EVALUATING IMPACT OF MANAGEMENT ACCOUNTING PERFORMANCE ON ERP SYSTEM'S EFFECTIVENESS: A CASE STUDY OF INSURANCE COMPANY OF ATIYEHSAZAN HAFEZ –IRAN

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Abstract
The objective of this study is evaluating impact of management accounting performance on ERP system’s effectiveness (case study: Insurance Company of Atiyehsazan Hafez -Iran). Method of this study in term of objective is applied and in term of implementation is a description of causal type and finally method of data collecting is field. Questionnaire is considered as tools of data collection. Branches of Insurance Company of Atiyehsazan Hafez that are 36 branches are considered as statistical population. The number of samples analyzed has been 32 branches. Sampling method in this study has been non-probability sampling and convenience. Descriptive and inferential statistical methods are used to analyze data. In descriptive method is used indicators of such as mean, frequency and standard deviation and to test their hypotheses in inferential statistic are used regression method. The results of hypotheses test showed that components of performance management accounting (quality of management accounting reports, the adoption of new methods of management accounting, improving the decision-making process, the quality of management accounting information) have an impact on the effectiveness of enterprise resource planning but the responsibility of management accountants does not affect the effectiveness of enterprise resource planning.

Keywords: ERP, Quality of Management Accounting Reports, the Adoption of New Methods of Management Accounting, Improving the Decision-Making Process, the Quality of Management Accounting Information.

1. Introduction
In recent years due to the economic crisis and pressures and fierce competition in the market, most organizations about the results of the implementation of organizational information systems has been sensitized and seeks to measure their success (Petter; DeLone& McLean, 2008). Various factors are affecting the effectiveness of enterprise resource planning that including can be noted to the management accounting. In recent decades the field of management accounting has been entered to areas beyond the purely financial estimates and in a new approach, management accounting encompasses a wider range of as well as non-financial measures (Ashraf Ganjoei & Naebzadeh, 2013). The use of modern management accounting systems can provide important information for senior managers and other employees. Management accounting systems can help to managers to identify the weaknesses
and shortcomings of organization and offer solutions to resolve unsuccessful performance of organization and also can be effective in systems such as enterprise resource planning and overall performance of the organization (Jansen, 2011).

2. Problem Statement
Today's highly competitive business environment and changing due to the development of technology has led investors to seek new ways to the success of their organizations (Stefanou & Athanasaki, 2012). Various researchers have used several components to measure business performance (Taleghani & et al (a), 2013). Enterprise resource planning system is a set of software subsystems that include human resources, sales, finance and production that integrate all current data of processes in an organization. Software Subsystem has Ability to change and match the specific needs of each organization (Nazemi & et al, 2007). Organizations by investing enterprise resource planning system can be benefit from its technical benefits, such as eliminating redundancy, data replication, improve the architecture of agency IT, reduce software maintenance costs and also strategic interests, providing business growth, reduce operational and administrative cost, reduce storage costs, standard work procedures in different departments and branches of the organization and improvement of corporate decision-making process (Markus & Tanis, 2000). Enterprise resource planning system operates actually more than a simple software package and changes all business processes of the organization (Al-Mashari, 2003; Davenport, 1998). Nowadays however big turnout of organizations implementing enterprise resource planning system, but most of them has been unsuccessful in the achievement of the expected results from implementation of this system (Khanlari & Kafaei, 2014).

The world today is heavily influenced by the C3 (customer, competition and change). Effectiveness of organization is degree or extent to which organizations can achieve their desired goals (Taleghani & et al (b), 2013). Companies have found that in order to support their activities effectively and gain a larger share of the market enterprise resource planning should be replace separate information systems and their the application that are able them to automating daily tasks and reducing operational costs, production and sharing of common data and thus also improves their performance (Davenport, 1998; Nicolaou, 1999; Kumar and Hillegersberg 2000; Themistocleous et al., 2001; Stefanou, 2002; Nicolaou, 2004; Spathis and Ananiadis, 2005; Kanellopou and Spathis, 2011). Adoption of successful enterprise resource planning system is a major challenge for many current organizations and depends to many factors (Saharia et al., 2008; Baptiste, 2009; Grabski et al., 2011; Sangster et al., 2009). Changes in business processes of organization related to the successful implementation of enterprise resource planning and have significant implications for all parts of the accounting and management accounting especially. In the past, management accounting responsibility was limited. But in the current business environment will include all levels of management (Stefanou & Athanasaki, 2012). So companies to survive and expand their activities require appropriate and timely investments (Gilaninia & et al, 2012). It is a fact that information technology plays an important role in the professional management accounting (Granlund, 2010). Previous studies also have shown that management accounting will change with human resource planning systems in organizations. In addition, a small proportion of management accounting changes has been due to the success of enterprise resource planning system (Brazel and Dang, 2008; Granlund, 2010; Kanellopou and Spathis, 2011). Most studies generally tend to focus on describing changes made in the use of enterprise resource planning. Thus main question of study is expressed as follows:
Does management accounting performance affect effectiveness of ERP systems?

3. Research Conceptual Model
Model used for the study is adapted from research of Stefanou & Athanasaki (2012). Thus research model is as follows:

![Conceptual Model](image)

Figure 1) conceptual model modified (Stefanou & Athanasaki, 2012)

4. Research Hypotheses
1. Quality of management accounting reports affects ERP system’s effectiveness.
2. Adoption of new methods of management accounting affects ERP system’s effectiveness.
3. Improving decision making process affects ERP system’s effectiveness.
4. Quality of management accounting information affects ERP system’s effectiveness.
5. Responsibility of management accountants affects ERP system’s effectiveness.

5. Research Methodology
Method of this study in term of objective is applied and in term of implementation is a description of causal type and finally method of data collecting is field. Branches of Insurance Company of Atiyehsazan Hafez that are 36 branches, considered as statistical population. The number of samples analyzed has been 32 branches. Sampling method in this study has been non-probability sampling and convenience. Questionnaire is considered as tools of data collection. It is designed based on previous research and also their validity has confirmed by supervisor and some experts. Cronbach test results show that the questionnaire has been reliable. Descriptive and inferential statistical methods are used to analyze data. In descriptive method is used indicators of such as mean, frequency and standard deviation and to test their hypotheses in inferential statistic are used regression method.
6. Research Findings

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>R</th>
<th>B</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>First sub-hypothesis</td>
<td>0.564</td>
<td>0.363</td>
<td>0.001</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Second sub-hypothesis</td>
<td>0.760</td>
<td>0.621</td>
<td>0.000</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Third sub-hypothesis</td>
<td>0.596</td>
<td>0.447</td>
<td>0.000</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Fourth sub-hypothesis</td>
<td>0.530</td>
<td>0.481</td>
<td>0.002</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Fifth sub-hypothesis</td>
<td>0.097</td>
<td>-0.065</td>
<td>0.593</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Results of first hypothesis test show that sig= 0.001 and this value is lower than \( \alpha=0.05 \), thus research hypothesis is confirmed and quality of management accounting reports affects ERP system’s effectiveness. Since the beta obtained (Beta= 0.564) is positive, so the quality of management accounting reports has direct effect on ERP system’s effectiveness. Also correlation coefficient (R) is 0.564 and the coefficient of determination (\( R^2 \)) is also 0.318. In other words, 31.8\% of ERP system’s effectiveness can be explained by quality of management accounting reports.

Results of second hypothesis test show that sig= 0.000 and this value is lower than \( \alpha=0.05 \), thus research hypothesis is confirmed and adoption of new methods of management accounting affects ERP system’s effectiveness. Since the beta obtained (Beta= 0.760) is positive, so adoption of new methods of management accounting has direct effect on ERP system’s effectiveness. Also correlation coefficient (R) is 0.760 and the coefficient of determination (\( R^2 \)) is also 0.578. In other words, 57.8\% of ERP system’s effectiveness can be explained by adoption of new methods of management accounting.

Results of third hypothesis test show that sig= 0.000 and this value is lower than \( \alpha=0.05 \), thus research hypothesis is confirmed and improving decision making process affects ERP system’s effectiveness. Since the beta obtained (Beta= 0.596) is positive, so improving decision making process has direct effect on ERP system’s effectiveness. Also correlation coefficient (R) is 0.596 and the coefficient of determination (\( R^2 \)) is also 0.355. In other words, 35.5\% of ERP system’s effectiveness can be explained by improving decision making process.

Results of fourth hypothesis test show that sig= 0.002 and this value is lower than \( \alpha=0.05 \), thus research hypothesis is confirmed and quality of management accounting information affects ERP system’s effectiveness. Since the beta obtained (Beta= 0.530) is positive, so quality of management accounting information has direct effect on ERP system’s effectiveness. Also correlation coefficient (R) is 0.530 and the coefficient of determination (\( R^2 \)) is also 0.281. In other words, 28.1\% of ERP system’s effectiveness can be explained by quality of management accounting information.
- Results of fifth hypothesis test show that sig= 0.593 and this value is higher than α=0.05, thus research hypothesis is rejected and responsibility of management accountants doesn’t affect ERP system’s effectiveness.

7. Conclusion and Recommendations
The results of hypotheses test showed that components of performance management accounting (quality of management accounting reports, the adoption of new methods of management accounting, improving the decision-making process, the quality of management accounting information) have an impact on the effectiveness of enterprise resource planning but the responsibility of management accountants does not affect the effectiveness of enterprise resource planning. So according to the results following suggestions are offered:

1- Based on the results of the first hypothesis test, quality of management accounting reports affects ERP system’s effectiveness thus it is recommended that reports sent by the management accountants are accurately represented and be available for employees timely and in necessary time and also reports have the necessary flexibility.

2- Based on the results of the second hypothesis test, adoption of new methods of management accounting affects ERP system’s effectiveness thus it is recommended that always new techniques be acceptable in organizations and quickly is replaced in organizations. It also be welcomed the new and advanced techniques and is trained to do this for employees.

3- Based on the results of the third hypothesis test, improving decision making process affects ERP system’s effectiveness thus it is recommended that organization given enough information to employees and also supports correct decisions and is try to strengthen decisions.

4- Based on the results of the fourth hypothesis test, responsibility of management accountants affects ERP system’s effectiveness thus it is recommended that the output information of accounting be provided high-quality and with good utility and done properly.

References


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