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Emmanuel Butera Mwesigye, Iravo Mike & Olive Karekezi Kemeirembe

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Influence of economic regulatory environment on the liberalization of the air transport industry in East Africa

[1*]Emmanuel Butera Mwesigye, [2]Iravo Mike & [3]Olive Karekezi Kemeirembe

[1*]PhD in Business Administration Candidate

[2]Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

[3]Lecturer, University of Kigali, Rwanda

***Email of the Corresponding Author:** emmanuelbutera@ymail.com

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Abstract

The study sought to examine the influence of economic regulatory environment on the liberalization of air transport industry in East Africa. Data were analysed using descriptive and multiple regression analyses to examine the effect of the economic regulatory environment on the air transport sector in east Africa. The results confirmed that there is interdependency of economic activities in EAC and of the services of air transport industry and thus the need to liberalize the industry. The study revealed that achieving air transport liberalization will increase profit margins of airline companies, facilitate effective common market, customs union and regional integration. The results confirmed that economic environment has a significant effect on liberalization. The study concluded that there is significant influence of the economic environment on the liberalization of the air transport industry in East Africa. Thus, economic environment positively affects the performance of air transport in East Africa. The study recommended that the East African countries needs to develop their economics mostly hotel facilities and tourism sector which can help to increase the movement of people.

Keywords: *Economic regulatory environment, liberalization*

1.1 Introduction

The air transport industry is one of the most important components of the world's transportation system that not only provide the major means of long-distance travel in the world, but its economic impacts on global and national economies is substantial (Oum & Zhang, 2010).

Additionally, due to the complexity of the general outlook of the air transport industry as witnessed through airports and the technological advancement of the industry as viewed through jet engines and air pollution, the air transport is therefore important. This is also due to the fact that there is the necessity to enhance the quality of the environment through promotion of sustainability in the development of the industry (Cristea, Hummels & Roberson, 2012).

African countries have witnessed the tremendous growth of the air transport industry as a crucial frontier for freight flows and international passenger transport. Through efficiency and availability of air transport services, an increase in competitiveness in the air industry in Africa has been witnessed. This has been through effectiveness in the opening of world markets resulting from enhanced regional integration (Ismaila, Warnock-Smith & Hubbard, 2014). Although the importance of efficient air transport is globally acknowledged, presence of non-physical barriers continues to act as an impediment to the expansion of air transport services in many African countries. These barriers arise from presence of restrictive regulatory arrangements that determine the manner in which various services are provided. Such barriers are the impetus for major aviation markets initiatives on liberalization of domestic as well as international regulatory approaches (Oum & Zhang, 2010).

Liberalization in the air transport industry is a result of preventing the negative impacts of restrictive regimes. Out of this, the aviation industry has continued to witness liberalization in both the domestic and international regulatory environments. An example is the chattering of the Yamoussoukro Decision (YD) by African countries in 1999 (AFDB, 2012). This was an umbrella initiative that aimed at consolidation of the liberalization wave in African aviation industry (Oum & Zhang, 2010). However, implementation of YD has not been fully effective since a number of challenges have been encountered. One such challenge is lack of adequate knowledge on the implementation process and the fear of the economic effect of the full implementation of YD on the African Aviation industry. If only its liberal provisions were fully implemented, the effort would lead to radical liberalization of the intra-African air transport market and create equal opportunities for all the African airline commercial transport systems (Schlumberger, 2010).

Most of the international air transport services in Africa are operated through bilateral agreements with other domestic and international aviation players (AFDB, 2012). This is restrictive in nature since it has imposed regulatory barriers on market access, capacity of air transport in terms of aircraft type and frequency and the ever-presence foreign ownership of the airlines. Restrictive regulatory control operates even on traffic lights, designation of the airline and fares. Most of these bilateral agreements are subjected to reciprocal exchange of rights which usually benefit the designated airlines of the partners in the bilateral agreements (AFCA, 2013).

Countries in the East African region have encountered several restrictions related to Bilateral Air Service Agreements (BASAs). The restrictions are related to accessibility of the market especially on the issue of granting fifth traffic rights that have made the industry inefficient. This is because the restrictions suppress competition via routes, size (Munene & Ikiara, 2012). Thus designated airlines cannot operate additional services beyond those specified in the BASAs. Some of the BASAs also require designated airlines to be substantively owned and effectively controlled by both parties (Abate, 2016). This tends to restrict foreign firms from

establishing airlines in the bilateral partner countries. The local ownership of airlines has negative effects on the domestic capital market in East Africa since the capital market is too small to provide sufficient equity for the development of a capital-intensive airline industry. Furthermore, foreign airlines are not allowed cabotage rights, thereby limiting competition in domestic markets to locally owned airlines (Irandu, 2008). These restrictions have had a profound effect on the way the industry has grown and evolved.

Regulation of air transport in East Africa is driven by the desire to ensure the protection of national flag carriers whose origin in East Africa. The collapse of the East African Community (EAC) in 1977 left the administration and regulation of civil aviation services to individual member countries. Liberation of air transport has significant impacts on two fronts; economic and environmental areas. In this paper, the focus of deliberations is the economic influence on the liberalization of the transport industry in East Africa. Since the industry has survived and expanded while this state of extremely poor profitability has persisted, it might be asked, what is the influence of the economic regulatory environment on the liberalization of the air transport industry in East Africa?

2.1 Liberalization of Air transport

As suggested by Winters (2004), liberalization as a concept refers to the process of relaxation of former restrictions, especially in social and economic fields. When viewed from the economic sphere, the term is basically used to denote economic liberalization specifically on trade or capital market. From the air transport industry, liberalization denotes opening up access to markets for airlines of other nationalities leading to the theory of 'open skies' (AFCA, 2013). Liberalization of air transport is a process that integrates gradual abolition of limitations on designation, capacity, frequency and setting of tariffs in the aviation industry. The purpose of the liberalization process is creation of efficiency in the structure of air transport that is modeled along the free market mechanisms where decisions are based on mutual association of supply and demand (ATA-WATS, 2014). In such instances, the national government has the obligation that is limited to provision of safety and security. Liberation of air transport has significant impacts on two fronts; economic and environmental areas. In this paper, the focus of deliberations is the economic influence on the liberalization of the transport industry in East Africa.

Liberalization is a concept that is normally complemented by other significant terms as deregulation and privatization. In the air transport industry, privatization focuses on the state of ownership of the sector from the bases of either government to the private sector. Similarly, liberalization is the focus on previous regulatory restrictions imposed by the government on the industry and is synonymous with deregulation (Surovitskikh & Lubbe, 2015). From the point of view of liberalization in the airline industry, there exists the concept of free market access where a given airline may fly from one country to another without punitive restrictions based on frequencies and capacity levels. This translates to an open sky policy that focuses on provision of at least 3rd, 4th and 5th freedom traffic lights that has no restrictions on type of equipment, frequency and capacity (Authority, 2014).

In the case of East Africa airlines, liberalization is crucial to galvanize the power of accessibility and participation in the global market. Liberation of the air transport industry in the East Africa

airlines has potential benefits of strengthening the regional market, integration of the region market and eventually the successful and effective participation of the regional airlines in the international airline market (Abate, 2016). However, for over 20 years, airlines in the East Africa region have encountered challenges of liberalization based on the Yamoussoukro Decision (Njoya, 2016). Other potential benefits for liberalization in the East Africa airlines include creation of efficiency leading to opening up of markets and freer market leading to higher level of efficiency in service provisions. Others include propensity to wider range of destinations and more frequent services (Surovitskikh & Lubbe, 2015).

2.2 Economic environment

The positive impact of economic factors as integral components of air transport industry liberalization in most parts of the world has recently received theoretical and empirical support in a number of studies. Njoya and Nikitas (2020) revealed that when tourism and export manufacturing sectors are highly developed, a need arises to liberalize the Air transport industry to facilitate trade. Tourism is now the biggest foreign exchange earner in most African countries as a result some nations have recognized the importance of tourism for their economy and have taken steps to set up an efficient tourism sector through liberalisation in the aviation sector. Without an efficient air transport system, it is almost impossible for a number of landlocked and geographically isolated developing nations to expand and sustain domestic and international tourism (O' Connell & Warnock-Smith, 2012).

Air transport occupies a central position in the long-haul tourism and that Air access is a necessary precondition for international tourism. The growing interdependence of aviation and international tourism have led to major investment in airport infrastructures in a number of African countries (for example, Kenya and Senegal) in recent years and that over the past few decades, necessary steps have been taken to lift restrictions on air transport on a worldwide scale (Winters, 2004). Further, the World Bank Policy Report noted that changes in the world economy including the dramatic increase in international flows of goods and services (globalization) demand efficient transportation services.

The speed and pattern of traffic growth has in the past been dictated more by government's willingness to loosen existing bilateral restrictions than by airlines' response to the market demand for air travel, with spill over effects for the benefits for other sectors of the economy. Competition generated by globalization has increasingly led users to demand faster, more reliable, more flexible air transportation services (Authority, 2014). These changes have given rise to increased demand, structural economic change, and new industrial economics which places enormous pressure on transportation systems to reform. The consequence of these developments is that the availability of air transport to the public at large has a profound effect on our way of life as it redefines the size of the world, making it relatively smaller (Abate, 2016).

There is a two-way relationship between air transportation and overall economy. It has been well recognised that air transport and logistics as transport services are so called derived demand. They are usually purchased as in puts or intermediate products for the consumption/ production of business or leisure, whereas cargo are shipped such that are consumed or processed in the destination (Winters, 2004). Therefore, the demand for transport services is

highly derived by the overall economy. Air transportation usage and economic activity are interdependent. Air transportation provides employment and enables certain economic activities which are dependent on the availability of air transportation services. The economy, in turn, drives the demand for air transportation services resulting in the feedback relationship (O' Connell & Warnock-Smith, 2012).

Capacity clause identifies the airline industry regime to determine the capacity of an agreed service. The capacity regime refers to the volume of traffic, frequency of service and/or aircraft type(s) (AFDB, 2012). Sorted from the most restrictive to the most liberal regime, three commonly used capacity clauses are: predetermination, Bermuda I and free determination. Predetermination requires that capacity is agreed prior to the service commencement; Bermuda I regime gives limited right to the airlines to set their capacities without a prior governmental approval and free determination finally leaves the capacity determination out of regulatory control.

According to InterVISTAS-EU (2009), there is considerable evidence that liberalization of international markets has provided substantial benefits for air passengers and the wider economy. One study of the European Union (EU) single aviation market found that it had greatly increased competition on many routes, had resulted in many new routes operating, and led to a 34 per cent decline in fares (Sinha, 2019). Another study found that liberalisation of the EU market had doubled the rate of growth in air traffic in the EU (Graham, 1998). Furthermore, other studies have demonstrated a link between increased air traffic and growth in employment and Gross Domestic Product (GDP). For example, a study by Bitzan (2013) estimated that each 10 per cent increase in international air services led to a 0.07 per cent increase in GDP.

The concept of liberalization is usually complemented by other concepts of; privatisation and deregulation. According to Irandu (2008), the term privatization refers to the transfer of ownership of the air industry from the public sector or government to the private sector, while liberalization is the relaxation of previous government restrictions in the industry. Holloway (1998) asserts that deregulation and liberalization are used interchangeably to refer to a deliberate policy of reducing state control over airline operations and allowing market forces to shape the airline industry. Also, when there is general economic growth where, tourism and export based industries and other resources are developed, there will be high demand for air transport services which eventually necessitates a need for air transport liberalization to facilitated investment in air transport industry. But where the level of economic growth is low such that tourism, export based industries and other resources are not developed, demand for Air transport services will also remain low and governments will not feel the pressure to liberalise the industry (Irandu, 2008).

3.1 Research methodology

The participants in the study consisted of management of Civil Aviation Authorities, Airline companies, and Airports authorities in four East African countries; Kenya, Rwanda, Tanzania, and Uganda. The target population was managements of four (4) Civil Aviation Authorities, three (3) Airports Authorities, and three (3) Airline Companies who included the Board of Directors, Executive Committees, senior managers, and middle managers. The study used a mixed-method design comprising of both descriptive quantitative and qualitative survey study

approaches. The descriptive research design was appropriate since it assisted in the articulation of the opinions of the management. Yamane (1967) formula was used to compute the sample size. The sample size was 230 participants.

4.0 Results and discussions of the study

4.1 Descriptive analysis results

4.1.1 Economic environment

This study examined the influence of economic regulatory environment on the liberalization of the air transport industry in East Africa. It has been revealed that when tourism and export manufacturing sectors are highly developed, a need arises to liberalize the air transport industry to facilitate trade. Consequently, there is a two-way relationship between air transportation and overall economy. It has been well recognized that air transport and logistics as transport services are so called derived demand. The descriptive statistics of interdependency of economic activities and liberalization of air transport is depicted in Table 1

Table 1: Interdependency of economic activities and liberalization of air transport

Economic Environment (EE)	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	Std. Deviation
EE1	1.4	7.2	17.4	66.7	7.2	3.71	0.769
EE2	0	4.3	13	40.6	42	4.203	0.833
EE3	4.3	0	2.9	62.3	30.4	4.145	0.845
EE4	0	0	11.6	65.2	23.2	4.116	0.582
EE5	0	0	2.9	69.6	27.5	4.246	0.497
EE6	0	2.9	7.2	78.3	11.6	3.986	0.556

The results from Table 1 indicates that more than two third (66.7%) and 7.2% of respondents disagreed and strongly disagreed respectively to the statement that the air transport liberalization is very essential to support economic activity growth. More than 80% of respondents supported and agreed that effective liberalization is bound to bring about growth of tourism in East Africa countries. Further, the geographical context of East Africa states would motivate the liberalization of air transport and increase mobility and connectivity of the region with rest of the world, about 62% of respondents agreed and 30.4% strongly agreed that the fact that some of EAC are landlocked countries can be a motivating fact to develop air services which would spurs countries' economies and facilitate liberalization of air transport. Moreover, 65.2% agreed and 23.2% strongly agreed that liberalization of air transport would spurs some economic activities such as travel agencies, restaurants, tour guide agencies which can facilitate the general public transport development. Besides, 69.6% of respondents revealed that liberalization of air transport will help to increase profit of airline companies in East Africa while 27.5% strongly agreed with this statement. Furthermore, the majority (78.3%) agreed that liberalization would influence the success of common market initiative, customs union and regional integration. According to the study by Authority (2014), the results are in line with theories and support the theory that there is an interdependency of economic activities and liberalization of air transport.

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4.1.2 Market entry restriction, fares and tariffs

The study sought to examine the influence of market restriction and fares in air transport on liberalization of air transport industry. One of the factors, which make the air transport more accessible by many people, is the fare. Very expensive fares will lead to low accessibility of air services and hinder liberalization (Njoya, 2016). The descriptive statistics of restrictions and fares in air transport is shown in Table 2.

Table 2: Descriptive statistics of restrictions and fares in air transport

Economic Environment (EE)	Strongly Disagree (%)	Disagree (%)	Not sure (%)	Agree (%)	Strongly Agree (%)	Mean	Std. Deviation
EE7	0.0	8.7	17.4	68.1	5.8	3.710	0.709
EE8	1.4	8.7	20.3	47.8	21.7	3.797	0.933
EE9	1.4	8.7	0.0	55.1	34.8	4.130	0.906
EE10	0.0	7.2	2.9	65.2	24.6	4.072	0.754
EE11	0.0	0.0	5.8	85.5	8.7	4.029	0.382
EE12	0.0	0.0	8.7	66.7	24.6	4.159	0.559
EE13	1.4	4.3	8.7	30.4	55.1	4.333	0.918

The findings in Table 2 show that 68.1% of the participants agreed that economic regulatory environment in air transport in EAC takes into consideration the rationale of the economic regulation. However, 47.8 % respondents agreed that fares in East Africa countries are affordable while 34.8% strongly agreed with the statement. On the other hand, almost all respondents (89.8%) showed that there is market imperfection in the air transport sector, which is resulting in the market restrictions and protectionism among the EAC, which is pointed out among the most economic challenge, which hinders the liberalization of the air transport industry in the region.

Moreover, 65.2% of the respondent's agreed and 24.6% strongly agreed that liberalization is hindered by market restrictions. The majority (85.5%) of respondents agreed that starting an airline in east Africa is limited only to nationals which limit expansion of investment. In addition to that 66.6% of respondents agreed and 24.6% strongly agreed that the cost of investment is very high which make industry lagging behind and make it difficult to liberalize. The majority (85.5%) of respondents agreed that the air transport services would be more usable by people once fares are made cheap, increased number of airlines and airports. These results complement those of O'Connell and Warnock-Smith (2012) opinion that for developing air transport industry, it requires huge investment. The Investment in air transport sector is limited also by restriction imposed in starting Airlines companies for non-national citizens.

4.1.3 Resource mobilization, investments and incentives

The study examined the effect of provision of economic incentive and influence of many players in the air transport industry in East Africa. The descriptive statistics of economic incentives and investments is presented in Table 3

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Table 3: Economic incentives and investments

Economic Environment (EE)	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	Std. deviation
EE14	0	10.1	58	27.5	4.3	3.261	0.7
EE15	0	2.9	14.5	75.4	7.2	3.87	0.567
EE16	0	5.8	1.4	79.7	13	4	0.618
EE17	1.4	7.2	21.7	49.3	20.3	3.797	0.901
EE18	0	0	0	73.9	26.1	4.261	0.442

The results from Table 3 show that more than a half (58.0%) was not sure if the governments provide tax incentives on aviation infrastructure investments. However, about 27% respondents agreed that tax incentives are provided for aviation investments projects. The findings revealed that 75.4% of the respondents agreed that introduction of new competition by other players has an influence on liberalization while 14.5% were not sure about this statement. Moreover, 79.7% of the respondents agreed that air transport market access by many private players influences air liberalization. The results support Surovitskikh and Lubbe (2015) statement that reveals that limiting investments for Airline Company's start up for nationals would slow the full liberalization and impede economic activity development as well.

4.2 Regression analysis

4.2.1 Assumptions of Ordinary Least Squares (OLS)

Ordinary Least Squares (OLS) was used to analyze the effect of economic factors on the liberalization of air transport in East Africa countries. To verify the OLS assumptions, the study checked for outliers through normality assumption, multicollinearity, and Heteroscedasticity tests.

4.2.2.1 Normality assumption

The assumption of normality needs to be checked for many statistical procedures, namely parametric tests because their validity depends on it. Cunningham (2008) stated that an index smaller than an absolute value of 2.0 for skewness and an absolute value of 7.0 is the least violation of the assumption of normality. Table 4 shows the results of the normality test for the study variables.

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Table 4: Normality test

Variables		Statistic	Std. Error
Economic environment	Mean	3.9903	.03844
	Median	4.0556	
	Std. Deviation	.31928	
	Skewness	-1.422	.289
	Kurtosis	1.974	.570
Liberalization	Mean	1.9928	.05929
	Median	2.0000	
	Std. Deviation	.49254	
	Skewness	2.192	.289
	Kurtosis	6.530	.570

The values of skewness for most of the variables are between -1 and +1 while others range between -1.6 and +2.2 and less than 7 for kurtosis as shown in Table 4. This implies that the study variables are moderately satisfied with the normality assumption

4.2.2.2 Multicollinearity test

Variance Inflation Factor (VIF) was used to check for multicollinearity between the independent variables. According to Kennedy (1992), a VIF greater than 10 indicates harmful collinearity. Table 5 presents the multicollinearity results.

Table 5: Multicollinearity Testing

Model	Collinearity Statistics	
	Tolerance	VIF
Economic environment	0.949	1.054

The results from Table 5 show the absence of multicollinearity because all tolerance values are greater than 0.1 and all VIF values are less than 10. Thus there is no multicollinearity among predictor variables and hence all variables were used in multiple regression models.

4.2.2.3 Heteroscedasticity

Heteroscedasticity is a situation where the variability of a variable is unequal across the range of values of a second variable that predicts it (Vinod, 2008). In this study Heteroscedasticity was tested by performing the Breuch-pagan/cook-Weisberg test. Breusch-Pagan/Cook-Weisberg test the null hypothesis that the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables (Vinod, 2008). Table 6 shows that heteroscedasticity test results

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Table 6: Heteroscedasticity Test

Ho	Variables	Chi2(3)	Prob > Chi2
Constant Variance	Independent variable	1.057	0.304

Table 6 shows that the constant variance (Chi-square= 1.057) is insignificant (p = 0.304). Thus the study failed to reject the null hypothesis and concluded that the error variance is equal thus Heteroscedasticity was not a problem in the data.

4.3 Correlation of variables

A correlation indicates that as one variable changes in value, the other variable tends to change in a specific direction. The correlation results are presented in Table 7

Table 7: Correlation analysis

		Liberalization	Economic environment
Liberalization	Pearson Correlation	1	.475**
	Sig. (2-tailed)		.000
	N	138	138
Economic environment	Pearson Correlation	.475**	1
	Sig. (2-tailed)	.000	
	N	138	138

Table 7 shows the presence of a strong correlation coefficient (r=0.475) between the economic environment and air transport liberalization. Moreover, the p values show that this correlation has a statistical significance considering that the p-value is less than a 5% level of significance. This implied that a sound economic environment directly influences the positive change in achieving air transport liberalization.

4.4 Simple linear regression for the independent variable

Model summary

The simple regression analysis was performed to examine the individual effect of economic environment on liberalization of air transport and be able to show if the improvement in air liberalization can be explained by the change in economic environment. The model summary of regression of economic environment is presented in Table 8

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Table 8: Model summary of Regression of economic environment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475[a]	.225	.220	.35018

Predictors: (Constant), Economic environment

Table 8 shows the coefficient of determination (R Square) of 0.225 which indicates that only 22.5% change in air liberalization in east Africa can be explained by the change in economic environment

Analysis of variance

Table 9: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.854	1	4.854	39.580[b]	.000
	Residual	16.677	136	.123		
	Total	21.531	137			

a. Dependent Variable: Liberalization

The results from ANOVA test shown in Table 9 indicate economic environment has a significant effect on liberalization of air transport in East Africa. The p value is greater than 5% level of significance (0.00<0.05) therefore we conclude that the economic environment has a significant effect on liberalization of air transport in East Africa. Therefore, the study rejects the null hypothesis implying that economic factors has effect on air liberalization, and we conclude that economic environment has direct effect on air liberalization in East Africa. The study showed that there some economic motive which can stimulates the development of air transport in East Africa such as landlocked constrains, development of tourism, and growing economic activities in general. Despite all economic motives, the sector is not yet fully liberalized.

Interpretation of coefficient of regression

The Regression coefficients for simple regression model are depicted in Table 10 below.

Table 10: Regression coefficients for simple regression model

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		Sig.
(Constant)	3.322	.192		7.271	.000
Economic environment	.293	.047	.475	.291	.000

a. Dependent Variable: Liberalization

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The results of Table 10 shows that the economic environment have a positive and significant effect on liberalization of (B=0.293, t=6.291, p<.05). The regression equation obtained from this output is: Liberalization = 3.322 + 0.293 economic environment. The regression coefficient for economic environment is 0.293. This indicates that a unit increase in economic environment would result in 29.3% increase in Liberalization.

4.5 Multiple regression analysis

The survey data used for multiple regression models have the independent variable as the economic environment and the dependent variable is the liberalization of air transport. The multiple regressions were conducted to determine if there a statistically significant effect of independent variables on the liberalization of air transport in East Africa. The overall model is summarized in Table 11

Table 11: Overall model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661[a]	.437	.420	.30180

The results in Table 11 show that the regression model has a large coefficient of determination of 43.7% of the change independent variables that can be explained by the change in the predictor variables used in the model. This implied that 43.7% of the liberalization of air transport can be explained by the change in the economic environment.

Analysis of variance

The analysis of variance is presented is Table 12

Table 12: ANOVA Table for the overall model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.417	4	2.354	25.847[b]	.000
	Residual	12.114	133	.091		
	Total	21.531	137			

a. Dependent Variable: Liberalization
Predictors: (Constant), Economic environment

The results of ANOVA tests show that the regression model is significant at 5% level of significance. Besides, the regression coefficients were individually tested to check whether the independent variable had a significant effect on the dependent variable.

Fitted model

The statistics in Table 13 shows the fitted model with all independent variables

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Table 13: The fitted model with all independent variables

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	3.682	.232		15.858	.000
Economic environment	.291	.068	.327	4.305	.000

a. Dependent Variable: Liberalization

The Regression equation was as follows:

Y=3.682+0.291X1

With Y: Liberalization of air transport

X1: Economic environment

The model shows that the independent variable (economic environment) has a coefficient which is different from zero and a positive relationship with the liberalization of air transport. The positive coefficient (0.291) suggests that there is a positive relationship between the economic environment and the liberalization of air transport. This means that improvement in the economic environment would also lead to a positive change of 29.1% to the liberalization of air transport. The analysis of t-test and p values for the significance of regression coefficients for the economic environment was statistically significant (p-value was less than 5%).

5.1 Conclusions

Results of ANOVA test revealed that economic environment had significant effect on liberalization of air transport in the East Africa region. The study rejected the null hypothesis and concluded that there is significant relationship between economic regulations and environment on air transport liberalization. Thus, a conclusion was made that economic environment positively affects the performance of air transport in East Africa.

6.1 Recommendations

The recommendations were made regarding the influence of the economic environment on the liberalization of the air transport industry. The results of the study indicated that economic development and regional integration among East Africa countries provide an impetus and stimulus to promote air transport liberalization. The improvement in regional cooperation and putting enough efforts in regional market will ease the movement of goods/services and increases the movement of people. The study recommended that the East African countries needs to develop their economics mostly hotel facilities and tourism sector which can help to increase the movement of people. Having flexible and affordable tariff fares is also very important to keep air transport successful in East Africa region.

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