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The impact of country attractiveness on delocalization opportunities within Republic of Mali

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Abstract

Background/Objectives: This study highlights the benefit of delocalization as generator of economic development, the impact of country attractiveness on delocalization opportunities. The recommendations should be used as guideline for Malian authorities.
Methods/Statistical analysis: The quantitative and qualitative methods, primary data collected by questionnaires and interviews are used. Secondary data are gotten from articles, journals and online resources. The research framework was analyzed using simple regression model. Hypothesis test is adopted to accept or reject the hypothesis formulated in this research. Excel software have been used to perform the test, the measures of p-value, correlation coefficient, coefficient of determination, standard error and slope.
Findings: The research findings confirmed that: delocalization is a development opportunities for developing countries. The results suggest that country attractiveness have significant impact on delocalization opportunities. Delocalization is a source of job creation, dissemination of technological knowledge, productivity improvement for local firms. Country attractiveness has a positive impact on delocalization opportunities is valid hypothesis. This study makes several contributions to research and theory of country attractiveness and delocalization opportunities. A greater understanding of the country attractiveness and delocalization opportunities provided further investigation of the relationship between country attractiveness and delocalization opportunities. This model can be used by other developing country to attract foreign investments. Through the use of this model, country can quickly identify areas requiring urgent improvement.
Improvements/Applications: Mali needs improvement in public administration, education, legislation, infrastructure, security and energy. The theoretical model developed in this study is applicable in practice.
Keywords: Country Attractiveness, Delocalization, Development, Simple Regression.

1. Introduction

The multinational firms need strategy to build a new competitive advantage if they have to respond challenges. The required strategy or delocalization is to supplant the production in foreign countries where the factor of production are cheaper and other advantageous conditions. A characteristic of such an era is an increasing orientation toward developing countries and their attractiveness. The attractiveness of a country is the ability of the country to attract the delocalization of production factors (capital, labor…) or to attract tourists. The challenges for multinational firms are to produce where cheaper and sell where there is purchase power. The delocalization of foreign companies is a development opportunity for developing countries long time excluded of international trade.

The challenge for developing countries is to get itself favorable position in the new international division of labor. Mali faces several problems, namely unemployment, the exclusion of the international trade, and the lack of access to technology, the industry is represented by a few quantities of manufactures and lower productivity of local businesses. Developing a country attractiveness of delocalization has become a strategy for economic and political authorities. Malian authorities are trying to attract delocalization regarded as a source of job creation, dissemination of technological knowledge, and improving productivity of local firms. To become

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attractive country for multinational firms is not an option for Mali but a necessity. Is delocalization a development opportunity for Mali?

This study is focused on the current impact of country attractiveness on delocalization opportunities within Mali. Its overall objective is to highlight the benefit of delocalization for developing country. It has following specific objectives:

1. To obtain the effects of country attractiveness on delocalization in Mali;
2. To obtain a theoretical model of country attractiveness on delocalization opportunities for Mali;
3. To specify and test hypothesis from the research model of country attractiveness and delocalization opportunities which is derived from their theoretical foundations;
4. To obtain country attractiveness knowledge with specific characteristics of Mali generated new knowledge.

The research questions: Question 1: « What iscountry attractiveness? »; Question 2: « What is delocalization? » will be answered. In the review of the relevant literature of delocalization and country attractiveness, it has been found that different researchers adopted different definitions and frameworks based on their own understanding and research objectives. Many authors define delocalization as separate places (countries) manufacturing or processing of goods to their location or country for consumption, moving the production activity of enterprises for foreign countries. Delocalized production is carried out outside national territory, it offers job to residents of host country.

However they distinguish two types of delocalization: in the strict sense delocalization means the closure of a unit of domestic production, opening a production unit abroad and reimport the production carried out abroad to serve the domestic market; delocalization can be also defined as the redeployment of the space center of gravity of economic groups, which is largely tied to market dynamics and organization. Country attractiveness is a multidisciplinary concept at the crossroads of development economics, financial economics, comparative law and political science: it aims at tracking and contrasting the relative appeal of different territories and jurisdictions competing for “Scarce” investment inflows, by scoring them quantitatively and qualitatively across *ad hoc* series of variables such as gross domestic product growth, tax rates, capital repatriation… etc [1].

The perception of attractiveness varies by type of economic actor. Thus for industrial, civil war will be a factor reducing an attractiveness of the country but i twill be a factor increasing the attractiveness for an arms dealer. The foreign direct investment is often used as a measure of the volume of delocalization. The traditional theoretical analysis on the determinants of foreign direct investment can include : 1) « why » the company decides to delocalize abroad to carry out part of its work, in consideration the internal factors to the firm such us as internalization, transaction costs [2] and 2) « why » the company chooses to delocalize its activities in one country and not in another and considering the external factors , that is to say the various factors in the attractiveness of the countries [3-4]. Those approaches are complementary and allow to consider that the delocalization decision is the result of the combining the advantages of the firm and the reception area [5]. Those traditional approaches have favored a single geographic level of observation, usually the country. However, foreign firms tend to delocalize, in the same regions as their competitors. The analysis of agglomeration effects would be relevant to a fine geographical scale. The new theories of delocalization and in particular the analysis of economic geography [6], allow a more detailed study of spatial delocalization of foreigncompanies in foreign jurisdictions.

This type of analysis helps to answer the question « where » to delocalizeproduction activities (when the host is chosen) and to examine agglomeration effects arising for the delocalization strategy. Moreover recent theoretical research on the determinants of multinational firms and delocalization of activities reveals a sequential process in explaining the choice of delocalization [7], the delocalization decision of multinational enterprise can be described as a sequence of geographical choice in which the foreign firm first chooses a country and region within that country [8]. NIt is a structure of hierarchical choice geographically. Like [8], determinants of delocalization choice of foreign firms can be classified into four major types: market size, cost of inputs and the number of firms in each location and finally the attractiveness of various policies pursued by local authorities of the host country. The relative importance of those factors varies by geographic level decision. It is

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therefore interesting to clarify the influence of each factor for each level location (country, region). Factors influencing the choice of host country attractiveness refer to a country, while choosing a settlement area. At sub national level depends on attractiveness, that is to say the specific factors of attractiveness in the region beyond common factors in all regions of the country (such us geographical proximity, institutional factors). For a theoretical justification and formalized those determinants see [9], may be factors of attractiveness in their own, specific incentives, cost, quality of institutions and infrastructure. Market size and level of demand are generally criteria of choice countries [8]. A foreign investor who establishes a presence in a market is more attracted by the importance of the domestic market. The region has fewer subs national because the multinational has global vision on national market. That is especially true when the host country is small. In this case the proximity of the host countries can offset the effect of market size. Conversely when the geographical distance between country of origin and the host country is important, the market size becomes the more important criterion. In this case market potential of location [2] may also play important role.

A foreign company may be interested in a supranational market. The following hypothesis is proposed: H: country attractiveness has a positive impact on delocalization opportunities. Based on the literature review, informal discussions with participants of economic forum of Bamako « investing in Mali, December 2017 », potential foreign investors, academicians, political and economic actors, research objectives, 5 research questions were proposed. They are listed as follows: Question 1: What iscountry attractiveness? Question 2: What is delocalization? Question 3: What kind of theoretical model of the impact of country attractiveness on delocalization needs to guide Malian authorities to attract foreign direct investments? Question 4: How can this model of the impact of country attractiveness on delocalization opportunities be demonstrated in practice? Question 5: What extent the relationship is between country attractiveness and delocalization opportunities?

2. Methodology

The research Question 4 "How can this theoretical model of the impact of country attractiveness on delocalization be demonstrated in practice? Will be answered. According to [10], case studies are the preferred strategy when "how" or "why “are questions asked.

The West African country Mali puts this model of country attractiveness on delocalization attractiveness into practice and can also provide a better understanding of the model.

2.1. Theoretical model

Research Question 3: "What kind of theoretical model of the impact of country attractiveness on delocalization opportunities needs to guide Malian authorities to attract foreign direct investments?” will be answered as shown in Figure 1.

The country attractiveness constructs are: "Easy access to raw materials and cheap inputs"; "More favorable taxation"; "Legal certainty"; "Geographic proximity"; "Cultural appeal"; "Potential for business growth"; "Market size"; "Infrastructure"; Political environment"; and "Effects of agglomeration".

The country attractiveness is the independent variable (cause) and the delocalization opportunities the dependent variable (effect). This model is based on assumption that the country attractiveness (x) haspositive effects on the country attractiveness (y).

Hypothesis H1+: The country attractiveness has positive impact on the country attractiveness.

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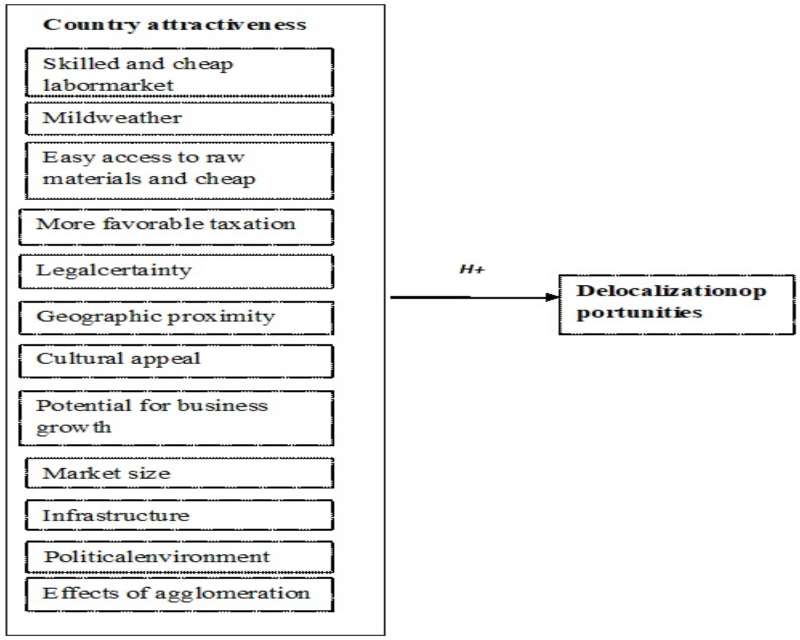
Figure 1. Theoretical model of country attractiveness and delocalization opportunities



2.2. A brief introduction of Mali

Republic of Mali, Capital Bamako**:**

1. Population of almost 18,8 million (2017) Area 1.25 million square km (482,077 square miles)"
2. Major languages French, Bambara, Berber, Arabic"
3. Religions Islam, indigenousbeliefs »
4. Currency CFA (Communauté Financière Africaine) Franc
5. Mali borders Algeria, Mauritania, Senegal, Guinea, Burkina Faso, and Niger.
6. The average temperature highs of every month are over 30 degrees Celsius.
7. Record highs of 46 degrees Celsius have been recorded in the month of May.

The coolest months are November to February which can experience average lows of 16 to 19 degrees Celsius but the temperature may fluctuate greatly with highs of 36 Celsius being recorded in February for instance.

1. The political and security situation in Mali has been particularly volatile in recent years.
2. Mali ranks 176th out of 188 countries on the United Nations Human Development Index for 2015.
3. Agriculture-products: cotton, millet, rice, corn, vegetables, peanuts; cattle, sheep, goats
   Exports – commodities**:** cotton 50%, gold, livestock"
4. Exports – partners: China 30.5%, India 15.1%, Indonesia 8.6%, Bangladesh 6.3%, Thailand (2013)
5. Industries: Food processing; Construction; Phosphate and Gold mining"
   Imports – commodities: petroleum, machinery and equipment, construction materials, foodstuffs, textiles
6. Imports – partners: France 11%, Senegal 10.1%, Ivory Coast 9.2%, China 7.6% (2013) [11].

2.3. Data collection

Primary and secondary data sources are used.

1. Primary data sources

Primary data are information's collected directly by the researcher, when secondary data are not available or are unable to contribute to the achievement of research objectives [12].

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1.1. Interviews and observations

Interviews were conducted with foreign potential investors who took part of the forum “investing in Mali” 2017.

1.2. Questionnaire survey

The research Question 5 "What is the extent of the relationship between country attractiveness and delocalization opportunities ”? Will be answered.

1.3. Country attractiveness survey

The respondents (25 potential foreign investors) to the questionnaire are invited to note Mali on the following country attractiveness constructs: "Easy access to raw materials and cheap inputs"; " More favorable taxation"; "Legal certainty ";" Geographic proximity";" Cultural appeal"; "Potential for business growth"; "Market size"; "Infrastructure"; Political environment", and "Effects of agglomeration".

Respondents to those items were used five-point Likert format ranging from 1 to 5. The rating scale is as follows: 1 to 2 Very Dissatisfied, 2 to 3 Dissatisfied, 3 to 4 Satisfied, 4 to 5 Very Satisfied. For the sake of objectivity all those who are responsible for the management of these points above are not concerned by the questionnaire.

1.4. Delocalization opportunities survey

Respondents (the same 25 potential foreign investors) to the questionnaire are invited to note their "perception of the supposed advantage to delocalize production activities in Mali" into Likert scale ratings. The rating scale is as follows: 1 to 2 Very Dissatisfied, 2 to 3 Dissatisfied, 3 to 4 Satisfied, and 4 to 5 Very satisfied.

2. Secondary data sources

Textbooks, academic articles and journals related to the country attractiveness and delocalization have been used. In addition online resources have been used to obtain information for the literature review.

2.4. Case study questions

Only one country, Mali has been selected to lead this case study. Three issues are addressed in this case study, which are listed as follows:

Question 1: What are the strengths of Mali to attract foreign investment?
This is a descriptive question focusing on the strengths of the current practices of delocalization versus the practices presented in this study theoretical Model. After the comparison, the strengths of Mali attractiveness could be identified.

Question 2: What are the weaknesses of Mali to attract foreign investment? Current practices of country attractiveness and delocalization have been compared to this model. Thus, weak areas could be identified. Weaknesses could be used by Malian authorities as opportunities to seek improvement actions and develop an improvement plan.

Question 3: What type of improvement plan can be formulated to strengthen the Mali capabilities in the attractiveness of delocalization?

2.5. Data analysis

The research framework of this study was analyzed using simple regression model. We can write down a model of the following form:

$$Yi = \beta 0 + \beta 1xi + ei$$

Where β0 the interceptand β1 is the *slope* of the line. We assume that the error terms have a mean value of 0.

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Table 1, a simple linear regression is carried out to estimate the relationship between a dependent variable, *Y,* and a single explanatory variable, *x,* given a set of data that includes observations for both of these variables for a particular population. We would carry out a simple linear regression analysis to predict the value of the dependent variable, y given the value of the explanatory variable, x. For a sample of *n*=25, foreign potential investors, we might be interested in the relationship of two variables as follows: Delocalization opportunities, the dependent variable, and *y* country attractiveness, the independent or explanatory variable, *x*. We are trying to predict the value ofdelocalization opportunities. Data are collected at the of economic forum"investing in Mali" in Bamako 2017.

Table 1. Country attractiveness and delocalization opportunities, Data for excel input

Observations (n)	Country attractiveness (x)	Delocalization opportunities (y)
Observation 1	3	3
Observation 2	3	3,5
Observation 3	2	2
Observation 4	3,5	3,5
Observation 5	3	3
Observation 6	3,5	4
Observation 7	2	2
Observation 8	3,5	3,5
Observation 9	4	3
Observation 10	2	2
Observation 11	4	3,5
Observation 12	3	3
Observation 13	1,75	2
Observation 14	1	2
Observation 15	2,25	3
Observation 16	4	4
Observation 17	2,35	3
Observation 18	4	3,5
Observation 19	3,23	4
Observation 20	2,86	3
Observation 21	3,45	4
Observation 22	3,42	4
Observation 23	1,96	2
Observation 24	3,1	3
Observation 25	3	4

Source: primary data, *CA= country attractiveness or Independent variable,*
DL= delocalization opportunities or dependent variable, N=number of respondents

3. Results and discussion

Excel software have been used to perform the test, the p-value analysis, Correlation coefficient R, Coefficient of determination R-squared, Standard error, Slope, P-value.

1. The correlation coefficient

A single summary number that tells you whether a relationship exists between two variables, how strong that relationship is and whether the relationship is positive or negative.

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2. The coefficient of determination

A single summary number that tells you how much variation in one variable is directly related to variation in another variable.

3. Linear regressions

A process that allows you to make predictions about variable “Y” based on knowledge you have about variable “X”.

4. The standard error of estimate

A single summary number that allows you to tell how accurate your predictions are likely to be when you perform Linear Regression.

5. Slope

To measure the change in y, for one unite change in x,

6. P-value

To measure the probability we would be making a mistake to reject null hypothesis.

7. Hypothesis testing

Standard errors can also be used to perform hypothesis tests on the coefficients. The most common hypothesis test involves testing the null hypothesis of: H0: There is no relationship between X and Y versus the alternative hypothesis H1: There is some relationship between X and Y as shown in Table 2.

Table 2. Excel output

Observations	25
R	0,813
R-squared	66%
Standard error of the estimate	0,438
Regression Equation	
Slope	0,741
Intercept	0,940
y = 0,94 + 0,741 (x)	
Predicting With The Regression Equation	
X value	20
Confidence Level	95%
Predicted Y value	15,760
Confidence Interval	15,760
PredictionInterval	15,760
Hypothesis Test For Correlation	
Null hypothesis: Slope = 0 (no correlation)	
Level of Significance	0,05
t-Statistic (computed)	6,7020
p-value	0,0000
Decision	Reject the nullhypothesis
Conclusion	Concludethatcorrelationexists.

Source: primary data, R= Correlation coefficient, R-square= Coefficient of determination, t=test student, p-value=probability, N=number of respondents

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3.1. Interpreting results

1. Correlation coefficient R

The measure of degree of relationship between country attractiveness and delocalization opportunities is 0,835, this relationship is strong.

2. Coefficient of determination R-squared

70% of the variability in delocalization opportunities can be explained by the regression equation.

3. Standard error

The measure of dispersion of data around the regression line is 0, 409.

4. Slope

A one unites change in country attractiveness results in 0, 752 changes in delocalization opportunities.

5. P-values

The probability we would making a mistake to reject null hypothesis iso, ooo.

6. Decision

We reject null hypothesis, H1+ is valid hypothesis.

7. Conclusion

We conclude that correlation exists between country attractiveness and delocalization opportunities.The results of the simple regression analysis imply that country attractiveness has a significantly positive relationship with delocalization opportunities. The multinational firms need for easy access to raw materials and cheap inputs" favorable regulation and taxation" transparency and ease conditions of institutions" geographic proximity" cultural appeal" potential for business growth" access to new markets" good infrastructure, security, stability, fairness, integrity, and economic openness.

4. Recommendations/Suggestions

The potential opportunities for improvement borrowed from the experts, consultants, academician and practitioners, foreign direct investors are listed as follows:

1. Adaptation of the education system to the labor market.
2. Abandonment of certain practices such as administrative slowness and corruption in public administration.
3. More flexible labor legislation with more protection for foreign direct investors.
4. A massive investment in infrastructure and energy.
5. Strengthen security measures to protect people and their property.

5. Conclusion

The main purpose of this study was to investigate the relationships between country attractiveness and delocalization opportunities as perceived by potential foreign investor in Mali. A number of conclusions have been drawn from this research. Thus, a theory of country attractiveness related to Mali has been developed. First, the measurement instruments of the country attractiveness and delocalization opportunities are reliable and valid and can be used by other researchers to test the effects of country attractiveness and delocalization opportunities. Second, several conclusions were drawn from the theoretical model test:

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1. Country attractiveness has positive effects on delocalization opportunities
2. The political and economic authorities have positive effects on country attractiveness

Foreign investor satisfaction is useful information for the effort to measure delocalization opportunities. Third, the country attractiveness and delocalization opportunities model developed in this study is applicable in practice. This model can be used by other developing country to attract foreign investments. Can this theoretical model be used in other developing country? In fact, the case study was conducted in Mali.

Thus, the conclusion drawn from the case study can be generalized to other developing countries. Strictly speaking, generalization is limited. Through the use of this model, country can quickly identify areas requiring urgent improvement. Thus, resources can be allocated more wisely. Different developing countries have different characteristics. Different countries should adopt different approaches to country attractiveness according to their own situation.

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