

THE IMPACT OF RISK BASED INTERNAL AUDIT ON FINANCIAL PERFORMANCE: A CASE OF ETHIOPIAN AIRLINES

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Abstract

The purpose of this study was to investigate the impact of risk based internal audit (RBIA) System on financial performance of Ethiopian Airlines (EAL). Financial performance of 14 years was analyzed as to pre and post adoption of RBIA system through descriptive statistics and ordinary least square (OLS). The Study investigated that the adoption of RBIA system has improved the profit, available seat kilometer, available ton kilometer and revenue as compared with performance of pre adoption of RBIA system has improved profit at 0.653957 within 5% confidence interval. Therefore, the study recommends emphasizing on the effectiveness of RBIA system. The study was limited to analyze financial performance of pre and post adoption of RBIA system to investigate its impact.

Key Words: Risk Based Internal Audit System, Pre and Post Adoption of Risk Based Internal Audit System, Financial Performance, And Ethiopian Airline.

Introduction

The IIA defines Risk Based Internal Audit (RBIA) as a methodology that links internal auditing to an organization's overall risk management framework. RBIA allows internal audit to provide assurance to the board that risk management processes are managing risks effectively in relation to the risk appetite.

Goodwin-Stewart and Kent (2006) explained that in RBIA methodology, internal auditors play a key role in monitoring a company's risk profile and identifying areas to improve risk management. The aim of internal auditing is to improve organizational efficiency and effectiveness through constructive criticism. Therefore, the effective RBIA practices have unrecoverable value on the achievement of organizational goals. According to Tamer Aksoy (2012) effective IA functions facilitate financial and operational services of companies to achieve key business objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness of corporate governance, risk management and internal control processes. This means RBIA improving achievement of organizational goals through strengthening internal control, risk management and governance process.

However, the impact of RBIA on the financial performance which is an important concept was inadequately investigated and analyzed. Mutua Virginia Kasiva (2010) noted that unfortunately, the impact of RBIA practices on the financial performance has not yet investigated. Moreover, Chen (2003), and Krishnan, (2005) indicated that most studies have been conducted on role of risk based audit on organizations corporate governance. Therefore, this study was conducted to investigate the impact of RBIA on financial performance of EAL.



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Literature Review

The Concept of Risk Based Internal Audit

Risk-based internal auditing focuses on strategic analysis, business process evaluation and on assessing the goals, risks and controls that must coalesce for an organizations' success by identifying, assessing, and monitoring a company's risk, internal auditing helps assure that resources are adequate and focused on priorities (Kunkel, 2004).

Generally, risk-based auditing assesses areas of heightened risk (Griffiths, 2006), and importantly, conducts continuous risk assessments (O'Regan, 2002). The knowledge gained from a comprehensive annual risk assessment as well as from risk assessments undertaken at the outset of every internal audit engagement should be shared with management and the board (IIA. (2013, June 12).).

According to Griffiths D. (2006) RBIA basically have steps which includes risk assessment, risk based audit plan, performing audit engagement, communicating the engagement reports and performing follow-up audit. RBIA therefore has the potential to make the internal audit function more focus, effective and efficient in its operations and resource usage, thereby creating value for the organization.

Financial Performance Measures

Performance measurement systems that could be used in business firm, Anh and Matsui (nd), could be Quality-based measure, Time-based measure, Cost- based measure or Flexibility based measures. Among these performance measurements, financial performance measure is cost based measure which is very important for this research propose. Because they overcome the individual biases that could encounter at the time of responses.

There are many different ways to measure firm's financial performance. This may be reflected in the firm's return on investment, return on assets, value added, among others and is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues. Financial performance of firms can be evaluated using many financial indicators such as liquidity ratios, profitability ratios and others for example, Zaidah and Zainal, (2007).

The performance of the companies under consideration is formulated as a function of major important variables. For example, Naser K. and Mokhtar M. (2004) and the work of Levine and Toffel (2008) has developed the financial performance measures by formulating the profit, sales, revenue and cost. To achieve the research objectives, Naser K. and Mokhtar M. (2004), Levine and Toffel (2008) model of financial performance measure was used. This is because RBIA is an event, which requires pre and post implementation analysis to investigate its impact on financial performance. Accordingly, financial performance indicators in airline industry include profit, revenue, cost and load factors such as available seat kilometer, available tone kilometer (Ethiopian Airlines: annual report (2000 to 2013)).

Empirical evidences of Risk Based Audit and Financial Performance

According to IIA (2004) RBIA was introduced to expanding role of internal audit which in recent years has evolved from a narrow focus on control to include risk management and corporate governance. Thus, RBIA improves performance of the companies through providing constructive assurance to strengthen the internal control, risk management and governance processes.



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The empirical findings by Al-Mazrooei (2007) and Al-Tamimi (2002) highlighted that; UAE firms 'are efficient in internal auditing. Drzik (1995) stated that, firms' Administration Risk based audit Survey showed that large firms' in the US had made substantial progress in their financial performance.

Mutua Virginia Kasiva (2010) has concluded that, risk based auditing through risk assessment, risk management, annual risk based planning, internal auditing standards and internal auditing staffing should be enhanced. Tatiana Danescu, Anca Oltean (Muntean), and Raluca Sandru (2010) have founded that the risk based internal audit practices should be enhanced in the context of value addition to the organization, the increasing pressure for addressing exposure to risks, regulatory requirements for risk assessment and quantification.

Silvia Popescu & Abdelnaser Omran (2011) founded that, internal audit is the pillar of support management through evaluating risk assessment, risk management process and providing assurance on internal control and governance process which enhance the performance of the organization.

Mutua Virginia Kasiva (2012) founded that that risk-based auditing through risk management, risk based audit plan, internal audit capacity, and internal auditing standards should be enhanced to enable the organization concerned to detect risks on time which will improve the financial performance of insurance companies. Nahwera Mercy (2012); founded that, internal audit function had a significant positive effect on financial performance in terms of control environment, risk assessment, control activities, information and communication, monitoring and advisory services. The study was carried out to determine whether the internal audit function impacts the financial performance of NSSF.

Mahmoud Hematfar and Mohsen Hemmati (2013) have conducted research in relation traditional audit. The purpose was to compare risk-based and traditional auditing and their effect on the quality of audit reports and financial performance. The results of t-test showed that risk-based auditing creates significantly more valid and more reliable audit reports than traditional auditing. It can thus be concluded that risk-based auditing can gain the trust and confidence of the users of audit reports and enhance the organizations performance.

Objectives of the Study

The major objective of the study was to investigate the impact of RBIA system on financial performance of EAL with the following specific objectives:

- a. To analyze financial performance of 7 (2000/1 to 2006/7) years before adoption of RBIA system;
- b. To analyze financial performance of 7 (2007/8 to 2013/14) years after adoption of RBIA system; and
- c. To find out the impact of RBIA system, ATK, ASK, Revenue and Cost on the Profit.

Research Design and Methodology

The inquiry paradigm in the research is generally predisposed by a researcher existing knowledge and believes. This believes represent how the researcher views and seeks to understand the world. Thus, positivist researchers normally adopt quantitative methods and constructivist researchers adopt qualitative methods. The other paradigm is combination of positivism and constructivism (that is mixed method).



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Hence, research design refers to the way the study is designed, that is the method used to carry out the research (Mugenda and Mugenda (2003). The purpose of this study was to investigate the impact of RBIA system on financial performance of the EAL. Therefore, quantitative method was used since it enables the researcher to conduct analysis using secondary sources of data (Soy, 1997). Hence, data analysis, discussions and interpretation was carried out using quantitative research techniques.

Financial statement data for the 14 years was used. Data was divided in to pre and post adoption of RBIA system. Pre adoption of RBIA system includes the financial statement data from 2000/01 to 2006/07 and post adoption of RBIA system includes the financial statement data from 2007/08 to 2013/14.

The time period was selected based on judgmental method to analyze the financial statement data from 2000/01 to 2013/14 since it is reasonable for the researcher to achieve the stated objectives. In addition, annual performance report was used as source of data. The research was limited to analyze financial performances of the EAL with regard to pre and post adoption of RBIA system to investigate its impact on financial performances.

Data Analysis Method

Financial data was analyzed through Eview 7 software. The major financial performance variables such as profit, annual sales in load factor (available seat kilo meter and available ton kilo meter), annual revenue and cost were analyzed through quantitative statistical result of mean, maximum and minimum.

The analysis was conducted for financial data over 14 years that is, pre (7 years) and post (7 years) of the adoption of RBIA system. The net differential performance of variables between pre and post adoption of RBIA system was described and analyzed. In addition, to investigate the impact of RBIA system, financial statement data was regressed through ordinary least square method (OLS). RBIA system has value of zero before and value of one after adoption to investigate its impact on financial performance.

Accordingly, the study adopted the model of Naser et al. (2004), Levine and Toffel (2008) and incorporated available seat kilometer and available ton kilo meter instead of sales in quantity and RBIA dummy instead of ISO. Therefore, model was modified as follows:

$\ln PROFITt = \beta 0 + \beta 1 \ln ASKt + \beta 2 \ln ATKt + \beta 3 \ln REVt + \beta 4 \ln COSTt + \beta 5 RBIA dumyt + \epsilon t$,

Where, PROFIT is the company's profit which is used as a measure of its performance. ASK represent the overall passenger seat capacity measured in seats available multiplied by flight distance, ATK represents overall capacity measured in tones available for carriage of passengers and cargo multiplied by the distance flown, whereas REV and COST denotes the annual revenue and cost of services respectively. RBIA is a dummy variable taking a value of one after the after and zero before adoption of RBIA system. "t" refers to time. Finally, ϵt is the error term composed of individual impact (μ) and time impact (vt) and "In" is the natural logarithm of the variables.

The significance of coefficient of the explanatory variables was tested using the joint test which is the F-statistic. In addition, the overall explanatory power of the model was checked through adjusted R-square. The fitness of data was checked through unit root test and the basic classical linear regression model assumptions. Thus, the model was validated and fitted for the research.



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Data Presentation

Financial Performance Trends for the 14 years

The descriptive statistics of the major variables reveal that the EAL experienced mean, maximum and minimum values for profit, ATK, ASK, revenue and cost. This describes the performance indicators of EAL over the 14 operational years as shown in the following table.

Description	Variables					
	Profit	Available tone	Available seat kilometer	Revenue	Cost	
		kilometer				
Mean	19.89018	14.56427	16.17947	22.86990	22.79319	
Maximum	22.07755	15.64521	17.17693	24.48195	24.38729	
Minimum	18.04747	13.30115	14.96045	21.42409	21.49862	

Table 1: Descriptive statistics of major variables

Source: E-view 7 system

The descriptive statistics of the major variables reveal that the EAL experienced a mean profit of birr 19.89018 and ranges between a minimum profit of birr 18.04747 and a maximum profit of birr 22.07755. The mean of ATK of the EAL over the 14 years is birr 14.56427 with a minimum value of birr 13.30115 and a maximum value of birr 15.64521. The mean of ASK of the EAL is 16.17947 with a minimum of 14.96045 and a maximum of birr 17.17693. The revenue has a mean of birr 22.86990 with the minimum birr 21.42409 and a maximum birr 24.48195. Finally mean of cost of EAL over the 14 operational years is birr 22.79319 with the range between minimum birr 21.49862 and maximum birr 24.38729.

Financial Performance for 7 years before Adoption of RBIA System

The financial performance trend of EAL before the adoption of RBIA system for 7 years (Jun 30, 2000/01 to 2006/07) is presented in the table.

	Variables						
Description	Profit	Available ton kilo meter	Available seat kilometer	Revenue	Cost		
Mean	18.88142	13.96656	15.63523	21.91892	21.86761		
Maximum	19.41121	14.54784	16.24533	22.65305	22.5614		
Minimum	18.04747	13.30115	14.96045	21.42409	21.49862		

 Table 2: Descriptive statistics of EAL operation before RBIA adoption

Source: E-view 7 system

Taking the companies operational activities before adoption of RBIA system, the EAL has mean profit of birr 18.88142 with the maximum value of birr 19.41121 and the minimum value of birr 18.04747.

ASK has mean value of birr 15.63523 with range between minimum birr 14.96045 and maximum value of birr 16.24533. ATK also reveals a mean value of birr 13.96656 with the range between minimum value of birr 13.30115 and maximum value of birr 14.54784.



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The EAL reported a mean revenue of birr 21.91892 with the range between the minimum value of birr 21.42409 and maximum value of birr 22.65305. Cost also accounts for a mean of birr 21.8671 with the minimum value of birr 21.49862 and maximum value of birr 22.5614 before adoption of RBIA system.

Financial Performance for 7 years after Adoption of RBIA System

The financial performance trends of EAL after the adoption of RBIA system for 7 years (Jun 30 2007/08 to 2013/14) is presented in the following table.

Table 5. Descriptive statistics of EAL operation after adoption of RDIA						
Description	Variables					
		Available ton	Available seat			
	Profit	kilometer	kilometer	Revenue	Cost	
Mean	20.89895	15.16197	16.72371	23.82088	23.71876	
Maximum	22.07755	15.64521	17.17693	24.48195	24.38729	
Minimum	19.83896	14.68078	16.32856	22.9424	22.84784	

 Table 3: Descriptive statistics of EAL operation after adoption of RBIA

Source: Eview 7 system.

After the adoption of RBIA system, the study identified that the mean profit is birr 20.89895 with a maximum profit of birr 22.07755 and a minimum profit of birr 19.83896.

ATK accounts the mean value of birr 15.16197 with the minimum value of birr 14.68078 and maximum value of birr 15.64521. ASK also estimates a mean value of birr 16.72371 with the range between minimum value of birr 16.32856 and maximum value of birr 17.17693.

The mean revenue is birr 23.82088 and has a minimum value of birr 22.9424 with the maximum value of birr 24.48195. Cost accounted for the mean value of birr 23.71876 with range between minimum value of birr 22.84784 and the maximum value of birr 24.38729.

Financial Performance before and after adoption of RBIA system

After the values of major financial performance variables were discussed in relation to before and after adoption of RBIA system, the study investigated the positive net difference between major variables as depicted in the table.

Descriptions	Variables						
(after less before RBIA		Available seat Available ton					
system)	Profit	kilometer	kilometer	Revenue	Cost		
Mean	2.01753	1.08848	1.19541	1.90196	1.82589		
Maximum	2.66634	1.36811	1.37963	1.8289	1.85115		
Minimum	1.79149	0.9316	1.09737	1.51831	1.34922		

 Table 4: Descriptive statistical difference of major variables

Source: Eview 7 system

As depicted in the above table, the mean, maximum and minimum have the value of positive signs for all financial performance indicators with respect to the time before and after RBIA system. Therefore, it is reasonable to conclude that, adoption of RBIA system has improved financial performance. In this



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case, it is not believed that only RBIA system has improved the financial performance but it was among other strategies employed by the EAL management. In other word, it supports contingency theory, that the results obtained other complementary variables are combined as an alignment with organizational culture and company's long-term strategy.

The impact of RBIA system, ATK, ASK, Revenue and Cost on the Profit

Dependent variable was the profit, and the independent variables were ATK, ASK, revenue, cost and RBIA as dummy variable as depicted in the table.

Dependent variable is the natural logarithm of a company profit

Table 5. Regression result					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
Constant	7.789140	11.23918	0.693034	0.0579	
Available ton kilometer	2.722214	4.663040	0.583785	0.0855	
Available seat kilometer	-3.298498	4.312494	-0.764870	0.2169	
Revenue	4.379886	7.249483	0.604165	0.0725	
Cost	-3.263151	6.291347	-0.518673	0.1780	
RBIADUMY	0.653957	0.834707	0.783469	0.0408	
R-squared		0.85720)7		
Adjusted R-squared		0.76796	52		
Prob(F-statistic)		0.00012	28		

Table	5:	Regression	result
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Source: Eview 7 system

As depicted in the table, RBIA has a positive coefficient and significantly affected profit at five percent level of confidence interval.

ATK has the coefficient of 2.722214 which indicates that the ATK has positive impact on profit. In addition, ASK has the coefficient of 3.298498 (table 5) which indicates that the ASK has negative impact on profit.

The revenue has the coefficient of 4.379886 which implies that the revenue has positively affected the profit. In addition, Cost has a coefficient of 3.263151 that shows the cost has negatively affected the profit.

Data Analysis, Discussions and Conclusions

Financial performance of 7 years before adoption of RBIA system

Taking the companies operational activities of 7 years before adoption of RBIA system, the EAL has mean profit of birr 18.88142 with the maximum value of birr 19.41121 and the minimum profit value of birr 18.04747 (table 2). This is below average financial performance that the EAL has generated for the last 14 years as the mean of profit is 19.89018 (see table1). In relation to this, empirical studies reveal that traditional audit approach has not improved the financial performance. Mahmoud Hematfar and Mohsen Hemmati (2013) stated that traditional audit has less value added to financial performance due to lack of trust and confidence by users than risk based audit system. In addition, Nahwera Mercy (2012) stated that internal audit function without risk based audit has inadequate contribution to the financial performances of the companies.



ASK of 7 years before adoption of RBIA system has mean value of birr 15.63523 with minimum value of birr 14.96045 and maximum birr 16.24533. This indicated that, mean of ASK were below the average of birr 16.17947 that the EAL has performed for the 14 years.

ATK of 7 years before adoption of RBIA system reveals a mean of birr 13.96656 with the range between minimum of birr 13.30115 and maximum of birr 14.54784 (table 2). This is below average as compared with mean of birr 14.56427 that the EAL has generated for the 14 years (table 1).

Revenue of the 7 years before adoption of RBIA system reveals a mean of birr 21.91892 with the range between the minimum value of birr 21.42409 and maximum value of birr 22.65305 (table 2). The EAL has reported revenue below average as compared with mean of birr 22.86990 that it generated for the 14 years (table 1).

Cost of 7 years before adoption of RBIA system has a mean of birr 21.8671 with the minimum value of birr 21.49862 and maximum value of birr 22.5614 (table 2). The cost of the EAL is reported below average as compared with its mean of birr 22.79319 (table 1) the EAL has experienced for the 14 years.

Financial performance of 7 years after adoption and comparison with before adoption of RBIA system

Taking the companies operational activities of 7 years after adoption of RBIA system, the EAL has mean profit of birr 20.89895 with the maximum of birr 22.07755 and the minimum profit of birr 19.83896 (table 3). This is above the financial performance that the EAL has generated for the last 14 years as compared with the mean of profit is birr 19.89018 (table 1). In addition, the mean, minimum and maximum profit after adoption of RBIA system was higher than before adoption of RBIA system which is the mean of birr 18.88142, maximum of birr 19.41121 and minimum of birr 18.04747 (table 2). Thus, the adoption of RBIA system improved financial performance. The empirical findings by Al-Mazrooei (2007) and Al-Tamimi (2002) highlighted that; UAE firms 'are efficient in internal auditing. Drzik (1995) stated that, firms' Administration Risk based audit Survey showed that large firms' in the US had made substantial progress in their financial performance. The result also supports Mutua Virginia Kasiva (2010) who was conducted research on the impact of Risk based audit on financial performance and concludes that, RBIA practices have significantly improved financial performance. ASK of 7 years after adoption of RBIA system has mean value of 16.72371 with minimum of birr 16.32856 and maximum of birr 17.17693 (table 3). ASK performances after adoption of RBIA system was above average as compared with ASK mean of birr 16.17947 that the EAL has performed for 14 years (table 1). In addition, ASK performance of 7 year after adoption of RBIA system is higher than before 7 year adoption of RBIA system with mean of birr 15.63523 that the EAL has performed (table 2). This requires the EAL to efficiently utilize its capacity since excess capacity can lead to reduced margins due to higher fixed costs. So, increase in capacity is positive performance only if it's supported by adequate rise in demand for air travel (passengers) (http://marketrealist.com).

ATK of 7 years after adoption of RBIA system reveals a mean value of 15.16197 with minimum of birr 14.68078 and maximum of birr 15.64521 (table 3). The performance of ATK reveals above average as compared with mean of birr 14.56427 that the EAL has generated for the 14 years (table 1). In addition, ATK performance after adoption of RBIA system was higher than before adoption of mean of birr 13.96656 that the EAL has performed (table 2).



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Revenue of the 7 years after adoption of RBIA system reveals a mean of birr 23.82088, minimum of birr 22.9424 and maximum of birr 24.48195 (table 3). The EAL has reported revenue higher than average as compared with mean birr 22.86990 that it generated for the 14 years (table 1). In addition, revenue performances of 7 years after adoption of RBIA system was higher as compared with before 7 years adoption of RBIA system for which mean of birr 21.91892 was performed (table 2).

Cost of 7 years after adoption of RBIA system has a mean of birr 23.71876 with the minimum value of birr 22.84784 and maximum value of birr 24.38729 (table 3). The cost of the EAL reported higher than average as compared with its mean of birr 22.79319 performed for 14 years (table 1). In addition, cost incurred for 7 years after adoption of RBIA system is higher than the cost incurred for 7 years before adoption of RBIA system (see table 2). This needs EAL to emphasis on reducing extra costs which are not related with its critical success factor. In relation to this, Schefczyk (1993), Truitt and Haynes (1994), Oum, T.H. and C. Yu, (1995), (2004, 2005) and Sjiogren and Soderberg (2011) were noted that airlines managers should realize high productivity by reducing asset size and costs which are not related with critical success factor of airlines operation.

Impact of RBIA system, ATK, ASK, Revenue and Cost on profit

The investigation revealed that RBIA system improved profit at 0.653957 (table 5). This indicated that the companies profit was increased by 0.653957 due to adoption of RBIA system. According to IIA (2004), RBIA improves performance of the companies through providing constructive assurance to strengthen the internal control, risk management and governance processes. Thus, Mutua Virginia Kasiva (2010), Silvia Popescu & Abdelnaser Omran (2011), Kasiva (2012) and Nahwera Mercy (2012) founded that RBIA system improves financial performances of the companies.

ATK has the coefficient of 2.7222140 (table 5) which indicates that the ATK has positive impact on profit. This means as the ATK increased, the profit was increased by 2.7222140. ATK means overall capacity measured in tones available for carriage of passengers and cargo multiplied by the distance flown. Hence, the positive relationship between ATK and profit indicates that the enterprise has effectively using the planes for cargo services.

From the regression result the ASK has coefficients of -3.298498 (table 5) which indicates that the ASK is negatively affected the profit. In this case, the ASK means passenger seat capacity measured in seats available multiplied by flight distance. Hence, as the ASK increases the profit was reduced by 3.298498 which indicates that, airplanes flown long distance without having adequate passengers. This supports market realist view that is shortage of seats will often result in higher airfare, excess capacity can lead to reduced margins due to higher fixed costs. So, increase in capacity is positive only if it's supported by adequate rise in demand for air travel (http://marketrealist.com).

The revenue has the coefficient of 4.379886 which implies that the revenue has positively affected the profit. In this case, revenue is addition of revenue passenger kilometer (RPK) and revenue tone kilometer (RTK). Hence, as the revenue increases, the profit would positively change at rete of 4.379886.

Cost has a coefficient of -3.263151 which show that the cost has negatively affected the profit. This indicated that as the cost increased, the profit of the enterprise was decreased at the rate of -3.263151 which support the natural relationship between cost and profit. Thus, the top management of the EAL has to emphasis on the economical utilization of operating cost.



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Major Findings and Recommendations Major Findings

- 1) Statistical results revealed that, the major financial performance factors (revenue, ATK, and profit) of EAL were improved after the adoption of RBIA system. However, before 7 years of adoption of RBIA system, the performance of revenue, ATK, and profit have been below average that the EAL has performed for 7 years after the adoption of RBIA system.
- 2) The regression result shows that RBIA system has improved profit at 0.653957 within 5% confidence of interval. Analytically, effective implementation of risk oriented audit in EAL operational process improved the performance at 0.653957.
- 3) The regression result investigated that the available tone kilometer for cargo services has significantly improved the profit at 2.722214 within 10% confidence of interval. It revealed that the use of planes for cargo services increases the performance of the EAL at 2.722214.
- 4) The statistical result reveals that ASK after adoption of RBIA system with mean of birr 16.72371 is higher than before adoption of RBIA system with mean of birr 15.63523. However, in the regression result, ASK has negatively affected the profit at 3.263151.

Recommendations

- 1. To adopt appropriate strategies together with RBIA system to improve its revenue, ATK and profit.
- 2. To emphasis on the adequacy and effectiveness of RBIA system to improve its profit.
- 3. To focus on business strategy of providing cargo services as the company's critical success factor to improve the financial performance.
- 4. To monitor the efficient utilization of its excess capacity of available seat kilometer for passengers and economical utilization of its operating costs since they adversely affect the profit.

Suggestion for Further study

The research was limited to investigate the impact of RBIA system on financial performance using pre and post financial performance of the EAL. Therefore, the researchers recommend for the further study to explore the relationship between the RBIA system and financial performance from 2014/15 onwards.

References

- 1 Al-Tamimi, H, (2002). Risk Management Practices: An Empirical Analysis of the UAE Commercial Microfinance Institutions. Finance India, Vol. 16.(3), pp. 1045-1057.
- 2 Al-Tamimi H, Al-Mazrooei M (2007) Banks Risk Management: A Comparison Study of UAE National and Foreign Banks, the Journal of Risk Finance, 8(4):394-409.
- 3 Chen, H.-J. (2003). The Relationship Between Corporate Governance And Risk-Taking. Journal of Accounting and Public Policy, Vol. 5 . pp.325-345.
- 4 Drzik (1995) CFO Survey: Moving towards Comprehensive Risk Management, Bank Management, 71:40.
- 5 Ethiopian Airlines (2000-2013) annual report of Ethiopian airlines;
- 6 Francis K. Kirogo, Solomon Ngahu, Juma Wagoki (2014) Effect of Risk-Based Audit on Financial Performance: A Survey of Insurance Companies in Nakuru Town, Kenya.
- 7 Goodwin-Stewart, J., & Kent, P. (2006). The use of internal audit by Australian companies. Managerial Auditin Journal, 81-101.
- 8 Griffiths, D. (2006, March 15). Risk Based Internal Auditing. Retrieved July 4, 2013, Hendriksen, E.S. (1982) Accounting Theory. Homewood, Illinois: Irwin.



- 9 Levine, D. I. and Toffel, M. W. (2008), Quality Management and Job Quality: How the ISO 9001 Standard for Quality Management Systems Affects Employees and Employers: Institute for Research on Labor and Employment- Working Paper Series, University of California, Berkeley.
- 10 Mahmoud Hematfar and Mohsen Hemmati (2013) A Comparison of Risk-Based and Traditional Auditing and their Effect on the Quality of Audit Reports.
- 11 IIA.(2001). Practice advisories for internal audit.
- 12 IIA. (2013, June 12). Risk based internal auditing/risk management/resources. Retrieved August 12, 2013, from Chartered Institute of Internal Auditors: http://www.iia.org.uk/resources/risk-management/risk-based-internal auditing/.
- 13 IIA. (2009). The role of internal auditing in Enterprise-wide risk management. UK: The Institute of Internal Auditors. IIA.
- 14 IIA, (2003). Risk Based Internal Auditing. Altamonte Springs: Institute of Internal Auditors Institute of Internal Auditors, I. (2000). Internal Auditing; Adding value across the board, Corporate Brochure. IIA.
- 15 Institute of Internal Auditors (2004) the Role of Internal Auditing in Enterprise-wide Risk Management
- 16 Keitany, J. L. (2000). The Internal Audit control function and its implication for risk assessment by the external auditor: A case of quoted companies.
- 17 Krishnamoorthy, G. (2002), "A multistage Approach to External Auditors" Evaluation of the Internal Audit Functions", Auditing: A Journal of Practice & Theory, 21(1),95-121.
- 18 Kunkel, J. (2004). The changing role of internal audit. Chain Store Age, September, pp.4-5. Lal, H. (2004). Re-engineering the ISO 9001:2000 certification process, ISO Management Systems, Vol. 4, pp.15-17.
- 19 Mugenda, O. & Mugenda , A (2003): Research Methods; Quantitative and Qualitative approaches; Nairobi, African center for technology studies.
- 20 Mutua virginia kasiva (2010 and 2012): Impact of risk based audit on financial performance in case of Kenya Commercial banks and Insurance companies .
- 21 Nahwera Mercy (2012). the internal audit function and financial performance of a public organization
- 22 Naser, K., Karbhari Y. and Mokhtar M. Z. (2004), Impact of ISO 9000 registration on company performance- Evidence from Malaysia. Managerial Auditing Journal, Vol. 19, No. 4, pp. 509-516.
- 23 O'Regan, D. (2002), "The CPA's transition to the world of internal auditing", The CPA Journal, August, pp.11-13.
- 24 Oum, T.H. and C. Yu, (1995), (2004) and (2005). Winning Airlines: Productivity and Cost Competitiveness of the World's Major Airlines. Kluwer Academic Publishers.
- 25 Schefczyk, M 1993, Operational performance of airlines: An extension of traditional measurement paradigms: Strategic Management Journal, Vol.14, pp.301-317.
- 26 Silvia Popescu & Abdelnaser Omran (2011) managing risk and internal auditing.
- 27 Soy, S.K. (1997), "The case study as a research method", unpublished paper, University of Texas at Austin,.
- 28 Tatiana Danescu, Anca Oltean (Muntean), and Raluca Sandru (2010): Risk based internal audit practices as value addition to the organizational performance.
- 29 Tamer Aksoy and Sezer Kahyaoglu (2013) Measuring the Internal Audit Performance: Tips for Succesful Implementation in Turkey.
- 30 Truitt, L.J, & Ray,H 1994, Evaluating service quality and productivity in the regional airline industry. Transportation Journal, Vol.33, Summer No.4.
- 31 Zaidah Zainal (2007) case study as the research method(http://marketrealist.com).