Prioritize activists in Iran information accounting system based on the actor's network theory (ANT)

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Abstract. Nowadays it is safe to say that every management decision has the financial implications in the following and due to this the management needs financial information to take any decision. The task of preparing this information and processing them on financial issues is due to the informational accounting systems.

The issue that why managers accept a series of accounting information and use them, or on the contrary, don't accept it and don't use it, is the most important information issues of managers. On the other hand a large group of users of accounting information rely on the information that is provided by the managers in the form of financial statements and explanatory notes. In many cases, the purpose of financial information providers is not the same as their users and these issue origins from conflicts of interest among stakeholders in the company. Therefore, to reduce the conflict of interest groups benefit, users of accounting information, they need the services of competent and independent experts for the accreditation of the accounting information and identifying the way of communication between systems components so that they will believe the above information. In this study, the effect of the 5 main instrument to form a network of activists is including the organization's rules and regulations, financial resources, human resources and technology as a main means of influencing on the accounting information and identifying the way of communication between systems components so that they will believe the above information. In this study, the effect of the 5 main instrument to form a network of activists is including the organization's rules and regulations, financial resources, human resources and technology as a main means of influencing on the accounting information and identifying the way of communication between systems components so that they will believe the above information. In this study, the effect of the 5 main instrument to form a network of activists is including the organization's rules and regulations, financial resources, human resources and technology as a main means of influencing on the accounting information and identifying the way of communication between systems components so that they will believe the above information.

Keywords: Actor network theory, informational accounting systems, actor, Kolmogorof Smirnov test

1. INTRODUCTION

Integrated and coordinated system of accounting information is the desired general pattern of standards and principles and assumptions profession. Without this unity and interagency coordination between systems, efficiency and effectiveness of the measures and resources which spent to manage accounting information system and its development is strongly questioned and gradation. In this context, the spatial and functional integrity of accounting information system is vital in directing and controlling all aspects of the principles.

The purpose of accounting information systems is to ensure that the system components to be managed in a way that can deliver optimal performance in order to provide economic decisions of users. This word merely is no longer means systems to control the system, but also is a set of communication behavior. A process which through that the activities of numerous actors are interacts with each other and with the information system. As management knowledge should be implemented around five main task managements means planning, organizing, human resources, leadership and control of organized, this accounting information system.(Ahrens, T. and Chapman, CS 2004). Systematic approach is an accepted technique to management and enables managers to understand the...

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critical variables and constraints and their interaction with each other at every level of the system, the organization, and unit managers. This approach enables managers to always know that any element of a phenomenon or problem should not be a separate unit without considering the consequences of their interactions with other components which is discussed. With the adoption of a systematic approach, all five task management can be integrated into various system levels, while they linked an accounting information system with its environment and the whole organization as a whole to achieve the mission and goals (Hajiha, Zohreh. Poorazizi, Zulfaqh. 2011) managers duty of accounting information system is Conversing external inputs (money, people, skills) into outputs (interest, satisfaction, integration of the objectives of different stakeholders in the organization) in an effective and efficient manner. Since the operation information system includes a number of connected elements in each level, accounting information systems approach is applicable to coordinate efforts at every level. As a result of individual and organizational goals find meaning to achieve social in order to improve the social service system and utilization their stakeholders (. Power, M. 1996a). Currently near of the accountants and managers who play an important role in the management of each accounting information systems within the organization, different users also are major factor in the preparation of basic accounting standards and financial statements in order to meet the diverse needs of them. So it seems in order to avoid duplication, doing parallel tasks and sometimes the loss of public funds, long and wide formation of the Court, Creating friction and lack of coordination and lack of responsibility in accounting information systems that eventually will lead to loss of users and institutions, creating of effective and targeted information system is essential (Nykomaram, Hashem. Mahmoudi, Mohammad. 2011)

For this purpose, identifying the factors which affecting the accounting information system and prioritize the role and impact of each factor has an important role in the development and promotion of information systems such as the accounting information system. So the aim of this study was to identify activists of accounting information system in Iran based on network theory actors (ANT) and prioritize them in audit firms.

2. THE ACTORS NETWORK THEORY (ANT) AND ITS PROCESS

The actors of network theory unlike other older actors of network theory, the theory of publishing innovation, such as the theory of Rogers Publishing, which shows the discovery of the hidden facts which was available from past and typically the innovators or individual hero's explorer, based on the construction of the (black box technology and innovation) is relevant. In traditional theory, when the truth is revealed, it mysteriously published in the society and intact and unchanged, by force of course is push forward.

The main focus of activist's network when used in specific fields, is trying to explain the process in which a relatively stable network of alliances established and may continue or seeks to explain why such networks are to continue to do. Successful network, consisting of stakeholders and by membership of the body of adequate allies / benefit and interpret their interests are formed, so that the actors are willing to participate in a particular way of thinking and action that pursues the goal of sustainable networks (Alcuffe, S, 2008).

Actor network theory, see the construction of reality as a black box looks. This black box is created when the interests of human and non-human actors are formed in setting single set and the reliability of the network. Thus, these beliefs are constant over time and space transported with a wide network of human and otherwise. By this the published information does not depend on one's own belief and
in other words, the consequence of the decision is not a single actor, but also it is depends to the decision of other actors in time and space and thus determine the ultimate reality of each claim.

Researchers actor network theory, the process of the formation of a network of activists known as the interpretation includes four steps (1) the issue foundation, 2-member issue, 3- Membership Vulnerability and 4-equip and mobilize members (Mohammadi asl, Abbas .2008) Furthermore interpretation, the role of the (impact) related leads to the closure of ideas about technology. These technologies will be published in a particular area, in this particular field the connection linked and can help to ensure the stability of the socio-technical communicators. Latour role as Mark describes the process of creating technical artifacts that human interests hide in it. Roles include posts such as journal articles, promotional literature seminars, pre-projects and inventions, images, databases and so on are minimal knowledge of focus (Mohseni, M. 0.1993). Scriber believes that actors who can provide information and IT managers in making decisions about innovation actors involved are divided to the social, economic and the public. Family, neighbors and other community connected with the directors, is part of the social activists. Actors who involved in economic transactions with managers, market factors, consumer product processing and other economic actors are taken into account. Public institutions such as research institutes, promote and market can be considered as a public actors (Nazemosadat, Mohamad jafar et al., 2005). Knowledge networks, including patterns of communication and interaction between the actors more or less stable and social order, exchange information with each other to pay as a result of efforts to establish the relationship between the actors is obtained. In network knowledge of people with diverse traits exchange deal, therefore, so the knowledge networks specify that the community knows who or what. Social network are focused on people and their place in the relations between them at the specified time. (Alcouffe, S, 2008 ).

3. RESEARCH METHODOLOGY

In this study is identifying actors affecting accounting information system in Iran, according to activist's network theory (ANT) and prioritize them in audit firms, human and non-human actors to determine the precise effects of accounting information systems, analyzing the relationship between human actors. This hypothesis has a main theory and five particular theories and in the first to investigate the role of human actors as one of the main factors affecting the accounting information system, demographic characteristics of human factors, including 120 auditors auditing companies in Iran were used in the form of descriptive statistics. Then based on the Kolmogorof-Smirnol test and Friedman study was to examine the assumptions.

4. RESEARCH HYPOTHESES

The main hypothesis of this study has one main hypothesis and five particular hypothesis as follows: The main hypothesis: there is a significant relationship between the actors and the integrity of accounting information systems in Iran. Specific assumptions:

1. There is a significant relationship between technical activists and integrity of accounting information system in Iran.

2. There is a significant relationship between social and political activists and the accounting information system integration in Iran.

3. There is a significant relationship between organizational actors and integrity of accounting information systems in Iran.
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4. There is a significant relationship between economic actors and integrity of accounting information systems in Iran.

5. There is a significant relationship between the actors and the integration of technology in accounting information system.

In Table 1 the normalization of research variables have been considered.

**Table 1. Kolmogorof-Smirnof test.**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Number</th>
<th>Test</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical actors</td>
<td>120</td>
<td>1.34</td>
<td>.054</td>
</tr>
<tr>
<td>Social-political actors</td>
<td>120</td>
<td>1.09</td>
<td>.180</td>
</tr>
<tr>
<td>Organizational actors</td>
<td>120</td>
<td>1.41</td>
<td>.037</td>
</tr>
<tr>
<td>Economic actors</td>
<td>120</td>
<td>.798</td>
<td>.548</td>
</tr>
<tr>
<td>Actors Technology</td>
<td>120</td>
<td>.757</td>
<td>.615</td>
</tr>
<tr>
<td>Actors</td>
<td>120</td>
<td>.666</td>
<td>.766</td>
</tr>
</tbody>
</table>

In kolmogorof-Smirnof test the hypotheses of this study are defined as follows:

\{ 
H₀: Observations of the distribution follow
H₁: Observations of the distribution does not follow
\}

with regarding to the test statistic variables are between 1.96- to 1.96 and this is indicative of normality of variables. According to the normality of variables must used parametric tests to verify the assumptions.

5- Research hypotheses test

The main hypothesis: there is a significant relationship between the actors and the integrity of accounting information systems in Iran.

The test is designed for comparison of a variable with a constant amount. The studied hypothesis is as follows:

\{ 
H₀: \( \mu = 3 \)
H₁: \( \mu \neq 3 \)
\}
According to Table 2 results, because the level of significance of the test was 0.001 and less than 0.05, the null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 3.58 between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive. The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and with regard to the definition and establishment of these variables is result that type of activists has been significant and positive effect on the integrity of accounting information system.

1. There is a significant relation between technical actives and integrity of accounting information in Iran.

This test is designed for comparison of a variable with a constant amount.

The hypothesis of the study is as follows:

\[
\begin{align*}
H_0: & \ \mu = 3 \\
H_1: & \ \mu \neq 3
\end{align*}
\]

Table 3. Comparison with the constant test.

Because the significant level of this test is 0.001 and less than 0.05. Therefore, the null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 3.56, between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive. The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and with regard to the definition and establishment of these variables is the result of technical actors positive has been significant effect on the integrity of accounting information system.

2. There is a significant relationship between social and political activists and the accounting information system integration in Iran. The test is designed for comparison of a variable with a constant. The hypothesis of the study is as follows:
Prioritize activists in Iran information accounting system based on the actor's network theory (ANT)

\[
\begin{align*}
H_0 &: \mu = 3 \\
H_1 &: \mu \neq 3
\end{align*}
\]

**Table 4.** Average Comparison with the constant number test.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>The average</th>
<th>SD</th>
<th>T-test</th>
<th>Significance level</th>
<th>CI 95%</th>
<th>The variable situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social-political actors</td>
<td>3.42</td>
<td>.792</td>
<td>5.85</td>
<td>0.001</td>
<td>.567</td>
<td>.281</td>
</tr>
</tbody>
</table>

Because the significant level of this test is 0.001 and less than 0.05, the null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 3.42, between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive.

The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and with regard to the definition and establishment of these variables is the result of political-social activists positive effect on the integrity of accounting information system has been significant.

3. There is a significant relationship between organizational actors and integrity of accounting information systems in Iran.

**Table 5.** Average Comparison with the constant number test.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>The average</th>
<th>SD</th>
<th>T-test</th>
<th>Significance level</th>
<th>CI 95%</th>
<th>The variable situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational actors</td>
<td>4.09</td>
<td>.792</td>
<td>15.09</td>
<td>0.001</td>
<td>1.23</td>
<td>.948</td>
</tr>
</tbody>
</table>

According to the results in Table 5, the level of significance of the test was 0.001 and less than 0.05, the null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 4.09, between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive. The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and with regard to the definition and establishment of the outcome variable that corporate actors have a positive effect on the integrity of the system is significant and accounting information...
4. There is a significant relationship between economic actors and integrity of accounting information systems in Iran.

The test is designed for comparison of a variable with a constant. The hypothesis of the study is as follows:

**Table 6.** Average comparison with the constant number test.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>The average</th>
<th>SD</th>
<th>T-test</th>
<th>Significance level</th>
<th>CI 95%</th>
<th>The variable situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic actors</td>
<td>3.42</td>
<td>1.032</td>
<td>4.43</td>
<td>0.001</td>
<td>.604</td>
<td>.231</td>
</tr>
</tbody>
</table>

According to Table 6 results the level of significance of the test was 0.001 and less than 0.05, the null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 3.42, between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive. The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and due to the formation of the outcome variable is defined and how economic actors have a positive effect on the integrity of the system is significant and accounting information

5- There is a significant relationship between the actors and the integration of technology in accounting information system in Iran.

The test is designed for comparison of a variable with a constant amount. The hypothesis of the study is as follows:

\[
H_0: \mu = 3 \\
H_1: \mu \neq 3
\]

**Table 7.** Average comparison with the constant number test.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>The average</th>
<th>SD</th>
<th>T-test</th>
<th>Significance level</th>
<th>CI 95%</th>
<th>The variable situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors Technology</td>
<td>3.39</td>
<td>1.08</td>
<td>3.95</td>
<td>0.001</td>
<td>.587</td>
<td>.195</td>
</tr>
</tbody>
</table>

According to the results in Table 7, the level of significance of the test was 0.001 and less than 0.05, Null hypothesis is rejected at the level of error 0.05. The average of the variable in the population with the number 3, but it is significantly different. Since the sample mean is 3.39, between the lower and upper bound 95% confidence interval for the difference in number 3 are both positive. The result is that the average of the variable in the population is equal to 3, but significantly more than 3 and with regard to the definition and establishment of these variables is a result of the positive impact of technology activists has been significant effect on the integrity of accounting information system.
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Friedman test and ranking actors

Table 8. Summarizes the test.

<table>
<thead>
<tr>
<th>Number</th>
<th>Chi-square statistic</th>
<th>Degrees of freedom</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>228.31</td>
<td>4</td>
<td>0.001</td>
</tr>
</tbody>
</table>

According to the results of Table 8, according to the significance level is less than 0.05, and the possibility of ranking priorities are not the same variables. The actors in the research priorities include:

Table 9. Priority ranking actors.

<table>
<thead>
<tr>
<th></th>
<th>Average rating</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational</td>
<td>4.85</td>
<td>First priority</td>
</tr>
<tr>
<td>Technical</td>
<td>3.01</td>
<td>The second priority</td>
</tr>
<tr>
<td>Economic</td>
<td>2.55</td>
<td>The third priority</td>
</tr>
<tr>
<td>Actors Technology</td>
<td>2.38</td>
<td>The fourth priority</td>
</tr>
<tr>
<td>Social-political actors</td>
<td>2.22</td>
<td>The fifth priority</td>
</tr>
</tbody>
</table>

According to the results in Table 9, respectively, organization's first priority actors and technical actors, economic actors, activists, political activists, technology and social priorities were fourth and fifth.

4. CONCLUSIONS

In this research pay attention to the activists of prioritize research on the theory of network systems accountants were actors in audit firms. In analyzing data Kolmogorof-Smirnof test was used first to test the normality of the data, the results show the normality of the data. Based on this the analysis of the results of the main hypotheses and 5 particular hypotheses was discussed. The results show that, in general, the actors have significant positive effect on the integrity of accounting information systems. Also each of 5 actors in technical, organizational, political, social, economic and technological as well as has a significant and positive effect on the integrity of the system accounting information in Iran. In the ranking of actors based on their priority, according to Friedman's test results show that the average rating based on the opinions of respondents, institutional actors with an average of 4.85 ranks first priority and then the actors, technical, economic actors, activists, technology and social-political actors.

REFERENCES


