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FACTORS INFLUENCING INDIAN FIRMS DECISION MAKING IN FOREIGN DIRECT INVESTMENT IN AFRICA

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ABSTRACT

India's economic progress and relations with other developing regions have received much attention, particularly the way in which Indo-African relations have evolved since 2000. This paper aims to put Indian FDI in Africa into perspective and provide some answers on the nature and possible impact of these flows to the continent. The study utilized the international typology offered by Dunning OLI paradigm to identify the important of Location Specific Advantages and how these advantages leads to selection of location for investment purposes by investors. The study findings demonstrated that potential market growth, market opportunities and consumer base are the important indicated Indian firms targets Africa to seek new and unexplored markets of Africa. Competitiveness climate is important determinant along with economies of scale, investment incentives and availability of natural resources.

Keywords: FDI, India, Multinational companies, Indo-Afro relations, Developing countries, OLI eclectic paradigm, African nations

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Introduction

Bulk of the Indian investment has been directed towards African continent since 2005 because of overwhelming Indo-Africa relations (business and trade). The diplomatic relations between India and African nations have paved the way for a new era of economic cooperation and bilateral trade. It is obvious that Indo-Afro nations are emerging markets and proved out their potential for future economic growth. Furthermore, India intensified economic links with African continent because of initiatives like "Focus Africa Programme" followed by annual summits once in five years. Thus in this context India's increasing importance as a global player and its enhanced OFDI level to Africa needs analysis. The FDI inflow into African nations has increased rapidly and it will play significant role for African nations economy in the future as well. Thus at this crucial juncture, the question arises which factors have significant influence on Indian firms taking decision for making FDI in African nations. There is a need to study the location specific determinants which attracts Indian firms investment towards African continent



.To capture the main determinants holistic framework named as 'OLI paradigm' , given by Dunning in 1988 has been employed to identify the location specific variables as FDI take place only due to the presence of comparative advantage of host country. The paper is further organized in different sections. The next section gives overview of past literature and framed the hypotheses of the study. The third section presents the research methodology including research objectives, the sample data, data sources and research instruments. Furthermore it entails hypothesis, scale construction, methods and procedures used in the data collection. The fourth section provides results and discussion .Final section of the study focuses on conclusion, limitation and further research.

2. Review of Literature and Hypothesis

Urata et al., (2000) studied the host country specific factors which attracts the Japanese FDI. An analysis identified significant supply side factors attracting firms to invest at particular location includes availability of low cost labor, macroeconomic stability ,quality infrastructure, good governance of host country and demand factors include large market size. Firm considers host countries' market conditions before making investments. For Thailand FDI inflows into the host countries' market demand, trade openness policies and FDI openness policies are the significant factors that influence the level of direct investment from Thailand (Cheewatrakoolpong & Boonprakaikawe (2015). Pradhan (2005) pointed out the changing patterns of Indian OFDI from period 1975 to 2001. From period 1975-2001, the changing pattern of Outward FDI in different three waves having various characteristics of investment. Indian firms were trying to expand their business in new markets and in different sectors. The first wave of O-FDI (1975-1990) Indian investments was limited to developing countries like Egypt, Kenya, Senegal, and Nigeria. During Second wave (1991-2000) investment are considerably increased as firms from all sectors of the economy begun to invest abroad largely focused on developed countries. The main

motive behind expansion of Indian TNC is not limited to market seeking outward FDI but also includes to gain access to strategic assets and skills overseas. Furthermore Brada *et al.*, (2006) noticed while analyzing FDI in Transition economies (European economies) firms generally invest in those countries which are politically sound. With the help of regression method they found the relation between FDI inflows and country characteristics was used to predict the future flows. The study also suggested that there is positive effect of political stability on FDI and the FDI flows .(Buckley *et al.*, 2006,)investigated the host specific determinants of Chinese outward direct investment and by evaluating the three types of factors such as capital market imperfections, ownership based advantages and institutional factors. Study is conducted for the period of 1984 to 2004 and host specific variables are considered such as market size, political stability, and geographic proximity and natural resources. Chinese OFDI has positive related to political risk, cultural proximity and host country market size. Duanmu (2009) analyzed the locational determinants of outflows from India and China and conducted comparative study between Chinese and Indian FDI .Using panel data, various host country characteristic are studied like GDP, GDP per capita, GDP growth, Trade openness, Trade intensity, Exchange rate, Corruption index, Political index, Inflation. Study have found that Indian and Chinese investment are attracted towards countries with large market size, low GDP growth, high volume of imports from China and India and low corporate tax rates. China and India FDI attracts towards countries having large market size. This reveals FDI from the two countries is market seeking. He concluded that open economic regimes, depreciated host currency, and better institutional environment leads to the promotion of Chinese FDI but these factors are not significant for Indian FDI. (Anwar and Mughal, 2011; Fratianni & Oh, 2009) Indian direct investment are located in those nations where there is a significant presence of Indian diaspora and bilateral investment treaties (BITs) as well .An analysis of BITs with Europe and presence of Indian diaspora in developed nations of Asia-pacific have a positive association with volume of Indian OFDI. Gammeltoft *et al.*, (2010) presented the trends, patterns and drivers of outflows from emerging economies Brazil, India, China, Russia.

The conceptual framework of the study is based on review of literature and related studies previously conducted. the main purpose is to investigate the importance of locational determinants which led Indian firms to invest in African nations that lead to FDI in African market by Indian multinational companies. To test the main hypotheses, sub hypotheses were formed which are as under:

3. Research Methods

3.1. Survey Instrument

Self-structured questionnaire is designed to collect the primary data from 105 sampled Indian firms. The self-administered questionnaire was framed the basis of extensive review of prior literature and semi-structured interviews conducted with the middle level managers, experts in the pertinent field. The pretesting was conducted to ensure the validity of the questionnaire and results were taken with the care since the sample size of pilot testing is small in number. According to Pilot and Hungler (1993), a pilot testing should be established with the same degree of rigor as the major study to enable the researcher to note the inadequacies that will appear in the main study For the test of reliability, this study used the Cronbach's alpha to measure the internal reliability of the instrument. To check the reliability of the questionnaire pilot testing was done on the ten Indian firms based on convenience sampling. because only good measurement scale must be valid and reliable.

3.2. Sample and Data collection

These hypotheses are tested with the assistance of firm level data collected from 105 sample firms from 38 African nations. From 2007- 2014, there were 908 Indian firms having records in Reserve Bank of India (Overseas investment monthly data releases). Twenty- four variables in the survey questionnaire were grouped into seven factors. To fulfill the objective, 908 firms were used as population of the survey having 95 percent confidence level with 5 percent of sampling error was used as criteria for selecting sample size as described by Bartlett et al. in 2001. 105 companies were selected as sample size. The survey was conducted during November 2015 to March, 2016. To achieve target sample size of 105 firms, questionnaire was sent to total 282 firms (by e-mail, telephonic appointment, in-person visits). The data analysis was carried out to identify the important factors contributing FDI activity in African market by employing SPSS software version 16 to get the desired results. The descriptive analysis included factor analysis, mean and standard deviation to figure out significant determinants. To test the hypotheses, inferential statistics namely correlation analysis and multiple regression was employed to identify which factor from the derived factors have significant influence on Indian companies FDI decision in African nations.

4. Results and Discussions

4.1 General information of company

Table 1.1: Characteristics of the sample firms

Characteristics	N	Percent (%)
<i>Age of Firm (year)</i>		
0-20	72	68.6
21-40j	26	24.8
41-60	4	3.8
Above 61	3	2.9
<i>Number of Employees</i>		
Up to 100	87	82.9
101-500	8	7.6
501-2000	4	3.8
Above 2000	6	5.7
<i>Number of Product lines</i>		
Small (1-4 lines)	51	48.6
Moderate (5-8 lines)	42	40

Large (more than 8 lines)	12	11.4
<i>Total sales (million)</i>		
1-10	9	8.6
11-20	9	8.6
21-30	32	30.5
31-40	38	36.2
More than 40	17	16.2
<i>Host country</i>		
North Africa	7	5.8
East Africa	73	60.8
Central Africa	4	3.3
West Africa	13	10.8
South Africa	8	6.7
<i>Ownership Pattern</i>		
WOS	72	68.6
JV	33	31.4
<i>International Experience (year)</i>		
1-5	27	25.7
6-10	47	44.8
11-15	25	23.8
16-20	3	2.9
More than 20 years	3	2.9
<i>International experience in African market (year)</i>		
1-5	66	62.9
6-10	22	21
11-15	8	7.6
16-20	5	4.8
More than 20	4	3.8
<i>Industry of the Firm</i>		
Agriculture, Hunting, Forestry and Fishing Sector	13	10.8
Electricity, Gas, Water Sector	1	.8
Community, Social and personal services Sector	10	8.3
Construction Sector	15	12.5
Financial, Insurance, Real estate and business service Sector	14	11.7
Manufacturing Sector	33	27.5
Transport, Storage and communication services Sector	5	4.2
Wholesale, retail trade, Restaurants and hotels Sector	12	10.0
Miscellaneous Sector	2	1.7
Total	105	

Source: Authors calculations

4.2 Factor analysis of location specific determinants

Factor analysis has been performed to identify the key factors influencing FDI in African nations by Indian companies. This statistical technique grouped the 24 individual statements into seven key factors influencing FDI. The respondents were asked to rate the importance of twenty-four locational determinants for African market given in survey questionnaire (See Annexure). Using Microsoft excel and Statistical Programme for Social Sciences (SPSS 16.0), survey data was captured and the descriptive statistical analyses were performed. Kaiser-Meyer- Olkin measure of sampling adequacy and Bartlett test of sphericity were employed to determine the accuracy of principal component analysis (data reduction procedure) for the collected data.

Table 1.2 : Summary of test results –Validity Analysis and KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	1.007E3
	Df	276
	Sig.	.000

Table 1.2 shows the KMO measure of sampling adequacy which aims to analyze whether the strength of the relationship between variables is large enough to proceed to a factor analysis. Here, the value of KMO statistics, it falls in the acceptable range (above .50) with the value of .756 indicating the appropriateness of the factor analysis. To access the significance of correlation matrix, Bartlett test of sphericity is found to be significant at ($p < 0.00001$). As Bartlett's test of sphericity showed that chi square value is .007 with 276 degree of freedom which indicates that value of chi square defines the goodness of fit of the model . A factor analysis with varimax rotation is employed and eigenvalue of 1.0 is used for factor extraction criterion. Factor loading of above .45 were used for item inclusion in the individual factor. To check the reliability of each factor, Cronbach's coefficients were also examined to measure the internal consistency (See table 5.3) with values greater than 0.6 indicating reliability.

Table 1.3 contains information regards to seven components and relative explanatory power communicated in Eigen value.

Table 1.3 Factor analysis of location specific determinants

<i>FACTOR</i>	<i>Factor Loading</i>	<i>Eigen value</i>	<i>Percent variance explained</i>	<i>Cum percent</i>	<i>Cronbach Alpha</i>	<i>Communalities</i>
Factor 1 Macro- economic and political factors		6.099	17.36	17.36	.865	
Differential inflation rate from home country	.856					.802
Political stability	.859					.801
Level of corruption	.850					.767
Availability of infrastructure	.564					.592
Factor 2 Government Policies		2.667	10.21	27.58	.746	
Government attitude towards foreign firms	.780					.621
Legal system	.720					.744
Foreign exchange regulations	.601					.666
Trade policy	.582					.686
Factor 3 Competitiveness climate		1.824	9.350	36.93	.641	
Access to regional	.553					.470

markets						
Economies of scale	.771					.683
Availability of natural resources	.614					.653
Investment incentives	.576					.713
Factor 4 Local resources		1.581	8.82	45.75	.730	
Availability of skilled labor /semi-skilled labor	.562					.654
Rate of return on investment	.737					.703
Operational cost l(transport, communication cost ,energy ,water)	.555					.569
Physical presence of suppliers	.571					.590
Availability of strategic resources (technology, know-how, management expertise, firm reputation)	.560					.631
Factor 5 Market conditions		1.377	7.73	53.489	.683	
Consumer base	.708					.581
Potential market growth	.862					.789
Market opportunities	.553					.525
Factor 6 Business facilitation		1.122	6.52	60.01	.636	
Corporate taxes	.700					.590
Intensity of competition	.709					.568
Factor 7 Production Cost		1.004	5.30	65.31	.667	
Existence of viable land for investment	.809					.704
Labor cost	.567					.718

*Extraction method: Principal Component Analysis (7 factors extracted)
Rotation method: Varimax with Kaiser Normalization*

Table 1.3 contains information regards to seven components and relative explanatory power communicated in eigen value. Seven factors have been extracted by using eigen values criteria and appropriate names are given based on variables represented by them in each case. The seven factors retained represent 65.31 percent of the variance of the twenty-four variables. The factor arrangement was obtained by from component analysis with the VARIMAX rotation method of the seven perceptions of Outward FDI decision related factors. The cut off point for explanation purpose the significant acceptance level of factor loading is +/- 0.55 or above on the basis of sample size i.e 105 (Statistical Software, Inc., 1993) .Below is the list extracted factors with mean scores of each items comes under each factor.

Factor 1 Macro- economic and political factor

This factor explains 17.56 per-cent of variance and deals with aspects such as differential inflation rate from home country' (.85), followed by 'Political stability' (.85) and 'Level of corruption' (.85) and Availability of infrastructure .The factor is termed as Macro- economic and political factor having reliability coefficient equal to .865.

Table 1.4 Mean and Importance degree of Macro- economic and political factor

(N=105)

Socio-economic Environment	Mean	Std. Deviation	Degree of Importance
Differential inflation rate from home country	3.16	1.294	Important
Political stability	3.27	1.361	Important
Level of corruption	2.96	1.200	Important
Availability of infrastructure	3.76	1.097	More Important
Socio economic factor	3.28	2.48	Important

According to the table 1.4, the analysis results shows the importance degree of the respondents for macro- economic and political factor with the mean value of 3.28 (SD=2.48). Availability of infrastructure has highest average score (Mean =3.76, SD=1.097) while differential inflation rate from home country has the lowest average score. Overall, this factor is least important among other locational factors with mean score of 3.28.

2. Government Policy factor

This factor emerges as important one with value 10.21 per-cent of the total variance explained. Four items are loaded in this factor. Highest factor loading is for item 'Government attitude towards foreign firms' (.78), followed by 'Legal system' (.72) and "Foreign exchange regulations' (.72). The factor is termed as Government Policy factor having reliability coefficient equal to .746.

Table 1.5 Mean and Importance degree of Government Policy factor

(N=105)

Government Policies	Mean	Std. Deviation	Degree of Importance
Government attitude towards foreign firms	4.22	.539	More Important
Legal system	3.66	1.200	More Important
Foreign exchange regulations	3.35	1.1601	Important
Trade policy	3.79	1.141	More Important
Government Policies Important	3.755	1.75	More

According to the table 1.5, the analysis results shows the importance degree of the respondents for government policy factor with average mean score of 3.76 (SD=1.75). Government attitude towards foreign firms had highest average score (Mean =4.22, SD=.539) responding the most significant factor among all other items while Foreign exchange regulations was in important degree with lowest average score (Mean=3.35; SD =1.16). This factor is also considered as important with sixth highest mean score of 3.755

3. Competitiveness climate factors

The factor has value of 9.35 per-cent of the total variance explained having four items loaded in it. The items have the highest factor loading is 'Access to regional markets' (.553) followed by 'Economies of scale' (.77), 'Availability of natural resources' (.614). The factor is named as Competitiveness climate factors having reliability coefficient equal to .641.

Table 1.6 Mean and Importance degree of Competitiveness climate factors

(N=105)

Competitiveness climate	Mean	Std. Deviation	Degree of Importance
Access to regional markets	4.07	.763	More Important
Economies of scale	4.00	.734	More Important
Availability of natural resources	3.91	.952	More Important
Investment incentives	3.88	.968	More Important
Competitiveness climate Important	3.96	1.72	More

According to the results displayed by Table 1.6 the importance degree for competitiveness climate factors was in more important with average mean score of 3.96 (SD=1.72). Access to regional markets had highest average score (Mean =4.07, SD=.763) considered as most important factor among other items while Investment incentives was in important degree with the lowest average score. Overall this factor is regarded as significant with fourth highest mean score of 3.96.

4. Local resources factors

The factor has value 8.82 per-cent of the total variance explained having five items loaded in it. The items has the highest factor loading is 'Availability of skilled labor /semi-skilled labor' (.56) followed by 'Rate of return on investment' (.73), 'Operational cost (transport, communication cost, energy, water)' (.55). The factor is named as Local resources factors having reliability coefficient equal to .730.

Table 1.7 Mean and Importance degree of Local resources factors

(N=105)

Local resources	Mean	Std. Deviation	Degree of Importance
Availability of skilled labor /semi-skilled labor	3.87	.856	More Important
Rate of return on investment	4.19	.889	More Important
Operational cost (transport, communication cost, energy, water)	4.21	.927	More Important
Physical presence of suppliers	3.80	.965	More Important
Availability of strategic resources (technology, know-how, management expertise, firm reputation)	3.81	1.010	More Important
Local resources Important	3.976	2.08	More

The mean and importance degree of local resources was shown in Table 1.7. reports the importance degree of local resources with operational cost (transport, communication cost, energy, water) gains highest average score (Mean =4.21, SD=.927) respondents considered as most important factor among other items while physical presence of suppliers has the lowest average score (Mean =3.80, SD= .965). Overall this factor has third highest mean score of 3.97 named as Factor 4 or 'Local resources' occurred an important factor determining FDI decision in African nation by Indian firms.

5. Market condition factors

Among all the deterministic factors, the respondents assigned maximum score to 'market condition' It indicates that Indian firms engaged in outward FDI activity in African nation due to its large market size and availability of market opportunities. The factor has 7.73 per-cent of the total variance explained having three items loaded in it. The items having the highest factor loading is 'Consumer base' (.70) followed by 'Potential market growth' (.86), 'Market opportunities' (.55). The factor is named as market conditions factors with Cronbach's Alpha equal to .683 which depicts the reliability.

Table 1.8 Mean and Importance degree of Market conditions factors

(N=105)

Market conditions	Mean	Std. Deviation	Degree of Importance
Consumer base	4.66	.477	More Important
Potential market growth	4.60	.582	More Important
Market opportunities	4.57	.535	More Important
Market conditions	4.61	.92	More Important

Table 1.8 indicates that the overall importance degree of the respondents for market condition factors. The mean and importance degree of market condition factors is in most important degree with the highest mean value of 4.61 (SD=2.48). Among all the items consumer base responded as most important factor with highest average score (Mean =4.66, SD=.477) while market opportunities with the lowest average score (Mean = 4.60, SD= .582). The variables in Tables 5.8 are highly correlated hence can be named as single variables called Factor 5 or 'Market condition'. factor have with highest mean score 4.61 (SD=2.48) supports the notions that this determinant plays important role in influencing Indian Outward FDI activity in African markets. Of the firms surveyed, market condition is the significant factors attracting FDI in African nations.

6. Business facilitation factor

The factor has 6.52 percent of the total variance explained having two items loaded in it. The items have the highest factor loading is 'Corporate taxes' (.700) followed by 'Intensity of competition' (.709). The factor is named as Business facilitation factors with Cronbach's Alpha equal to .636 which depicts the reliability. All these measurement items are highly correlated and contributes to single factor which can be named as 'Business facilitation'

Table 1.9 Mean and Importance degree of Business facilitation factors

(N=105)

Business facilitation factors	Mean	Std. Deviation	Degree of Importance
Corporate taxes	3.90	.720	More Important
Intensity of competition	3.83	.802	More Important
Business facilitation	3.865	1.07	More

Important

Table 1.9 showed the mean and importance degree of Business facilitation. Corporate taxes in more important degree with the mean value of 3.90 (SD=.720). The results revealed that corporate taxes has highest average score (Mean =3.76, SD=1.097) responding as most significant factor among all other items while intensity of competition with lowest average score while (Mean =3.83, SD=1.07) . Overall this factor is significant with fifth highest mean score of 3.865.

7. Production Cost factor

The factor has 5.30 percent of the total variance explained having two items loaded in it. The items having the highest factor loading is 'Existence of viable land for investment' (.80) followed by 'Labor cost' (.56). The factor is named as Production Cost factors denotes respondents perception reliability analysis comes to .636. These variables are highly correlated and contribute to a single factor named as Factor 7 or 'Production cost'.

Table 1.10 Mean and Importance degree of *Production Cost*

(N=105)

Production Cost Factors	Mean	Std. Deviation	Degree of Importance
Existence of viable land for investment	4.07	.406	More Important
Labor cost	4.24	.711	More Important
Production Cost Factors	4.155	.818	More Important

Table 1.10 showed importance degree for Production Cost which deals with aspects such as Existence of viable land for investment, Labor cost. The results depicts that existence of viable land for investment and labor cost both have highest score with highest mean value of score of 4.07 (SD=.406) and 4.24 (SD= .711) respectively. Overall this factor is regarded as most important after market conditions factor with second highest mean score of 4.155.

5.3 Relationship between Location specific determinants and level of Indian FDI to African nations

4.3 Correlation Analysis

Since, the application of factor analysis resulted into seven determinants namely economic and political factors , Government Policy factor, Competitiveness climate factors, Local resources factors, Market conditions factors, Business facilitation factors, Production Cost factors. The independent variables were derived from 24 items. In order to measure the strength of relationship between seven independent variables, correlation analysis has employed to test the relationship between variables. Seven factors are considered as aspects and these were hypothesized to find the significant impact on dependent variable i.e. Indian FDI in African nations in this section.

H1: H0: There is no significantly important locational determinant influencing FDI in Africa by Indian firms.

H1a: These 7 determinants (economic and political factors, Government Policy factor, Competitiveness climate factors, Local resources factors, Market conditions factors, Business

facilitation factors, Production Cost factors) have insignificant significant relationship with the Indian FDI in African nations.

In order to test the hypothesis, Pearson correlation is employed to identify the relationship between seven independent variables (economic and political factors, Government Policy factor, Competitiveness climate factors, Local resources factors, Market conditions factors, Business facilitation factors, Production Cost factors) with the dependent variable (Indian O-FDI for testing hypothesis (H1)

Table 1.11 Summary of Correlation coefficients among variables (N=105)

Variables	FDI	1.EPF	2. GPF	3.CCF	4.LRF	5.MCF	6.BBF	7.PCF
O-FDI Pearson correlation Sig. (2- tailed test)	1	-.027 .783	-.115 .241	.187 .048	-.051 .608	.033 .735	.067 .500	.040 .687
1.EPF Pearson correlation Sig. (2- tailed test)		1	.000 1.000	.000 1.000	.000 1.000	.000 1.000	.000 1.000	.000 1.000
2.SEF Pearson correlation Sig. (2- tailed test)			1	.000 1.000	.000 1.000	.000 1.000	.000 1.000	.000 1.000
3.GPF Pearson correlation Sig. (2- tailed test)				1	.000 1.000	.000 1.000	.000 1.000	.000 1.000
4.LRF Pearson correlation Sig. (2- tailed test)					1	.000 1.000	.000 1.000	.000 1.000
5.MCF Pearson correlation Sig. (2- tailed test)						1	.000 1.000	.000 1.000
6.BBF Pearson correlation Sig.(2- tailed test)							1	.000 1.000
7.PCF Pearson correlation Sig.(2- tailed test)								1

*. Correlation is significant at the 0.05 level (2-tailed).

Table 1.11 exhibits whether the correlation is exit between the dependent variables and independent variables .Seven 7 factors are derived from 24 independent variables and total FDI inflows to Africa by Indian firms depicts as dependent variable. The result shows that there is a relationship between studied variables. As per the table, competitiveness factor has ($r = .393$, $p = .040$) positive correlation at 5% level of significance among the Indian firms .Thus this indicates that there is significant correlation between FDI in Africa by Indian firms and Competitiveness factor. In terms of strength of association with level of Indian FDI to Africa , the above table implies that other factors namely economic and political factors ($r = -.027$), Government Policy factor ($r = .115$), Competitiveness climate factors ($r = .187$), Local resources factors ($r = .051$), Market conditions factors ($r = .033$), Business facilitation factors ($r = .067$, $p = .5$) and production cost factor ($r = .040$) have no correlation at 5% level of significance among the Indian firms . This indicates competitiveness factor is one of the important factor having positive correlation but weak relationship with level of FDI in Africa by Indian companies. Therefore, hypothesis H1a is rejected. This concludes that there exists a positive and significant correlation between variables and furthermore, correlation coefficients are less than 0.5, that signifies this factor have weak linear relationship with Indian FDI in African nations.

5.3.2 Multiple Regression Analysis

H1b H0: These 7 determinants (Socio-economic Environment factor, Government Policy factor, Competitiveness climate factors, Local resources factors, Market conditions factors, Business facilitation factors, Production Cost factors) are insignificant predictor of Indian FDI in African nations.

Multiple regression is used to identify predictive power of seven determinants influencing overall Indian FDI in African nations .To test the hypothesis (Hb), step wise regression is employed in the study. This technique finds the best fit model which includes set of independent variables that contribute significantly in the regression equation.

Table 1.12 Model Summary

Model	R	R square	Adjusted R square	Std. error of the Estimate	Durbin Watson
1	.194 ^a	.038	.028	155.7036670	2.059

a. Predictors: (Constant), Competitiveness climate factors

Since .it is step –wise method, it gives all models that are highly significant at each step. Table 5.12 reports the model summary for the set of independent and dependent variables. R² for the model is .194 and indicates that 19.4 per-cent of variation in Indian FDI in African nations is explained by Competitiveness climate factor. The Durbin –Watson statistic for this model is 2.09 which is within the desired range (1.5 to 2.5).Therefore, it shows that the assumption of residual are uncorrelated is valid. The first model (stepwise) is the best model .The model consist of dependent variable, Indian FDI outflows to African nations and independent variable competitiveness climate is the best model. It denotes that other independent variables in the model are not significantly predict the level of Indian Outward FDI in African nations.

Table 1.13 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1.	Regression	96664.39	1			.049 ^a
	Residual	2472850.45	102	24243.632	3.987	
	Total		103			

a. Predictors: (Constant), Competitiveness climate factors

b. Dependent Variable: LF

The ANOVA table 1.13 for regression analysis shows whether the model is valid and significant or not. The ANOVA is significant, significance value in the above table is less than the level of significance (taken 5 %).It implies that there is a relationship between set of variables

Table 1.14 Summary of regression coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	40.707	15.268		2.666	.009
REGR factor score 3 for analysis 1	30.635	15.342	.194	1.997	.049

a. Dependent Variable: LF

The above statistical analysis table 1.14 shows the value of constant and regression coefficient of independent variable that is the best combination which contributes best in the regression model. Hence, competitiveness climate factor is significant in predictor of FDI in Africa by Indian firms.

Based on the results, the regression equation is

From table 5.14 regression coefficients are $b_0=40.35$, $b_1= 30.63$

So, regression equation can be expressed as

$$y = b_0 + b_1x_1$$

Level of Indian FDI in Africa $y=40.707+ (30.63)$ competitiveness climate

The sample y intercept b_0 is computed as 40.70. The negative sign of regression coefficient b_1 indicates inverse relationship between dependent variable, Indian FDI outflows to African nations (y) and independent variable (x_1) natural and physical resource factor (x_1). This means that a unit increase in natural and physical resource (x_1) results in -33.33 predicted declines in level of Indian FDI to Africa.

Table 1.15 Summary of Regression coefficients

	Unstandardized Std. Coefficients Error		Standardized Coefficients		
	B		β	t	Sig
(Constant)	40.707	15.268		2.666	.009
SE	-4.651	15.619	-.029	-.302	.763
GP	-18.401	15.619	-.117	-1.202	.232
CC	30.635	15.619	1.997	.194	.049
LR	-8.241	15.619	-.052	-.536	.594
MC	5.414	15.619	.034	.351	.726
BF	9.742	15.619	.062	.633	.528
PC	5.916	15.619	.037	.384	.702

a. Dependent Variable: Indian FDI in African nations

Table 1.15 shows the regression analysis of all variables which indicates that out of seven determinants only Factor 3 or Competitiveness climate is a significant predictor of FDI in African nations by Indian firms rest of the variables are insignificant as significance column shows that value is more than level of acceptance (5 per-cent). The t and p value confirms that Competitiveness climate has a significant impact to predict Indian FDI in Africa. Hence the null hypothesis (H₀) is rejected.

Conclusion with policy recommendations

Above analysis summarizes the locational determinants behind the large scale of FDI in African nations by Indian firms. According to the main results found in the statistical analysis that Indian investing in African nations are highly motivated by the large markets of the continent. This is fundamentally because of the most of the firms having the intention to produce for the local market rather than exporting. The main finding in the factor analysis concludes that African countries huge consumer base and growth is an important factor to encourage their investments. Market condition of African nations is the key point that influences Indian multinational investment decisions. Respondents are influenced by consumer base, market opportunities and potential market growth present in African nations which led to their investments in continent. The findings are consistent with the theories and previous literature, the previous research emphasizes that Indian investments are market-seeking suitable for low cost products in poorer countries (Kumar, 2008; Saikai, 2009). Indian direct investments in Africa continent are mainly resource-seeking and market seeking FDI (Sadiket *et al* 2001). In fact, one major motivation behind Indian investments in African countries is to seek markets. Findings of the study are in line with the theory and previous studies that large market size and market growth is a significant factor of FDI (Shapiro, 1998, Ali and Guo, 2005). One of the key reasons Africa has been the center region with high potential economic growth. As per African economic Outlook, the African economy is relied upon to develop at 5.8 per-cent in 2012. On the planet's ten quickest developing economies (2011-2015) list distributed by International Monetary Fund (IMF) seven economies are in Africa.

Furthermore it has been an advantage for Indian firms to buy land in African markets. The reason behind is that cost of land is less accompanied with low operational cost. Indian firms indicated enthusiasm for beginning business in African business sector so as to get high rate on investment. To pull in private venture, African governments have been effectively advancing their countries as speculation areas to meet the development objectives. Government from both India and Africa commonly comprehend the need of holding hands and gave numerous motivating forces to Indian firms as far as concessional advances and credit extensions. This resulted in the consequence of good relationship between India and African country government persistently which helped interest in African market and offered stage to firms to serve the African markets.

Obtained responses revealed that firms chosen African markets due to availability of low cost labor to produce at economies of scale and earn more profit. The main reason to set up production facilities in Africa is to gain regional access and serve the neighboring regions as well.

Another main finding in the correlation and regression analysis reveals that competitiveness climate is the positive and significant predictor of FDI in Africa by Indian firms. Competitiveness climate is an important determinant that respondents regarded as significant which includes key aspects namely economies of scale, investment incentives and availability of natural resources. India is not bounteous in natural resources, firms established production base in African nations to secure raw material supplies in home country. Thus this dramatically reduces the expenditure on imports of the resources. One of the new outcomes from the examination is that global integration is important for Indian investors putting resources into African nations. It has been observed from primary data analysis, Indian firms want to gain access to global and regional markets. This factor is significant behind Outward FDI activity by Indian firms in Africa. This demonstrates that Africa is a critical market and investing in Africa is a significant part of Indian firms global strategy.

Undoubtedly, FDI is an instrument which promotes economic growth for African nations. As it improved liquidity of the African economies and created ample employment opportunities for local people and The most sustainable benefit for African nations are Indian firms are bringing technical know-how and exploiting cheap labour , natural resources of African market .India is among the top three job creator in Africa followed by China and Turkey. Indian government played a very significant role in promoting Outward FDI from India and country being the biggest host nation for FDI among the emerging nations underpins the accomplishment of the policies. In any case further changes are required.

African nations government must adopt sound macro-economic policies to ensure the investment friendly business climate. It is well understood that there is a need of skilled labour force in African nations. In order to achieve the desired level there is a need that African countries and institutions should step forward to reduce the skill gap and capitalize on on-growing FDI flows to build greater technological capability. The ration of scientists and researchers in Africa is just 79 million population, compared to a world average of 1081 per million. There is a need of young minds to in sustain the high economic growth in the continent. To enhance the conducive investment climate, there is need to remove formal and informal barriers of trade specially exchange-rate regulations, quotas and ensuring effective competition policies. There is need to bridge the infrastructure gap by giving universal access to electricity and enhanced ICT although Africa is regarded as next frontier for investors and Lastly, the government should create specific locational advantages by taking measures against corruption, violence and government mismanagement in Central Africa to attract investment to the region. This will decrease the huge gap of development in Northern, Eastern , Western and Southern regions in Africa.

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