



## Domestic Model of Accounting Development Based on the Contingency Theory

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### ABSTRACT

Dealing with the issue of Accounting Development necessitates an internal and external look at the profession, which is able to examine “accounting” from different dimensions. Accounting Development can be evaluated in various forms. One of such forms of evaluation is the use of the Contingency Theory that says there is no single, universal or ideal form for the system of accounting information; in other words, specific conditions and situations will dictate the best-fit system choice in those conditions and situations. Thus, this study aimed at suggesting a domestic model of Accounting Development based on the Contingency Theory. Here, the mixed qualitative-quantitative method was used to suggest the research model. In the qualitative part, questions were given to the experts of the study to answer via the snowball sampling. In the quantitative part, the structural equations approach as well as the confirmatory factor analysis was used. In the first phase, 51 concepts within the framework of 5 categories were extracted from the interview with experts. In the second phase, the concepts and the categories were decreased to 41 and 5 respectively. The categories included political, economic, organizational, environmental and professional factors. The results from the factor interrelationships as well as their impact on Accounting Development indicated that among different factors, the environmental factor with coefficient of 0.302 exerted the highest impact. As is emphasized in the Contingency Theory, environmental factors are considered among the most important factors that affect Accounting Development in all countries.

### Keywords:

Domestic Model, Accounting Development, Contingency Theory.

## 1. Introduction

Addressing the issue of accounting development requires an internal and external view of the profession that examines accounting from different dimensions. Accounting development means quantitative and qualitative development which includes the development of methods and procedures, theoretical principles and concepts, standards, professional conduct, financial reporting frameworks, professional accounting and auditing institutions, alumni, employees, education systems and social status. The accounting literature confirms that by the change of business environment, the need and demand for change in the financial information provided by the accounting system leads to the development of accounting. In this regard, Belkaoui & Muskie argue that the search for a relationship between accounting indicators and indicators of economic and social development requires the provision of a contingency theory for international accounting (Belkaoui & Muskie, 2014).

According to Belkaoui (1983), accounting is not a mere discipline, but rather indicates a special developing environment. Due to the specific characteristics of each country, development of accounting systems and reporting and disclosure procedures is different from one country to another. He also classifies the factors affecting the development of accounting into the variables of political environment, economic and geographical environment (Aqdam Mazraeh et al., 2017). Thus, modeling accounting development is a very dynamic and multidimensional process that greatly affects the economic environment (Rodica et al., 2017). This indicates that time and economic and social situation variables of each country (contingent factors) are highly important factors that should be constantly considered in the study of accounting development of each country. Different perceptions of these factors and responsibilities from society are accepted by an economic enterprise which indeed affects the issue of disclosure in the accounting information system and also the reporting items (Khajavi and Etemad Jouriabi, 2017). In other words, the accounting information system in the new century deals with issues such as combating corruption, promoting transparency and accountability, environmental protection, economic development, etc. (Bagherpour Valashani et al., 2016), that the flexibility of the information system,

standardization of accounting methods, attention to the category of education, participation of users of this information system and having specialized knowledge of accounting and auditing affect it and causes the growth and promotion of the real position of this profession in society (Mohammadian, 2013). Therefore, it should be examined that how accounting works in times of economic downturn and prosperity, capital market development or underdevelopment, tax environment, the quality of the audit profession and the training environment and other factors governing the profession. According to Muiz & Branson (2011), the development of accounting can be evaluated in several ways. These important points include 1) Adequacy of accounting standards, 2) Presence and importance of professional organizations 3) competence of accountants, 4) Legal and regulatory support 5) Quality of financial statement disclosure. Differences in the financial reporting framework of countries are due to several factors, including the size and strength of the accounting profession. This means that professional national accounting and auditing organizations should be actively involved in the development of accounting and auditing performance. Hence, the role of auditing organizations and firms which are considered as members of the Society of Certified Public Accountants seems to be very prominent in this regard (Venter et al., 2018).

Given the above discussed issues, accounting environment is a challenge needed intensively by this profession. In fact, this study seeks to explain and present a coherent and significant accounting development model with respect to contingent variables in Iran. This requires the issue of accounting development to be addressed contingently, the environmental and environmental factors governing the profession be taken into account in proportion to a specific time period so that the research goal (contingency model design) is achieved.

## 2. Literature Review

### 2.1. Accounting development

Since discussions of the accounting profession generally have economic nature and are less involved in political and ideological issues (John Richard, 2015) accounting studies for the past 25 years have focused significantly on a range of historiographies, which is the subject of an important discussion. This is

a testament of the accounting influence and a way to prove its influence on different social groups, which shows that accounting changes are not easily achieved and its conflicts internally and with its external environment have been proven which ultimately has given rise to the improvement of this field. Accounting is a service-social activity. Therefore, society and user groups gradually expect newer services from accountants as business diversifies and public awareness of their need's increases. In line with this demand, accounting is required to be developed in various areas including improving standards and regulations, reporting and disclosure, measurement methods, increasing the expertise of accountants, improving the professional conduct of accountants in society and the development of accounting in new areas. Belkaoui (1983) states the application of the theory of justice in accounting (equal distribution of all economic goods and services) indicates the choice of an accounting system that ultimately offers impartial, desirable and socially fair solutions. This theory confirms the expansion of the role of accounting, which in turn creates justice-based institutions. Therefore, a distinctive feature of the accounting profession is to accept responsibility to the general public. The society expect a lot from this profession and understanding the quality of complex services provided by the accounting profession by the people is facilitated when professional accountants provide their services at a level that deserves society trust. Hence the accounting profession services should be at the highest possible level and provided with criteria that ensures the continuity of these services with proper quality. Kate Dixon and Mikhail Gafikin (2013) state that accounting develops in the light of improving people's lives and personal relationships. In the article "Historical Review of Accounting, Business, Auditing, and Financing," Richard Makouh (2014) states that there is a deep and historical link between business and accounting, so that the two have harmoniously been developed.

## **2.2. Contingent theory**

Many different theories regarding the ways to organizations should be run have been presented. The basic theories proposed regarding organization have been accepted as a universal approach to determining the best way to perform specific tasks, regardless of the circumstances surrounding it (Watson, 1975).

Traditional management theories such as scientific management, administrative and bureaucratic theory consider only one method for the structure of an organization which indicates that there is no significant relationship between the structure of an organization and environmental variables; So there is only one desirable way left in which things should be organized, which is highly important for all organizations in different situations (Watson, 1975). Apart from any other influence, organizations described as closed systems encompass environmental variables forces. These theories address primarily two issues; one is related to the formal discretions of management, while the other relates to formal working roles throughout the organization.

Therefore, both administrative and scientific management theory are perfect theories, both of which are intended to choose the best structure to achieve the highest level of effectiveness of an organization. More recently, these theories have shifted to contingency theory, seeking to offer specific theories for different situations (Emmanuel et al., 1990). As a result, traditional theories are not sufficient for a variety of situations, and contingency theory has become a promising alternative (Kreitner, 1998); Thus, moving from a global management approach to a contingency approach was a new step, which was required by conditions and indicated that different aspects of an organization depend on the conditions of the organization as a whole (Daft, 1992).

Contingency guidelines emerged in the mid-1960s as an important perspective on organizational theory. This instruction was developed in the organization theory literature as a response to rapid and increasing changes in the environment through the empirical research of individuals such as Booms-Stocker (1961) and Woodward (1965) and Lawrence and Lorsch (1967). A set of environmental factors were used by Burns and Waterhouse (1975) in their studies to express the differences in management accounting among companies. It has been stated that an efficient organizational structure depends on the environment of the organization (Waterhouse and Thyssen, 1978), while the efficiency of the organization depends on organizational characteristics. Contingency theory opposes the global approach by considering organizational structure as a dependent variable that is influenced by independent variables. Booms and Stalker (1961) and Lawrence and Lorsch (1967) found

that there is a relationship between the external environment and organizational structure, while others, such as Woodward (1965) and Peru (1967), insist on the impact of technology as a determining factor of organizational structure. Poof et al. (1969) emphasize the size of the organization as an effective factor in making the organization more inclusive.

In their study, Venter et al. (2018) examined the relationship between economic development and the accounting profession. The results of their research showed that there is a strong relationship between the accounting profession and economic development. Building Capacity for professional and specialized accounting organizations also helps emerging and developing economies significantly. In their study, Bulaki et al. (2018) examined the development of accounting methods and procedures in Egypt, Jordan, Libya and the UAE. The results showed that the activities of professional organizations, accounting laws, government representatives, Arabic culture and social values affect the framework of accounting methods and procedures. Also, in comparison to the United States, the United Kingdom, Germany and Italy, the three countries of Egypt, Jordan and the UAE are at the level of their main trading partners that can offer them business environments, financing methods and a level of accounting procedures. In their study, Gernon and Wallace (2013) examined “international accounting research, a perspective on the accounting environment”. They divide the environment into 5 sections including social, organizational, professional, stakeholder and accounting section. Aqdam Mazrae (1396) in his study examined the relationship between democracy and the development of accounting. The results show that there is a significant relationship between the indicators of democracy and the development of accounting and their loading factors on the development of accounting include membership in organizations and parties, selection of accountable and effective representatives, freedom of speech, governance of law, freedom of vote, freedom of parties, competition for positions and personal freedoms, respectively. In general, the findings of this study show that indicators of democracy have a major impact on the development of accounting. In his research, Rahnamai Rood Poshti (2014) studied the schools and theories of finance and accounting, including theories, models and techniques. According

to him, management accounting as a science has evolved with the entry of enterprises into the modern era and the emergence of management accounting techniques is due to the activities of enterprises in the modern environment. Mohammadian (2013) in his study examined the development of accounting knowledge as a scientific discipline in the university. According to him, although accounting is still in its infancy, and has large distances with other sciences and academic disciplines, especially natural sciences, but due to its astonishing growth in education and profession, it can be placed in the realm of social sciences and it can be mentioned as a descriptive-analytical and academic field. Tavakoli and Mohammadi (2010) in their study examined the environmental factors affecting the development of accounting in Iran. They proposed a contingency model to study the environmental factors affecting the development of accounting in a country. In this study, according to the ratings obtained from Friedman test, four environmental factors were used to explain the differences observed in the development of accounting over time. These factors include economic, political and capital market development and the amount of private sector investment. Findings obtained from time series regression and statistical tests indicate that there is a strong relationship between environmental factors and the development of accounting in Iran and these relationships have been diverse and different in the study period. Experimental findings show that economic development is positively related to accounting development in Iran.

In their study, Mashayekhi and Noravesh (2009) examined the “educational needs and priorities of accounting, perceptual distance between academics and employees in the accounting profession”. The results indicate that there is a gap between the views of the two groups on advanced accounting concepts and methods, as well as some required skills and characteristics. In their study, Bahramfar et al. (2008) identified barriers to the development of management accounting in manufacturing companies listed on the Tehran Stock Exchange. Four factors and obstacles to the development of accounting were identified, which include: 1) low familiarity of managers with accounting concepts and methods 2) inadequacy of training of this domain in universities and other educational institutions to train managers 3) Lack of timely information by Accounting system and 4)

continuous changes in economic procedures. Also, the results of the questionnaire findings showed that accounting development is not a successful process in Iran.

### **3. Methodology**

The method of this research is a mixed (qualitative-quantitative) research method. This research is an applied research in terms of purpose. First, the accounting development model based on the contingency approach is designed through data analysis of the design foundation and then with the structural equation approach, the effect of effective factors on accounting development is evaluated. The semi-structured interview approach was used to design the model. Then, a 5-point Likert scale questionnaire was used to test the model. Cronbach's alpha was used to assess the reliability of the questionnaire and confirmatory factor analysis was used to assess the validity. MAXQDA software was used in and Smart PLS software was used in qualitative and quantitative analysis, respectively. The participants in the qualitative section included faculty members and professors of the country's universities, PhD students, partners and auditing managers, financial managers, accountants and auditors working in the public and private sectors, who are aware of the research topic. The total number of experts participating in the study was 28. The quantitative part of the statistical population consisted of faculty members and experts in the accounting and auditing profession, and simple random sampling was performed. Based on Morgan table and proportional to the size of the population, 215 people were estimated as the sample size. From the total number of samples, 138 people participated in the study and completed the questionnaires.

### **4. Findings**

In order to analyze the data obtained from the interviews, a three-step process of open, axial and selective coding was used. The process begins with the researcher reviewing and reading the interview data and encoding similar data that have the same semantic load under common codes and then assigning appropriate concepts to each. During this stage, called open coding, various categories related to the research topic are extracted. Each of the categories is based on different concepts and the researcher tries to design

characteristics and dimensions of each in order to better understand and identify the fluctuations of that concept. Once the categories are formed, the researcher selects the categories whose traces are visible in different parts of the data. These categories, called pivotal categories, are extracted under data-driven coding, and the source and root of all topics related to the research topic can be found in them. In the next step, the researcher tries to find out how each of the categories relates to each other. In this step, the relationship between the categories is described visually. According to experts, the main components of the research are in the form of Table 1. The final concepts of the research include 41.

During axial coding, the extracted concepts in the open coding section were divided into several categories. A description of these concepts and categories is provided in Table 2. Based on the results of this table, 5 categories were introduced

Finally, an attempt was made to present a theoretical narrative of the phenomenon in the selective coding by putting the categories together and to establish a systematic connection between the concepts and the categories. Therefore, Figure 1 shows the effective factors of accounting development in the form of a flowchart.

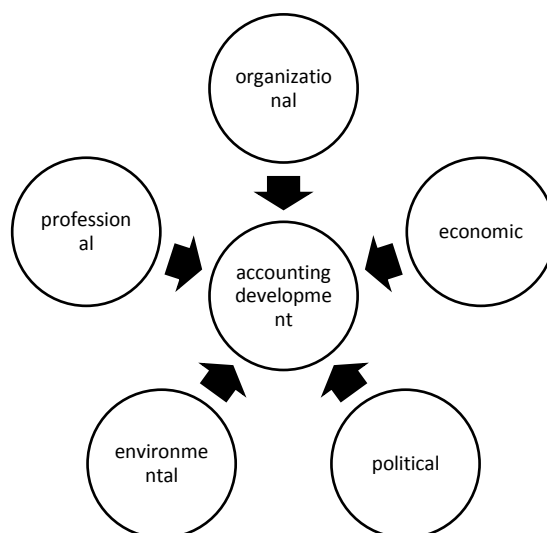
In order to determine the effect of identified categories on the development of accounting, structural equations are used. In order to evaluate the validity and significance of the concepts, the factor loading and in order to evaluate the effect of the categories on the development of accounting, path analysis has been used, respectively. AVE index was used to measure the validity of variables and Cronbach's alpha was used to measure their reliability.

**Table 1: The Final extracted concepts**

Row	Code	Row	Code	Row	Code	Row	Code
1	Political rights	12	Customs tariff rate	23	Financial sources	34	Proper and reasonable pricing allocation
2	Political freedom	13	Currency rate	24	Modern environment	35	Providers and stakeholders of accounting information
3	Political system	14	Economic development	25	External environment	36	Timely provision of information by accounting systems
4	Sustainable development	15	Organization size	26	Concentration	37	Accrual method as the only framework for preparing financial statements
5	Business growth	16	Organization structure	27	Specialization	38	legal power for the profession
6	Private sector investment	17	Organizational culture	28	Competition rate	39	Influence
7	improving production method	18	Management style	29	Environmental uncertainty	40	Strengthening the ethical principles and codes of professional Conduct
8	Economic growth	19	Corporate governance	30	Business environment	41	Improving the quality of information disclosure
9	Interest rate	20	Organization strategy	31	different theories and views		
10	government expenses	21	Strategic mission	32	Applying the concepts of justice, equality, fairness, transparency in accounting		
11	Tax rate	22	Technology	33	Accounting and bookkeeping techniques		

**Table 2: Categories of concepts**

Concepts	Category
Numbers 1 to 3 (table 1)	Political factor
Numbers 4 to 14 (table 1)	Economic factor
Numbers 15 to 21 (table 1)	Organizational factor
Numbers 22 to 30 (table 1)	Environmental factor
Numbers 31 to 41 (table 1)	Professional factor



**Figure1: Native model of accounting development (Source: Research Findings)**

Table3: The result of reliability Test

AVE	CR	Cronbach's alpha	Variable
0/453	0/706	0/695	Accounting development
0/438	0/876	0/871	Economic factor
0/461	0/885	0/881	Professional factor
0/465	0/810	0/794	Organizational factor
0/562	0/616	0/607	Political factor
0/404	0/823	0/812	Environmental factor

Investigations show that Cronbach's alpha is higher than 0.6 and AVE index is higher than 0.4, which confirms the validity and reliability of the variables according to Frenl and Larker (1981).

The results indicate that the concept of organizational culture has a factor loading of less than 0.5 and therefore this concept is removed from the model.

The results show that the value of t-statistic for all concepts is more than 1.96, which indicates their significance. The results of the study regarding the effect of categories on the development of accounting show that the value of t-statistics for economic and political factors is less than 1.96, which indicates that the relationships are not significant at the 95% confidence level.

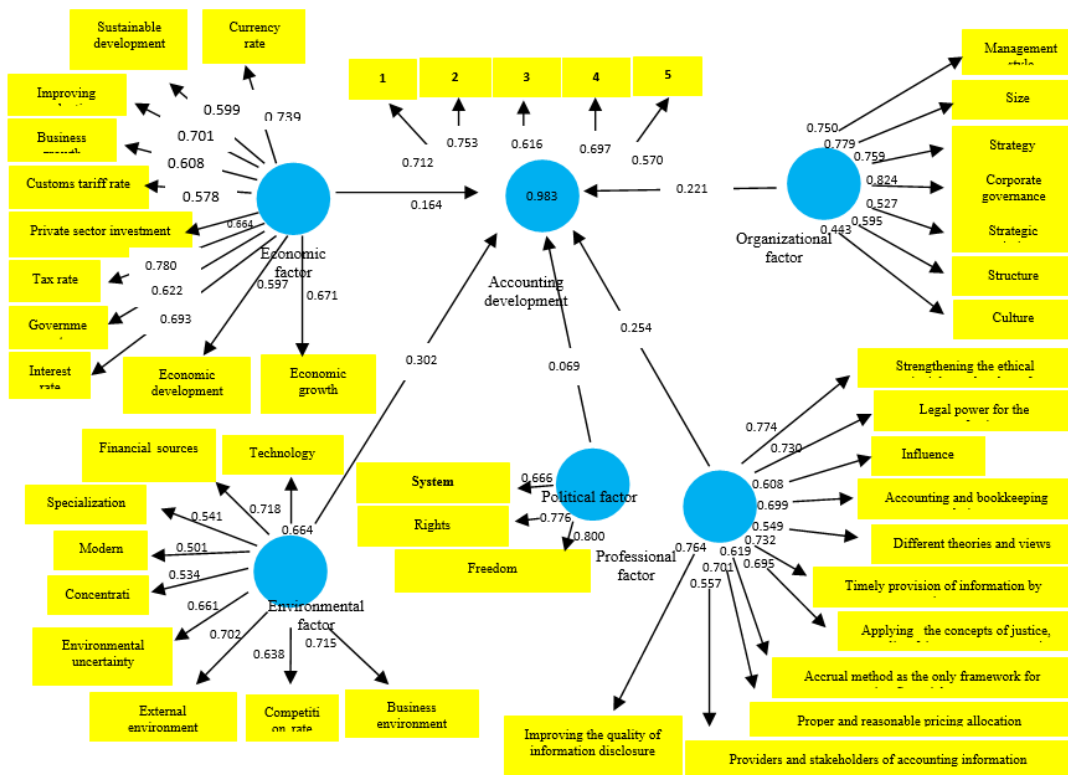


Figure 2: Factor loading values and path coefficients

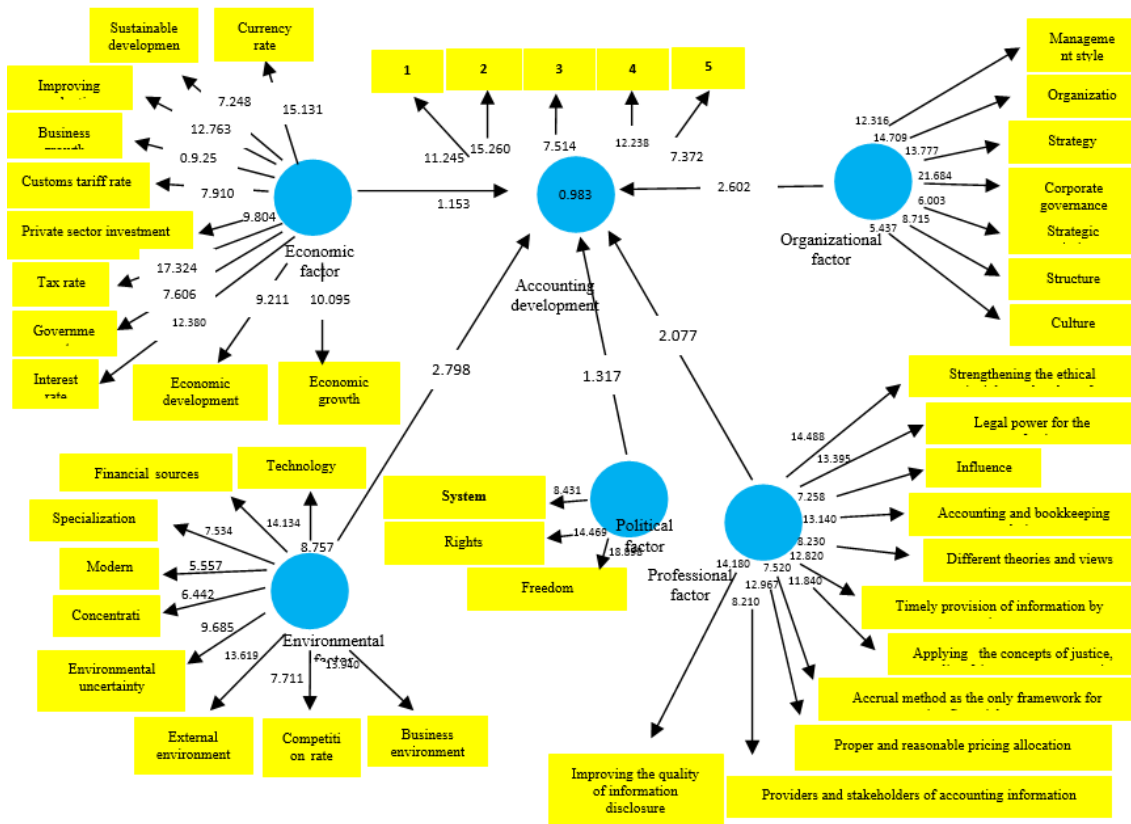


Figure 3: Statistical t-values

Table 4: Summaries the results of path analysis

Result	Significance level	t-value	Standard deviation	Sample median	Sample size	variable
Rejected	0/250	1/153	0/142	0/195	0/164	Accounting development → economic factor
Accepted	0/038	2/077	0/122	0/264	0/254	Accounting development → professional factor
Accepted	0/010	2/602	0/085	0/213	0/221	Accounting development → organizational factor
Rejected	0/188	1/317	0/053	0/060	0/069	Accounting development → political factor
Accepted	0/005	2/789	0/108	0/278	0/302	Accounting development → environmental factor

### 5. Discussions & Conclusions

The purpose of this study is to provide a native model of accounting development based on contingency theory. In order to achieve the objectives of the research, a combination of quantitative and qualitative methods has been used. In the qualitative section, using the snowball method and referring to experts, they were asked about the objectives of the study. According to experts in the first phase of the research,

51 concepts were identified within the framework of 5 categories. Following collecting and arranging the concepts in the first stage, the concepts were referred to the experts in the second stage and were asked about the concepts of the first stage. Finally, the number of components that were confirmed in the final research model includes 41 components within the framework of 5 categories. Therefore, the final research model includes 41 components in the framework of 5 categories; Economic, political, environmental,



organizational and professional factors. The results of this study show that among the main factors of this research, environmental factor has the greatest effect on the development of accounting. As it is emphasized in contingency theory, environmental factors are one of the most important factors influencing the development of accounting in any country. Therefore, for each country, its specific environmental conditions must be considered and analyzed. The importance of contingency theory for accounting system analysis has been the subject of numerous studies over the past three decades. External research by Chen Hall (2016) and Gernon and Wallace (2013) also emphasize this issue. According to Chen Hall, the study of contingency theory from a functional perspective of an appropriate management system depends on the external environment, and according to Gernon and Wallace, "examining international accounting research", there is a perspective of accounting environment between environmental factors and development of accounting. The results of research also show that the professional factor, following the environmental factor has the greatest impact on the development of accounting. Islama and Kalibi (2017) and Gernon and Wallace (2013) support this. According to the research of Bulaki et al. "a review of accounting development in Tunisia's changing environment" shows that "International Financial Reporting Standards (IFRS) has led to the development of the accounting profession and training in Tunisia." The research of Gernon and Wallace (2013) also indicates the existence of a relationship between the professional factors, stakeholders in accounting and accounting development. According to the results of the research, it is suggested that the following measures be taken:

- Strengthening the atmosphere of modernity - modern environment in Iran.
  - More effort in setting the organizational strategy plan and implementing new management systems to strengthen management accounting systems.
  - Providing sufficient financial resources for applying and updating accounting techniques, especially management accounting.
  - Formulating standards or government regulations to enhance financial reporting transparency.
- Specialization of accounting, financial and commercial legislation in government systems.
  - Require government law to provide maximum information to accounting information stakeholders.
  - Strengthen the foundations of corporate governance in government regulation and formulating accounting standards.
  - Formulating a sustainable development plan and accomplishing economic growth.
  - Changing organizational structure from hierarchical (vertical) to procedural (horizontal).
  - Assigning government activities and preventing the expansion of government ownership to develop the private sector and strengthening investment in this sector.
  - Using the experiences of successful countries in the field of controlling interest rates, exchange rates and tax rates in the set of economic factors affecting the development of accounting in Iran.
  - Development of political system, expansion of freedoms and political rights in Iran

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