends its ability of self-determination. This requirement allows business activities to be distinguished from all the economic activities conducted within an institution, but bound by a relationship of accessoriness. Speaking of autonomy, it is also necessary to recall its three main specifications. One speaks, in fact, of decision-making autonomy, which is the ability of self-legislation, of choosing conduct and behavioural guidelines; of asset autonomy, such as conditions of self-determination in economic choices in the administration of its own resources; finally, of economic autonomy, such as the power to control the flow of resources that characterize carrying out the activity of management [10].

It can be absolutely agreed upon that all three of the specifications indicated belong to the public context. To safeguard these forms of autonomy, the Law itself and the Constitution are in place.

The second aspect, continuity, manages to translate the necessary continuity of existence of the public authorities foreseen in different constitutional and administrative ordinances into economic—business terms. If on the one side there is a necessity for continuity for legal and political motives, on the other side, a balance that allows for the correct economic and financial survival of these authorities should be necessarily guaranteed.

It is, therefore, a continuity that is characterized by dynamism and subject to evolutionary phenomena and adaption (coordination) to the requests of the service users.

The reason of being and the social legitimization of the public authority, furthermore, are phenomena that do not lend themselves to particular objections, from the moment that they find their origins not only in the law but also in the social contract of a country [11].

So, if the public authority takes on all the characteristics typical of a business, it is a business itself, and, as such, can be studied in a homogeneous manner, prescinding from characteristics of form that distinguish the typologies.

Moreover, discussing public businesses only means putting together two terms of a diverse nature: the first is of a business origin, the second of a judicial origin.

Business [12] is a typical concept of Business Administration that answers the theoretical constructions and the relative operative indications, while public is the qualification that represents a particular mode of being of the business phenomenon.

This allows for the public authority (administration) to be put into a framework as a business equipped with specificities and, as such, characterized by communal rules independently of its dimensional, organizational or regulative characteristics.

Its process of administration and control becomes, therefore, identifiable with that of an activity with all the typical connotations of a business, with respect to the principles and laws of Business Administration.

All this brings about the recognition of two different operating dimensions within public administration:

- a political dimension, adopted in a determined moment and in a determined space by institutional bodies and by logic that controls the operation of economic governance, within which the interpretations of the aims of the authority are expressed and where the concept of the institution itself is explicated;

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- a business dimension through which the carrying out of the operations of production and consumption, as well as administration of the assets are assured.

For this reason, it is necessary to classify the various authorities of public administration based on the different relationships between the two dimensions and the different contributions that they variably will give in time to the achievement of the primary aims, analysing the so-called *level of corporativity* that it characterizes, in other words, the role that the objectives take on in an economic business nature in which they reside.

The presence of such different levels will depend on two factors:

- a political-institutional factor, that is, the choices that the Legislator has made on these types of authorities and the degree of financial and proprietary autonomy that each will recognize;
- a factor pertaining to the economic situation, that is, the economic-financial characteristics of a single entity and the needs that they set down [13].

Corporatization has the objective of bringing the essential and indispensable qualities of private companies into any public enterprise. Amongst them, these play a primary role: (1) the decision-making autonomy and the correlated taking on of responsibility for the decisions made, as well as for the results attained, (2) the effectiveness, efficiency and economy of management and (3) the professionalism of the managers and the workers and the formation of a corporate culture.

The terms effectiveness, efficiency and economy are keywords in the economic-business dictionary; it is not by chance that the search for such conditions is communal and indispensable objectives for all enterprises. A brief description would be that effectiveness identifies the capacity to reach set objectives, efficiency is that of reaching a given goal with the minimum waste (optimizing, namely, the use of resources and therefore improving the input-output relationship), economy identifies a situation of balanced and complete valorization of the economic, organizational and professional resources of a company.

Within the process of corporatization, the concept of effectiveness is tied to that of the quality of services. The public enterprise carries out its activities at an advantage over other enterprises of singles users or groups, to each of which it must assure the satisfaction of the needs expressed. Contemporarily, such enterprises must also commit themselves to the achievement of technical and economic efficiency, namely reaching their managerial goals by reducing the degree of the means used and, compatibly with its size, the level of costs.

While the considerations expressed above on the concepts of effectiveness and efficiency are valid for both private enterprises and public, there are some differences for economy. Indubitably, reaching a balance that has value over time is an indispensable objective for all enterprises on par with that of effectiveness; however, from the public characterization of the economic subject and with the aims of general socio-economic interest pursued, they carry constraints and requests that are different in respect to private enterprises which, in fact, can limit their profitability in a brief period.

Nevertheless, the actions of public enterprises must always be brought back to the principles of maximum efficiency, economic rationality and the achievement of the conditions necessary for economic self-sufficiency as well as global and total quality.

In summary, the public admiration-business system relationship develops through the re-establishment, or the introduction, of the managerial perspective, which in turn is based on (a) the search for consonance amongst the aims, the objectives and the constraints, in order to guarantee the unity of the management, (b) the adoption of a strategic perspective, which combines long-term needs with those derived from everyday management which then contributes to guaranteeing a lasting operation of the organization and (c) the orientation towards effectiveness, efficiency and economy (**Figure 1**).

For this reason, for more than two decades by now, institutional, regulative and managerial reforms are significantly modifying the face of public administration, pushing to be closer to citizens and for better quality of the services offered. This sometimes entails the redesign of institutional structuring and calls for innovative organizational models to respond to new demand.

Therefore, the path to reform undertaken by public administration has tried to outline a new 'public administration model' oriented towards understanding the principles of 'business management' [14].

In this context, the planning of the activity of direction and guidance of the entire system can be seen, or rather the activity through which the objectives of their own actions as a 'business' are identified and decided, activating adequate and correct decisions capable of reaching the set objectives in the execution phases.

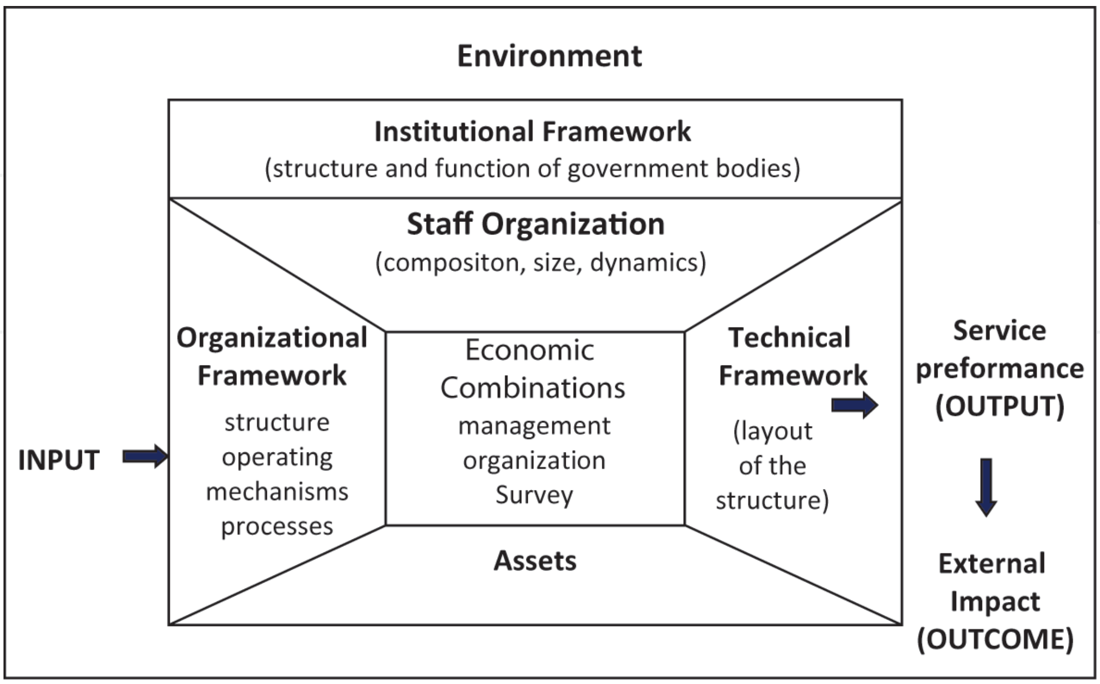

Figure 1. The dynamic system of public administrations. Source: personal elaboration.

http://dx.doi.org/10.5772/67555

Consequently, the activity of control consistent in the survey, analysis and valuation of the results obtained and of the connection between these and the set objectives or decisions of the enterprise bodies appears of undeniable relevance.

In this direction, legislation has done much, forming an unavoidable constraint which must be necessarily taken into consideration, essentially looking towards the aims indicated by the legislator without, though, creating a 'regulative guide' [15].

The business paradigm, even if it intervened late in offering its contribution to the study of public administrations, represents a third dimension, alongside political and institutional, that guides the behaviour of public businesses in the pursuit of their own institutional goals. The consensus and the legitimization on the part of the stakeholders cannot prescind from the ability of the public business [16] to operate according to the principles of economic rationality and, in particular, that of economy [17].

In this sense, the authority of the resources absorbed by the public sector, the extent of the tasks and the competences entrusted to them impose the daily confrontation, upon political, economic and administrative players, scholars and researchers, with a managerial approach, of problems connected to efficiency, effectiveness and economy of the administrative acts and of management that characterize the daily behaviour of even judicial administrations.

3. Judicial administration and managerial perspectives

A new paradigm has imposed itself onto judicial administration: obtaining and managing consent both externally, by obtaining the trust of the stakeholders, and internally, through values that can consolidate the various organizational levels.

In light of the considerations carried out, it is possible to identify certain criteria that in substance reconnects itself to the principles of business economy and that in their organic whole make up a system of 'values', which by integrating themselves into the operative plan and if knowingly made up of all the institutional participants (stakeholders) are capable of obtaining, in an economic-business and managerial sense, judicial administrative management.

Schematically, the previously mentioned system of values refers to the following concepts [18]:

- economy of management: as the judicial system is an economic 'institute' with the purpose of enduring in time, economy of management is placed at the apex, meaning that its operations must be based on criteria of 'economy' geared towards results. Here, as opposed to the enterprise that produces for the market, economy is not measured by profit, but rather by utility, which is reached by 'efficiently' producing goods and services which are capable of 'effectively' satisfying the needs of the citizen user. This means that in judicial administration, the quantification of results, which cannot be entrusted towards a sole indicator of profit, is reached for in other indicators that are different based on the type of production of goods or services, entrusting the budget specifications to a model that, in respect to the conditions of efficiency and effectiveness [19], can concretely inform the entire business activity, focalizing attention on reengineering and on simplification, with the objective of reducing waste, re-thinking and re-inventing the so-called Judicial Government, with the intent to increasing the effectiveness of the services.

- planning and oversight: these two elements make up an essential value in judicial administration, in that planning allows for, on the one side, the rationalization of the behaviour of the 'deciders' and, on the other side, the defining of the model capable of stabilizing the economic conditions that must guide the business activity. Oversight allows for the verification of the manner and measure that the economic conditions are realized in the effective carrying out of the business management.

- the information system: intended as an interrelated whole of elements, it attributes operational concreteness to planning and oversight, in that it allows the identification, through the handling of information, of the parameter of economy, offering a base, as objective and rationale as possible, to the management of the business. The managerial data acquire economic and juridical value, thus becoming information, only if they are properly organized and actually used in the decision-making processes in relation to their identification abilities.

It is a shift from the exclusive use of top-down-type logic promoted by the 'centre' through laws that reward and punishment systems could be associated, to bottom-up-type logic characterized by voluntary experimentation on part of single tribunals and by the subsequent diffusion in the public administration system of the emergent models. Consolidating, therefore, the action coordinated between the policies of support promoted on a central level and the promotion and diffusion from the bottom of innovative experiences and best practices, such as good-quality projects, innovation rewards and the systematic benchmarking of results and processes.

- the organizational culture: it interests above all the valorization of human resources, the personal qualification of the managers, the involvement of the staff, who must be made responsible for the expected results. The process of gradual re-orientation of the staff towards the business values, which in the general public are more difficult to learn, often reducing itself to mere formal acts, entails a symmetrical and equally gradual overcoming of the typical bureaucratic-administrative culture (government), characterized by exclusively juridical knowledge, oriented towards the oversight of the acts more than the results, fraught with formal responsibility in the direction of respecting the regulations as such without the due attention for the results that the same regulation aims to achieve (governance), without stimuli in the direction of change imposed by the constant reform of public administration.

- social control and the ethical dimension: the first value permeates judicial administration from the political-social point of view, as it is exercised by the people interested in the business itself, that is, the citizen users, or by who represents them, that is, the determined body (Ministry of Justice, magistrates). The ethical dimension, instead, re-enforces social control in the sense that the economic rationality and the ethical values in operating in the public administration are complementary aspects of a single 'system of values', adopted as a model of operation of the judicial administration, founded on values that are necessarily both ethical and economical [20].

http://dx.doi.org/10.5772/67555

The whole of these values outlines a virtuous cycle capable of distinguishing the actions of the judicial administration [21].

4. Judicial accountability and its application

Accountability in public administration proposes a report that is geared not only towards a higher-level public body, a monitoring body or, generically, to the administrative community, but also to all the principle categories of stakeholders, in the knowledge that all are interested in the business activity, or benefit from the results, and furthermore that all, with their active and reactive behaviour, have the ability to influence the activity itself, collaborating positively, or posing obstacles which would hinder the possibility of the business reaching their planned objectives [22].

The concept of accountability is considered as one of basic principles in the process of change and reform in public administrations that, even in an Italian context where it has not found a specific translation, it has been interpreted in its acceptance of attitudes of being accountable, of transparency and responsibility, distinguishing the aims and the external or internal focus to the business [23].

Despite the proliferation of definitions proposed on the concept of accountability, they seem to be accumulated:

1. from the greater complexity of the contextualized concept in the public sector in respect to its application in the private sphere;
2. from necessity, in order to speak about accountability, of the presence on one part (accountee) that must wait for another (accountor), responsible for accounting for how to respond to the same.

Specifically, the concept of accountability in judicial offices requires a transfer of information from the accountor (judicial office) to the accountee (citizen, political body, etc.) to whom the possibility of assessment of the public action based on the information obtained is recognized [24].

It can be stated that the aim is to create a 'relationship' between public administration and general stakeholders (stakeholder relationship), through a process of one-to-one communication (**Figure 2**).

In particular, in order to speak of judicial accountability, not only is the availability of information a necessity but they must also have the characteristics of reliability, comprehension, accessibility, diffusion and distribution.

Finally, the process of accountability must foresee the possible judgement expressed by the accountee that represents feedback on the part of who receives the information towards who sends it.

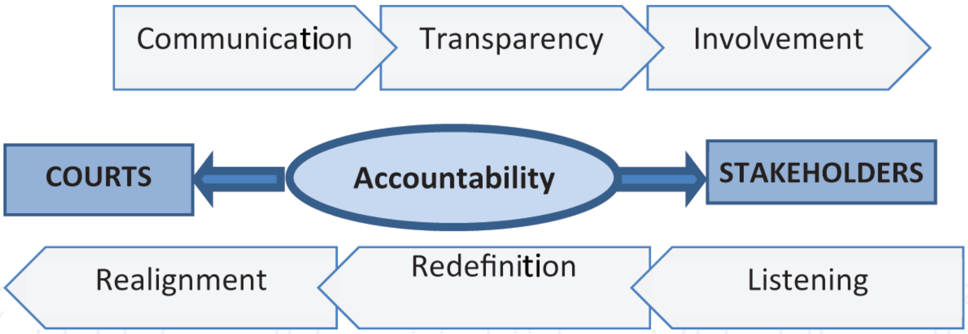

Figure 2. Relationship management with stakeholders. Source: personal elaboration.

In merit of the focus that addresses the process of accountability, a relevant distinction is highlighted among

a) an external orientation. In this case, the judicial offices should demonstrate that they are accountable, assuming responsibility for their actions and the results obtained, communicating them to the stakeholders, denoting transparency on the acquisition and the use of resources and on the performance achieved;

b) an internal orientation. In this hypothesis, accountability has a value as internal decision-making support entailing utility towards managers and magistrates. This would allow these figures to assume responsibility in a conscious manner, acquiring greater awareness about the objectives to be reached and regarding the necessity of accounting for the choices made and the results reached.

In order to better illustrate the different dimensions that can assume responsibility in judicial offices, it can be useful to consider a matrix analysis model composed of two principle dimensions of analysis (**Table 1**): (a) the recipient of accountability (internal or external) and (b) the type of results on which accountability is founded (financial-economical or meta-economical).

As it can be easily inferred from this model, accountability applied to judicial offices appears as a complex concept characterized by numerous aspects. In an environment with 'the need to account', in fact, a multitude of functions and tasks are included.

In other words, therefore, the manner with which judicial administration 'accounts' to the citizens can be varied.

As has happened for various types of public administration, even for judicial offices, the evident gap created in the years between user expectation and the services actually delivered has contributed to raise awareness of the nature of public service, which must be delivered with efficiency and economy.

The need for reform processes that are capable, on one hand, of developing a greater consistency between demand and supply of the services, and, on the other hand, of favouring the recovery of administrative action transparency and of the oversight on behalf of all the stakeholders is thus rendered evident.

http://dx.doi.org/10.5772/67555

	Financial-economic dimension	Social dimension
Internal accountability	**Function** Taking responsibility for the financial-economic results and the articulation of authority costs **Instruments** Oversight of management, ABC, remuneration tied to performance, etc.	**Function** Taking internal responsibility for the strategic objectives **Instruments** Balanced score card, MBO, etc.
External accountability	**Function** Accountability and representation of costs and income of a financial nature **Instruments** Financial accounting	**Function** Accountability and representation of effectiveness, social impact and mission consistency **Instruments** Social balance

Source: modified by F. Monteduro (Ed.) Amministrazione Pubbliche: principi e sistemi contabili. Aracne, Rome, 2006.

Table 1. The dimensions of judicial accountability.

In other words, an evident need for new governance mechanisms and accountability logic in judicial offices that are compatible with the independence of the magistrature was created.

Intended in terms of taking on responsibility, as well as reporting accounts, accountability represents, therefore, a necessity in the public sector in general, and in the judicial system in particular.

Anywhere resources are used in order to guarantee the attainment of a result, be it of public interest, or in the interest of a few, there is the need to take on responsibility for the results and accounting for them, to verity if, and in what way, the awaited results were met.

From the above-mentioned considerations emerge, therefore, the particular significance of the process of accountability in judicial offices.

If, in fact, transparency and reporting accounts through methods that go beyond those imposed by law are useful for enterprises and can produce important benefits for them (trust, image, shares, etc.), for judicial office it is a duty towards the recipients of the accountability process, in respect to the purpose of collective interest of this type of 'business' and the relationship of trust on which their actions are based, namely, as the need for reporting accounts and taking on responsibility not only for the efficient use of resources but also for the result obtained in terms of output and outcome.

5. Conclusion

The attempt of adopting a managerial logic in the judicial sector is certainly more complex because the service rendered by the courts is characterized by publicity and by specific needs and rules that make it more peculiar.

It is this character, however, that renders worthwhile each analytical attempt that aims to obtain a higher and higher level of satisfaction for the user.

Despite the evident need, the diffusion in the judicial offices (and therefore the same throughout the judicial system) of accountability logic and managerial orientation that could promote the recovery of higher levels of efficiency is often opposed by constant reminders of the necessity to guarantee the independence of magistrates. This independence is considered the most important ruling posed by the Constitution to guarantee individual freedom but, translating it into reality it is the principle element of a more complex immunization strategy put into place to oppose change.

Making the justice system more efficient with the knowledge that even justice is a stimulus factor for the economy and, moreover, can contribute to leading the country out of this crisis does not undermine the independence of the magistrate. On the contrary, the independence of the magistrate is reserved for exercising its function, but the magistrature must also understand that it is part of a complex organization, whose rules of efficiency must be toughened and made binding.

In the countries in which the managerialization process of the justice system is more evolved, substantial compatibility between independence and accountability has been established. Both, in fact, represent fundamental presuppositions of the public action of Judicial Administrations, in view of safeguarding collective interests.

Reducing the influx of judicial demand, increasing the adaptability of the judicial instruments and increasing the efficiency of the judicial organization: these are the three guidelines that can inspire a period of reform to address the emergency that involves justice in a manner that is no less worrisome than the economy.

In the knowledge that courthouses are not temples for novices, but a crossroads of social-economic development of a country, it can be concluded that even a judicial office can no longer avoid the responsibility that is typical in every public institution of reporting the results achieved by reconciling a business approach with the provisions, the regulations and the directives that daily regulate judicial activity.

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References

[1] Comite U. (2010a). The efficiency, effectiveness and economy of the Italian Judicial System: The economic-business perspective. In 2010 International Conference on Public

Administration (6^ ICPA), "Public Administration Challenges and Opportunities: Serving Citizens in a Globalized World", Canberra, Australia, 22-24 September 2010 (Vol. I, pp. 337-348, ISBN 978-7-5647-0624-1).

[2] Kostoris R. (2003). Giustizia, garanzie ed efficienza: delicati equilibri e suggestioni. Diritto & Giustizia no. 25. Milan: Giuffrè.

[3] Comite U. (2010b). Management and social balance in the Italian courts: Methods and operative proposals. In 2010 Oxford Business and Economics Conference (OBEC) Proceedings, St. Hugh's College- Oxford University, England, 28-30 June 2010 (ISBN 978-0-9742114-1-9).

[4] Alvino F., Lepore L. (2009). Court management: inquadramento dottrinale e strumenti operativi. Rome: Quaderni Monografici RIREA.

[5] Comite U. (2010c). The entrance of court management in the courts through the use of social balance: The Italian experience. In Global Conference on Business and Finance, online, 1931-0285 on CD, The Institute for Business and Finance Research, Hilo, HI, 3-6 January 2010, Keauhou Beach Resort, Kailua-Kona, Hawaii (Vol. 5, no. 1, ISSN 1941-9589).

[6] Caperchione E., Pezzani F. (Ed.). (2000). Responsabilità e trasparenza nella gestione dell'ente locale. Milan: Egea.

[7] Elder H. W. (1989). Trial and settlements in the criminal courts: An empirical analysis of dispositions and sentencing. The Journal of Legal Studies, Vol. XVIII, pp. 191-208, Chicago University Press.

[8] Anselmi L. (1995). Il processo di trasformazione della pubblica amministrazione. Turin: Giappichelli.

[9] Borgonovi E. (2005). Principi e sistemi aziendali per le amministrazioni pubbliche. Milan: Egea.

[10] Cavazzoni G. (2004). Il sistema del controllo di gestione. Strumenti per le decisioni operative aziendali. Turin: Giappichelli.

[11] Anselmi L. (Ed.). (2005). Principi e metodologie economico-aziendali per gli enti locali. Milan: Giuffrè.

[12] Hinna L. (Ed.). (2008). Appunti di Economia Aziendale. Padua: Cedam.

[13] Comite U. (2009). Business economy profiles of financial difficulties in local corporation: From default to financial renewal. Journal of International Finance and Economic (JIFE), Vol. 9, number 1, pp. 66-76.

[14] D'Alessio L. et al. (2008). Gruppo di studio e attenzione dell'Accademia Italiana di Economia Aziendale. In Innovazione e Accountability nella Amministrazione pubblica. I drivers del cambiamento. Rome.

[15] Alford J. (1993). Towards a new public management model: Beyond managerialism and its critics. American Journal of Public Administration, Vol. 52, Issue 2. pp. 135-148

[16] Farneti G. (2004). Ragioneria Pubblica. Il nuovo sistema informativo delle aziende pubbliche. Milan: F. Angeli.

[17] Borgonovi E., Fattore G., Longo G. (2009). Management delle istituzioni pubbliche. Milan: Egea.

[18] Persiani N. (2002). Modelli di programmazione e sistemi di controllo interno nella pubblica amministrazione. Milan: F. Angeli.

[19] Sforza V. (2005). L'economia delle aziende sanitarie pubbliche. Logiche di gestione e strumenti di analisi dei risultati aziendali. Padua: Cedam.

[20] Comite U. (2009). Creazione di valore e sussidiarietà nell'amministrazione pubblica: un approccio economico-aziendale. In G.P. Calabrò (Ed.). La nozione di sussidiarietà tra teoria e prassi. Naples: Edizioni Scientifiche Italiane.

[21] Moore M. H. (2003). La creazione di valore pubblico. La gestione strategica nella pubblica amministrazione. Milan: Guerini e associati.

[22] Bertocchi M., Bisio L. (2005). Bilancio sociale: dalla rendicontazione al dialogo. "Il Sole 24 Ore", Guida agli Enti Locali no. 43. Milan.

[23] De Matteis F. (2011). Il bilancio per il cittadino negli enti locali. Padua: Cedam.

[24] Steccolini I. (2004). Accountability a sistemi informativi negli enti locali. Turin: Giappichelli.