

Investigating The Effective Factors In The Internal Audit Of Organizations

Mehmet Hanifi Ayboğa^a, Farshad Ganji^{b*}

^a Co-author Prof. Dr. in the Institute of Social Sciences Accounting and Tax Department Of Marmara University, Istanbul, Turkey.

^b Corresponding Author Business-Accounting and Finance Ph.D. The student in the Institute of Social Sciences of Istanbul Arel University, Istanbul, Turkey.

*Corresponding Author

E-mail: farshadganji69@yahoo.com.

Article History: Received: 14 July 2020; Accepted: 2 January 2021; Published online: 5 February 2021

Abstract: The present study examined the factors affecting the effectiveness of internal audit. The effect of two intra-organizational factors of internal audit competence, the interaction of internal and external auditors as an independent variable on the effectiveness of internal audit (dependent variable) was tested. The statistical sample is estimated at 200 managers and auditors according to Krejcie and Morgan table. According to the statistical population, the whole population has been selected as a sample and 170 usable questionnaires were obtained from which we examined the results of the research. The results of the present study show that the variables of audit competence within the interaction of internal and external auditors have a significant relationship with the effectiveness of internal audit.

Keywords: Internal Auditor, Internal Auditor Competence, Internal and External Auditor Intervention

1. Introduction

For a long time, senior managers of economic units have been working tirelessly to achieve better ways and methods of internal control. Managers know very well that in the absence of an effective internal control system, the main mission of the company is very difficult to maintain profitability and minimize unexpected events. In the face of rapidly changing economic and competitive environments and changing customer demand and tastes, and restructuring in order to grow in the future, the service employs an internal control system to be able to react in a timely manner. Internal controls increase efficiency, reduce the risk of losing assets, and provide reasonable assurance about the reliability of financial statements and compliance with rules and regulations.

Effective internal controls ensure that the business unit can achieve its goals. To achieve this goal, it must be ensured that internal control reports are reliable. This includes efficient access to laws, regulations, policies and obligations of the company (Hasas Yeganeh and Taghi Nejat Malekshah, 2006).

Providing reliable financial information through auditing financial statements will provide relative confidence in the information presented in the financial statements, but in auditing financial statements, evaluating the effectiveness of internal controls is one of the key steps (deposit). And Kouchaki, 1387).

The job of internal auditors is to investigate and evaluate the internal control system and the efficiency of each part of the business unit in performing the tasks assigned to report its findings and provide correction suggestions to senior management. Internal auditors' audits are often referred to as operational audits because they aim to determine the impact of existing procedures and practices on the efficiency of the entity's operations. For example, independent auditors

examine a company's credit sales policies primarily to determine the adequacy of doubtful receivables. If the internal auditors pay attention to the observance of the procedures and methods of the business unit by the employees and the possibility of making changes in the existing procedures and methods to increase the efficiency of this operation.

In Iran, for various reasons, the system of internal controls is not in a favorable situation and to achieve the micro and macro goals of the economic community, it seems very necessary to make changes in this area. Using appropriate tools to evaluate the internal control system is a good way to start these systematic developments. Having an effective internal auditor is critical to helping management evaluate and improve the internal control system and, consequently, the organization's goals. In addition, internal auditors have an important role to play in maintaining the effectiveness of the internal control system.

Existence of effective factors of internal audit effectiveness can give users information about weaknesses and management performance, but in our country at present there is no report called effective internal audit effective factors. Some of the most important financial indicators were examined and tested to determine the factors affecting the effectiveness of internal audit in Iranian companies. Therefore, the important issue in this study is what factors have a significant impact on the effectiveness of internal audit?

2. Research Methods

This research is of applied type and in terms of data collection type is experimental research. In terms of the temporal realm of the present study in 1394 and in terms of the spatial realm related to the auditing organization

The statistical sample according to Krejcie and Morgan table is estimated to be 200 managers and auditors that out of 200 distributed questionnaires, 170 questionnaires have been accepted by the researcher. Due to the small statistical

population, the whole population is selected as a sample and a questionnaire was distributed among them by census sampling method.

Data collection method

In this study, data collection was done in two stages. In the first stage, the library method is used to formulate the theoretical foundations of the research, and in the second stage, a questionnaire is used to collect the desired data. To formulate the theoretical foundations of the research, the library method and part of the data needed to calculate the research variables have been extracted. The data were then aggregated in Excel columns and analyzed with Spss software.

3. Research Model

Variables In The Community And After Describing The Data, The Researcher Has Used Correlation Coefficients To Test Hypotheses which Is Specified In Figure 1 With Inferential Statistics Models And According To The Distribution Of Research Variables In The Community.

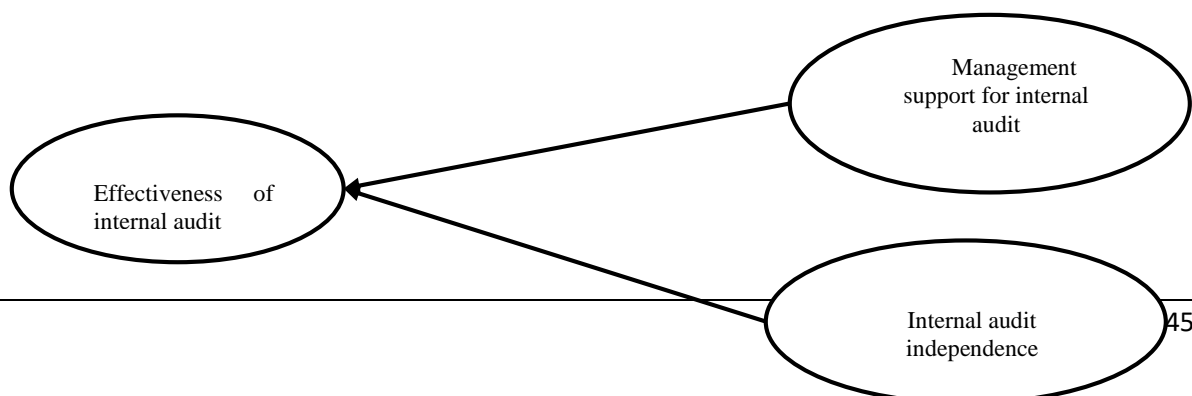


Figure 1: Research model and according to the distribution of research variables in the community:

(Alzban and William¹ Research, 2014)

4. Results and Findings

Descriptive findings of the research sample

As can be seen in Table 1, out of 170 participants in this study, 64 had a bachelor's degree, 80 had a master's degree and 26 had a doctorate (or doctoral student). Also, out of 170 people participating in this study, 5 people equal to 3% have the position of head of audit, 16 people equal to 9% have the position of audit manager, 22 people equal to 13% have the position of senior supervisor, 13 people equal to 8 Percentage has the position of supervisor, 28 people equivalent to 16% have the position of senior auditor, 51 people equivalent to 30% have the position of auditor, 35 people equivalent to 21% have the position of assistant auditor.

Table 1: Frequency and frequency percentage of education level and job of the research sample:

Educational degree	Number	Percentage
expert	64	37
Masters	80	47
P.H. D	26	16
skill	-	-
total	170	100
Job range	Number	Percentage
Head of Audit	5	3
Audit Manager	16	9

¹ Alzban and william

Senior Supervisor	22	13
Supervisor	13	8
Senior Auditor	28	16
Audit	51	30
Assistant Auditor	35	21
TOTAL	170	100

Table 2 shows the findings related to the research variables as mean, standard deviation, minimum and maximum score.

Table 2. Descriptive findings:

Statistical indicators Variables	Average	Standard deviation	At least/min	Maximum	Number
Effectiveness of internal audit	0/529	3/7482	1/20	4/73	170
Competence of the internal audit department	0/368	2/457	1/40	3/60	170
Interaction of internal and external auditors	0/511	3/603	1/33	4/56	170
Management support for internal auditors	0/649	3/671	0/83	4/83	170
Internal audit independence	0/567	3/749	1/00	4/80	170

Data normality test:

The Kalmogorov-Smirnov test was used to test the normality of the variables. This test is a simple non-parametric method for determining the homogeneity of experimental information with selected statistical distributions and is indicated by the abbreviation KS. (Adel Azar 1379). To get the interpretation we have to look at the Z value of the Calmoff-Smirnov test. If its value was less than +1.96 and greater than -1.96, we conclude with 95% confidence that there is no difference between the observed and expected frequencies. In other words, the distribution of society is normal. But if its value is less than -1.96 or greater than +1.96, we conclude with 95%

confidence that there is a difference between the observed and expected frequencies. In Table 3. words, the distribution is not normal.

Table 3.Test of normality of research variables

Variable	Kolmogorov-Smirnov Statistics	Significance level	Absolute critical value of elongation	Absolute value of skewness
Effectiveness of internal audit	2/193	0/000	0/087	-0/168
Competence of the internal audit department	1/873	0/002	0/144	-0/130
Interaction of internal and external auditors	2/373	0/000	0/118	-0/182
Management support for internal auditors	2/492	0/000	0/105	-0/191
Internal audit independence	2/326	0/000	0/127	-0/178

According to the results of the above table and the values obtained for the Kolmogorov-Smirnov z statistic, not all variables are 95% normal. However, considering that the critical absolute value of elongation and skewness is less than 2.58, it can be said that the data have a normal distribution.

Testing hypotheses

Hypothesis 1: There is a significant relationship between the competence of the internal audit department and the effectiveness of the internal audit.

H0: There is no significant relationship between the competence of the internal audit department and the effectiveness of the internal audit.

H1: There is a significant relationship between the competence of the internal audit department and the effectiveness of the internal audit.

To test the hypothesis, between the competence of the internal audit department and the effectiveness of the internal audit, Pearson correlation test was performed with a probability of error of 0.05. In this test, the value of sig was equal to 0.000. **Table 4.** Since the obtained sig value is less than 0.05, the hypothesis H0 that there is no significant relationship between the two variables is rejected and the hypothesis H1 that there is a significant relationship between the competence of the internal audit department and the audit effectiveness is rejected. Internally approved.

$H0: r = 0$

$H1: r \neq 0$

Table 4. Results of the first hypothesis test:

Variable	Coefficient	Statistic t	Significance level	Correlation Coefficient
Intercept	4/324	15/888	0.000	
Competence of the internal audit department	-0/234	-2/141	.034	*0/163
Determination coefficient	0/163	Statistic F	4/582	Significance level of correlation coefficient
Modified determination coefficient	0.027	Statistic (P-VALUE) F	0.034	
Durbin-Watson statistic	2.01	Times of observation	170	0.034
Statistical result	Hypothesis 1 (H1) is accepted.			

Establish regression model preconditions:

The statistic value of the Watson camera is 2.01, and this value is close to 2, so we can conclude that the data are not self-correlated.

The adjusted coefficient of determination of the Baber model is 0.02, which means that about 2% of the changes in the dependent variable can be described as independent variables.

The probability value of F statistic is less than 5%, so the null hypothesis of the statistic based on the inadequacy of the model (H0: all coefficients of the regression model are zero) is rejected with 95% confidence, thus confirming the adequacy of the model to test the hypothesis. By confirming all the above preconditions, we can be confident in the results of the final fitted model.

Hypothesis 2: There is a significant relationship between the interaction of internal and external auditors and the effectiveness of internal audit.

H0: There is no significant relationship between the interaction of internal and external auditors and the effectiveness of internal audit.

H1: There is a significant relationship between the interaction of internal and external auditors and the effectiveness of internal audit.

To test this hypothesis, between the interaction of internal and external auditors, and the effectiveness of internal audit, Pearson correlation test was performed with a probability of error of 0.05. In this test, the value of sig was equal to 0.000. Since the obtained sig value is less than 0.05, the hypothesis H0 that there is no significant relationship between. **Table 5.** the two variables is rejected and the hypothesis H1 that there is a significant relationship between the interaction of internal and external auditors and the effectiveness of the audit is rejected. Internally approved.

Table 5. Results of the second hypothesis test:

Variable	Coefficient	Statistic t	Significance level	Correlation Coefficient
Intercept	1/796	15/178	0.000	

Interaction of internal and external auditors	0/750	14/692	0.000	0/750
Determination coefficient	0.750	Statistic F	215/846	Significance level of correlation coefficient
Modified determination coefficient	0.562	Statistic (P-VALUE) F	0.000	
Durbin-Watson statistic	2/320	Times of observation	170	0.000
Statistical result	Hypothesis 1 (H1) is accepted.			

Establish regression model preconditions:

Watson's camera statistic is 2,320, so we can conclude that the data are not self-correlated.

The adjusted coefficient of determination of the Baber model is 0.562, which means that about 56% of the changes in the dependent variable can be described as independent variables.

The probability value of F statistic is less than 5%, so the null hypothesis of the statistic based on the inadequacy of the model (H0: all coefficients of the regression model are zero) is rejected with 95% confidence, thus confirming the adequacy of the model to test the hypothesis. By confirming all the above preconditions, we can be confident in the results of the final fitted model.

Correlation test:

Table 6 shows the correlations between all variables. There is a correlation of 61% between the interaction of internal and external auditors and the effectiveness of internal audit and considering the level of significance which is less than 5%, it can be said that there is a significant correlation between the interaction of internal and external auditors and the effectiveness of internal audit. There is a correlation of 16% between internal audit competence and internal audit effectiveness and considering the level of significance which is less than 5%, it can be stated that there is a significant correlation between internal audit competence and internal audit effectiveness.

Table 6. Correlation coefficient between all variables

Variable names	Effectiveness	Protection	Independence
Effectiveness	1		
Protection	0/617 0/000	1	

Independence	1	-0/164 0/032	-0/163 0/034
--------------	---	-----------------	-----------------

The results of testing the hypotheses show that there is a significant relationship between the variables of interaction between Table 7- Results internal and external auditors and the effectiveness of internal accounting at the level of 5% error and internal audit competence has no significant relationship with the effectiveness of internal audit. In the table below, it should be stated that internal audit competence has less explanatory power than other components of internal audit. Therefore, in general, along with other variables and components of internal audit, internal audit competence has less effect on internal audit effectiveness. is. Also, in examining the characteristics of individuals and considering that the majority of the statistical sample had the position of auditor and assistant auditor, we have seen that the majority of these individuals have non-accounting or auditing documents in the auditing profession. This indicates that individuals are not qualified for initial employment, although they may later acquire professional skills.

Table 7. Hypothesis test results:

Variable	Coefficient	Statistic t	Significance level
Width of origin	0/339	3/109	*0/002
Interaction	0/271	3/279	*0/001
Competence	-0/013	-0/225	0/822
The coefficient of determination	0/694	Statistic F	38/391
Adjusted coefficient of determination	0/469	Statistic (P-VALUE) F	0/000
Camera Statistics - Watson	1/672	Times of observation	170
Statistical result	Hypothesis 1 (H1) is accepted.		

Establish regression model preconditions:

Watson's camera statistic is 1.672, so we can conclude that the data are not self-correlated.

The adjusted coefficient of determination of the Baber model is 0.694, which means that about 47% of the variable variables can be described as independent variables.

The probability value of F statistic is less than 5%, so the null hypothesis of the statistic based on the inadequacy of the model (H0: all coefficients of the regression model are zero) is rejected with 95% confidence, thus confirming the adequacy of the model to test the hypothesis. By confirming all the above preconditions, we can be confident in the results of the final fitted model.

5. Discussion

In this study, the effective factors in ethering the internal audit of organizations were examined, and the obtained results confirmed the assumptions of the study. *R* to the effectiveness of the internal audit.

Hypothesis 2: There is a significant relationship between the interaction of internal and external auditors and the effectiveness of internal audit. This result indicates that the interaction of independent audit with internal audit in many ways of doing work leads to saving audit. time and the internal auditor can make better plans and spend more time for other areas of activity. Give Also, with the interaction performed, the internal auditor can use the experience of the independent auditor in performing some actions. The results are in line with previous research;(Fateri et al, 2014) conducted a study entitled Identifying the effective factors in the reliance of independent auditors on the work of internal auditors (with emphasis on corporate governance). The main purpose of this study was to determine the degree of reliance of independent auditors on internal audit performance and also to understand how the five factors (internal auditor independence and objectivity, competence, performance, internal audit effectiveness, and inherent risk level) affect the reliance on audited information. By internal auditors. The results of the Mann-Whitney U test show that the degree of reliance of the independent auditor on the work of the internal auditor is not related to the level of competition of independent auditors in the audit firms and the audit organization. The results of multiple diagnostic analysis show that the performance of the internal auditor is the most important factor in determining the level of reliance of the independent auditor on the work of the internal auditor. In general, the results of this study show that organizations can increase the effectiveness of corporate governance by strengthening their internal audit unit and supporting coordination between independent and internal auditors.

(Pourheidari and Rezaei ,2012) conducted a study entitled Review of Factors Affecting the Value Added of Internal Audit in Companies Listed on the Tehran Stock Exchange. In this study, a written questionnaire whose reliability and validity were confirmed was used to collect data. The statistical population of this study was the companies listed on the Tehran Stock Exchange in 2009. T-test was used to test the hypotheses of this study. The findings of this study showed that the organizational position of the auditor, training, work environment, risk assessment, variety of services, performance appraisal, advertising and the use of new methods affect the effectiveness of internal audit and lead to added value of internal audit. The results also showed that there is a significant difference between the views of managers and the views of internal auditors in relation to the factors affecting the added value of internal audit. Another finding of the research is the preparation of a conceptual model to create maximum added value of internal audit.

In order to further research in this field, it is suggested to future researchers to examine the relationship between the characteristics of the audit committee and the effectiveness of internal audit. It is also suggested that the factors affecting the competence of internal auditors be examined and prioritized.

References

1. Sensitive, Yahya and Taqi Malekshah Results, Gholam Hossein, (2006). & QUOT; Relationship between Internal Control Reporting and User Decision Making & QUOT ;, Quarterly Journal of Accounting Studies, No. 14, pp. 44-1
2. Alzeban A, Gwilliam D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector, J. Int. Account. Audit.Taxat. 23: 74-86.

3. Doz, C., Giannone, D. and Reichlin, L. (2007), "A Two-Step Estimator for Large Approximate Dynamic Factor Models based on Kalman Filtering". Discussion Paper 6043, January, CEPR.
4. Forni, M., Hallin, M., Lippi, M. and Reichlin, L. (2000), "The Generalized Dynamic Factor Model: Identification and Estimation". *The Review of Economics and Statistics*, (82) 4, 540-554.
5. Forni, M., Hallin, M., Lippi, M. and Reichlin, L. (2004), "The Generalized Dynamic Factor Model, Consistency and Convergence Rates". *Journal of Econometrics*, (119) 2, 231-255.
6. Forni, M., Hallin, M., Lippi, M. and Reichlin, L. (2005), "The Generalized Dynamic Factor Model, One Sided Estimation and Forecasting". *Journal of the American Statistical Association*, (100), 830-840.
7. Geweke, J. (1977), "The Dynamic Factor Analysis of Economic Time Series". In: Aigner, D. and Goldberger, A. (Eds.), *Latent Variables in Socio-Economic Models*, Amsterdam: North-Holland
8. He, Q. Leung, PH. and Chong, TTL. (2013), "Factor-augmented VAR analysis of monetary policy in China", *China Economic Review*, (25), June 2013, 88–104.
9. Huh, H. Kim, D. Kim, WJ and Park, CY (2014), "A Factor-Augmented Vector Autoregression Analysis of Business Cycle Synchronization in East Asia and Implications for a Regional Currency Union", *Asian Development Bank Working Paper Series*, No. 385.
10. Khezri, M. ; Sahabi, B. ; Yavari, K. Heydari, H. ; (2015), "Speculation Effects on Inflation in Iran Economy: TVP-FAVAR Model", *Economics Research* 15 (57): 193-228.
11. Kilic, E. and Cankaya, S. (2015), "Consumer Confidence and Economic Activity: A Factor Augmented VAR Approach", Available at SSRN: <https://ssrn.com/abstract=2668785> or <http://dx.doi.org/10.2139/ssrn.2668785>
12. Killian, L. and Lutkepohl, H. (2017), "Structural Vector Autoregressive Analysis", Cambridge University Press.
13. Liu, P. Mumtaz, H. and Theophilopoulou A. (2014), "The transmission of international shocks to the UK. Estimates based on a time-varying factor augmented VAR ", *Journal of International Money and Finance*, (46), 1–15
14. Moench, M. (2008), "Forecasting the yield curve in a data-rich environment: A no arbitrage factor-augmented VAR approach", *Journal of Econometrics*, (146), 1, 26–43
15. Rosoiu, A. (2015), "Monetary Policy and Factor-Augmented VAR Model", *Procedia Economics and Finance*, (32), 400-407.
16. Sargent, T. and Sims, C. (1977), "Business Cycle Modeling without pretending to have too much a-a priori Economic Theory". In: Sims (Ed.), *New Methods in Business Cycles Research*. Minneapolis: Federal Reserve Bank of Minneapolis.
17. Sims, C. (1992), "Interpreting the Macroeconomic Time Series Facts: The Effects of Monetary Policy", *Cowles Foundation Discussion Paper No. 1011*.
18. Soares, R. (2013), "Assessing monetary policy in the euro area: a factor-augmented VAR approach", *Applied Economics*, (45), 19, 2724-2744.
19. Stock, J. and Watson, M. (1998), "Diffusion Indexes". Working Paper 6702, August, NBER.