

# GLOBAL JOURNAL OF HUMAN SOCIAL SCIENCES: E

## Economics



Decomposition of Economic

The Role of Borrowers Living

Highlights

Puratchi Thalaivi Amma's

Urbanisation Promote Consumption

Discovering Thoughts, Inventing Future



## GLOBAL JOURNAL OF HUMAN-SOCIAL SCIENCE: E ECONOMICS

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**GLOBAL JOURNAL OF HUMAN-SOCIAL SCIENCE: E  
ECONOMICS**

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# The Role of Borrowers' Living Area and its Moderation Effect on Relationship between Microfinance and Poverty Alleviation in Sri Lanka: Multi - Group CFA

By J.A Prasansha Kumari, Dr. S.M. Ferdous Azam & Prof. Siti Khalidah

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**Abstract-** This article highlights the moderating effect of living areas of the borrowers on the impact of microfinance programs on poverty alleviation. The study has utilized the data from 497 borrowers of Samurdhi microfinance in five disaster-affected districts in the country to examines that two different living areas (disaster-affected and non-disaster affected area) of borrowers moderate the relationship between microfinance services and poverty alleviation. The Multi-Group CFA analysis was performed to identify the moderating effect using AMOS 21. Quantitative results were finding revealed that the moderation tests were significant for all the three microfinance services on poverty alleviation. The effect of microfinance services of borrowers in the disaster-affected area higher than the borrowers in non-disaster area.

**Keywords:** *microfinance, poverty alleviation, moderating effect, living area.*

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# The Role of Borrowers' Living Area and its Moderation Effect on Relationship between Microfinance and Poverty Alleviation in Sri Lanka: Multi – Group CFA

J.A Prasansha Kumari<sup>a</sup>, Dr. S.M. Ferdous Azam<sup>a</sup> & Prof. Siti Khalidah<sup>b</sup>

**Abstract-** This article highlights the moderating effect of living areas of the borrowers on the impact of microfinance programs on poverty alleviation. The study has utilized the data from 497 borrowers of Samurdhi microfinance in five disaster-affected districts in the country to examines that two different living areas (disaster-affected and non-disaster affected area) of borrowers moderate the relationship between microfinance services and poverty alleviation. The Multi-Group CFA analysis was performed to identify the moderating effect using AMOS 21. Quantitative results were finding revealed that the moderation tests were significant for all the three microfinance services on poverty alleviation. The effect of microfinance services of borrowers in the disaster-affected area higher than the borrowers in non-disaster area.

**Keywords:** microfinance, poverty alleviation, moderating effect, living area.

## I. INTRODUCTION

Microfinance is referred as the provision of financial services such as credit, savings, insurance, payment services to poor earning less than \$2 per day. Microloan of \$50-\$1000 to poor for their business has identified as the significant tool for combat poverty among the poor. (David, 2019; CGAP, 2003, Robinson, 2001, Yunus, 2007) Microfinance services are increasing the income, micro-entrepreneurship, and economic wellbeing of the poor. As well as microfinance has enhanced the other financial performance such as savings and accumulation of assets. Nonfinancial Services and social intermediation service increases the non-financial outcomes of poor such as a health and nutrition, financial literacy, education, women's empowerment, and social cohesion (Bent, 2019; UNICEF, 1997; Schuler et al., 1997)

The modern concepts of microfinance rapidly spread after the Nobel Prize for microcredit program for

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Grameen microcredit program in Bangladesh. In 1990 decades microfinance played a significant role in eradication poverty, particularly in developing countries in South Africa and South Asia. The history of the microfinance industry in Sri Lanka goes back to the British colonial period with the implemented of Thrift and Credit Co-operative Societies (TCCSs) in 1906. TCCSs was the first credit co-operative in Sri Lanka in early 20 decades (Microfinance Industry Report Sri Lanka, 2010). Early credit society has provided input procurement and products distribution service initially, the service gradually developed as multipurpose Comparative Societies (MPCSSs). The microfinance industry eventually increased in the country late 1980 decades. There were several local and international organization engaged in microfinance with community development activities. Sri Lankan government is also playing a role in providing microfinance to the poor in the country. The Samurdhi Development Program was the national poverty alleviation program, which was introduced in 1994, replacing the previous poverty alleviation program (Janasaviya). 1,070 Samurdhi Bank Societies (SBSs) has provided 65% from total microcredit the end of 2016 (Samurdhi Performance Report, 2017). Microfinance played a vibrant role in the economy over the past few years. It is a significant tool to alleviating poverty and empower the poor economically and socially vulnerable segments of society.

Majority of the study revealed that the positive impact of microfinance servicers reduction of poverty and empowering the poor in the country. Some studies have questioned these positive impacts. Others indicate mixed outcomes, such as positive effects for the poor but not for the poorest people (Copestake et al, 2001; Hulme & Mosley, 1996; Morduch, 1998). The current poverty level in Sri Lanka seen as a spatial characteristic. The natural disasters have been identified as a key phenomenon for the high poverty level in several districts in the past few years (Department of Censuses Statistics, 2017). No specific studies were undertaken in Sri Lanka identifying the impact microfinance services on reducing the spatial disparities in the country by analyzing the moderate impact of the



living area of beneficiaries to poverty alleviation while concerning micro-insurance service for risk management of life and business etc. This study mainly focused on the impact of living areas of respondents to control the impact of microfinance on poverty in the country.

## II. PROBLEM STATEMENT

Poverty identified as a socio-economic issue which was experienced for a period of a long time in Sri Lanka. Overall country Poverty Headcount Ratio (HCR) has been decreasing during the last few years. However, the highest poverty Head Count Ratio reported in rural areas and natural disaster-affected areas in the same years. Hence, poverty identified as a spatial characteristic of the country as the reasons for natural disaster and other spatial issues. Microfinance is a most effective tool in fighting poverty have drawn the attention by governments after 1990 decades. Despite the availability of microfinance service to the poor; the disparities of poverty levels remain unchanged (Department of Statistics, 2017). There were many studies to identify the impact of microfinance on poverty alleviation in the country and most of them (Masuda, 2018; Kaluarachchi & Jahfer, 2014) emphasized the people-based' approaches to evaluating the effects. It is not enough to estimate the impact of microfinance on poverty. The disparities a much stronger focus on living area, in particular on place-based approach, could do much for evaluating microfinance on poverty. Hence, this study identified a valid gap in knowledge towards the element of government microfinance finance and its impact on spatial poverty alleviation by identifying the moderating effect of living area to the relationship between microfinance and spatial poverty alleviation.

## III. OBJECTIVES OF THE STUDY

There are three objectives of the study as follows;

1. To investigate whether the living area of borrowers moderates the relationship between microcredit and poverty alleviation
2. To identify that living area of borrowers moderates the relationship between nonfinancial service and poverty alleviation
3. To investigate whether the living area of borrowers moderates the relationship between insurance service and poverty alleviation

## IV. RESEARCH METHOD

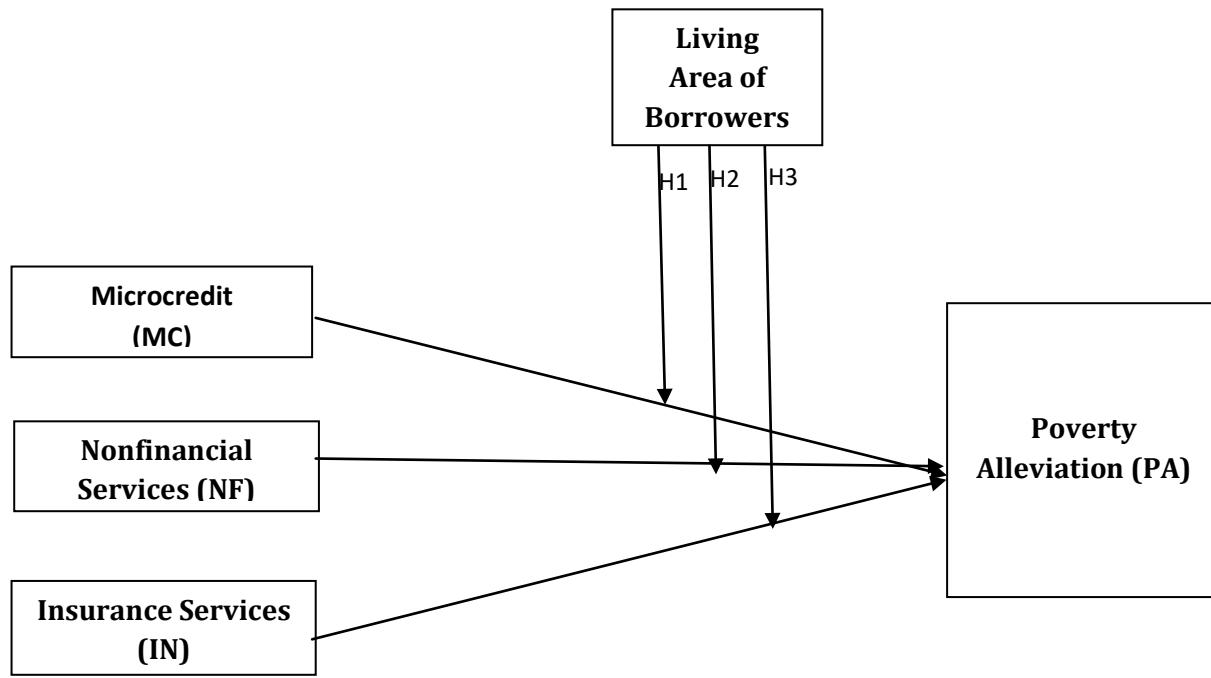
The study based on primary and secondary data. Primary data were collected from Likert scale questionnaire using 497 borrowers of Samurdhi microfinance programs in five disaster-affected districts in Sri Lanka namely, Kandy, Kegalle, Rathnapura, Gampaha, and Colombo. Simple Random Sample technique was used to collect the data from clients of

Samurdhi banking society in the areas. Collected data were analyzed using multi-group CFA analysis for identifying the moderation effect of living area to the relationship of microfinance services and poverty alleviation using AMOS 21and SPSS 21 version. There were 328 borrowers represent from the disaster-affected area and 169 borrowers in non-affected- area.

## V. CONCEPTUAL FRAMEWORK

The conceptual framework has been developed to identify the moderate effect living area to the relationship between Samurdhi microfinance and poverty. Previous empirical and theoretical literature was used to determine the variables in the study. It has consisted of four independent constructs as Microcredit, Nonfinancial Service, Insurance Service, and one dependent constructs as Poverty Alleviation. Living area used as the moderation variable to identifying the moderation effects among the relationship between independent and dependent variables.

Microcredit identified as the main service of the microfinance industry. It refers to a small amount of credit provided to the poor at a low-interest rate for creating new income through small scale business activities. This types of small loan facilities are significantly affecting for reducing poverty (Bent2019; Rashid& Ejaz, 2019; Ali, 2014). The concept of the Nonfinancial Service is another important service provided by microfinance institutions to the poor. It consists the different training programs and business advisory services for effective use to microcredit and advances the living stand of the poor. Insurance service is one of the key tools provided by microfinance programs to manage the risk of properties and lives of their borrowers (Mosley & Hulme, 2009). There are two types of insurance, namely life insurance and business insurance. Health and property are a significant source for coverage of the risk of poor to alleviate poverty.(Li,2019; Banerjeeet al, 2014; Hamidet al, 2011; Gertler & Gruber, 2002).The living area significantly determined the poverty level of the country. Majority of previous research explores that there was moderate impact by living area for the relationship between microfinance and poverty. Hence the study identified the living area as a moderator variable. Based on those independent, dependent, and moderate variables. The conceptual framework developed as following figure 1



Source: Research 2019

*Figure 1:* Conceptual Framework

## VI. THE HYPOTHESIS OF THE STUDY

Based on the previous studies and conceptual framework three main hypotheses were developed to analyses the moderate impact as indicated bellow

H1: Living area of borrowers moderating the relationship between microcredit and poverty alleviation

H2: Living area of borrowers moderating the relationship between nonfinancial service and poverty alleviation

H3: Living area of borrowers moderating the relationship between insurance services and poverty alleviation

## VII. MULTI-GROUP CFA ANALYSIS FOR MODERATING EFFECT

Multi-group CFA Analysis is one of the analysis methods for estimating the effect of moderator variable in the studies (Hoque & Awang, 2019; Salam & Hoque 2019; Zainudin, 2012). There are few steps were followed. This analysis builds the constrained model and unconstrained model and identifies the path which interest in assessing the moderation impact. The selected path was put parameter 1 and called a constrained model; other model remains an unconstrained model. Both models run separately for estimating Chi- Squares. The next step Identify the difference of Chi-Square values between two constrained and unconstrained models. If the difference obtains by more than 3.84 with one degree of freedom, moderation occurs in the selected path (Zainudin, 2012). The study has followed this method for identifying the moderating impact of all three paths separately. The

moderation effect of living area to the relationship between microcredit and poverty alleviation.

The moderation test was significant for the relationship between microcredit and poverty alleviation since the Chi-Square difference between the constrained and unconstrained model for the above path was higher than 3.84 with 1 degree of freedom for each group. Therefore, hypothesis 1 statement was supported.



*Table 1:* Moderation effect of micro credit to poverty alleviation

Path	Living Area	Constrained Model ( $\chi^2$ )	df	Unconstrained model ( $\chi^2$ )	DF	$\Delta\chi^2$	$\Delta df$	Result on Moderation	Result on Hypothesis
MC To PA	Disaster	647.9 420.6	270 270	602.5 393.3	271 271	72.5 27.3	1 1	Significant Significant	Supported Supported
	Non – affected area								
H2: There is a moderating effect of gender for impact of Non-Finance Servicers on spatial poverty alleviation								Supported	

Source: Research Data Analysis, 2019

Table 1 indicates the Chi-Square difference between the constrained and unconstrained model. Chi-square for the constrained model of disaster-affected was 647.9 and unconstrained model illustrates as 602.5. The Chi-Square difference (between the two models) was 45.4, which is greater than 3.84. Hence the result

on moderation was significant. The second raw presents the Chi-Square values for constrained and constrained models of the non-affected area. The test for the second group is also significant as the Chi-Square difference between constrained and unconstrained model greater than 3.84 with one degree of Freedom.

*Table 2:* The model fit summary table for disaster-affected and non-affected-areaof MC to PA

Group		Normed $\chi^2$	CFI	TLI	IFI	NFI	RAMSEA	Comment
		>5	>0.9	>0.9	>0.9	>0.9	>0.8	
Disaster Area	Constrained	2.382	.953	.944	.953	.922	.065	The required level achieved in the models
	Unconstrained	2.223	.959	.950	.959	.928	.061	
Non Affected area	Constrained	1.546	.950	.940	.938	.873	.057	
	Unconstrained	1.451	.959	.951	.960	.881	.052	

Source: Research Data Analysis, 2019

The model fit summary table indicates the model fit indices for constrained models of both groups as indicates table 2. The model fit for the disaster-affected area yields a normed  $\chi^2$  (chi-square) 2.382, which was lower than 3 indicates a good model fit. Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Normed Fit Index (NFI) were higher than .9 which indicate the required level for goodness of fit Root Mean-Square Error of Approximation (RMSEA) (Holmes-Smith 2000) for both models were lower than cut-off value 0.08 which indicate the perfect model fit.

- a) *The moderation effect of living area to the relationship between nonfinancial services and poverty alleviation*

There is a significant moderation effect on the relationship between nonfinancial service and poverty alleviation. Table 3 indicates the Chi-Square values for both disaster-affected and non- area for the constrained and unconstrained models

*Table 3:* Moderation effect of non-financial service to poverty alleviation

Path	Living Area	Constrained Model ( $\chi^2$ )	df	Unconstrained model ( $\chi^2$ )	DF	$\Delta\chi^2$	$\Delta df$	Result on Moderation	Result on Hypothesis
NF To PA	Disaster	666.5 429.6	590 590	602.5 393.3	271 271	64 36.3	1 1	Significant Significant	Supported Supported
	Non affected area								
H2: There is a moderating effect of gender for impact of Non-Finance Servicers on spatial poverty alleviation								Supported	

Source: Research Data Analysis, 2019

The Chi-Square values of the constrained model disaster-affected area estimated as 666.5 while unconstrained model estimated as 602.5 with a difference of 64. The Chi-Square values for non- area indicated as 429.6 for constrained model and 393.3 for an unconstrained model with a difference of 36.3. There

is a significant moderation effect hence the value difference greater than 3.84 with one degree of freedom.

*Table 4:* The model fit summary table for disaster affected and non-area of NF to PA

Group		Normed $\chi^2$	CFI	TLI	IFI	NFI	RAMSEA	Comment
		>5	>0.9	>0.9	>0.9	>0.9	>0.8	
Disaster Area	Constrained	2.450	.951	.941	.951	.919	.067	The required level achieved in the models
	Unconstrained	2.223	.959	.950	.959	.928	.061	
Non affected area	Constrained	1.579	.947	.937	.948	.870	.059	
	Unconstrained	1.451	.959	.951	.960	.881	.052	

Source: Research Data Analysis, 2019

The overall fit measured for the constrained and unconstrained models (disaster-affected and non-areas) full models in the SEM indicates the acceptable model fit. All the estimates of the goodness of fit were at the required level.

- b) The moderation effect of living area to the relationship between insurance services and poverty alleviation

The table illustrates the Chi-Square values for the both unstrained and unconstrained model of the disaster-affected and non-affected- area. The difference of Chi-Square values for both group estimates indicated that the significant moderation impact on the relationship between insurance service and poverty alleviation. Table 4 presents the Chi-Square values for both groups.

*Table 5:* Moderation effect of insurance service to poverty alleviation

Path	Living Area	Constrained Model ( $\chi^2$ )	df	Unconstrained model ( $\chi^2$ )	DF	$\Delta\chi^2$	$\Delta df$	Result on Moderation	Result on Hypothesis
IN To PA	disaster	675 461.3	270 270	602.5 393.3	271 271	72.5 68	1 1	Significant Significant	Supported Supported
	Non affected								
H2: There is a moderating effect of gender for impact of Non-Finance Servicers on spatial poverty alleviation								Supported	

Source: Research Data Analysis, 2019

Table 5 indicates the Chi-Square values of both constrained and unconstrained model for the two different groups. The estimates value differences of Chi-Square illustrated the significant moderation effect

between the insurance service and poverty alleviation. The table presents the model fit a summary table for both groups of the constrained model.

*Table 6:* The model fit summary table for disaster affected and non-affected-area of IN to PA

Group	Model	Normed $\chi^2$	CFI	TLI	IFI	NFI	RAMSEA	Comment
		>5	>0.9	>0.9	>0.9	>0.9	>0.08	
Disaster Area	Constrained	2.482	.950	.940	.950	.919	.067	The required level achieved in the constrained and unconstrained model
	Unconstrained	2.223	.959	.950	.959	.928	.061	
Non affected area	Constrained	1.696	.937	.924	.938	.861	.064	
	Unconstrained	1.451	.959	.951	.960	.881	.052	

Source: Research Data Analysis, 2019

- c) Comparing the Group Effect (Living Area) for a Moderating Variable

The study paid attention to identifying which group effect is more powerful to the relationship between independent and dependent as a moderator variable. Hence, estimated the standardized values of all paths for both the disaster-affected area and non-affected area. The standardized regression weight of the default model of the path coefficient (Beta) should be greater than >.20 (Ramayah& Lee, 2012), and it was considered this requirement to identify the moderation effect.

Table 7 indicates the model fit estimates for both Unconstrained and constrained full models in the SEM of Disaster affect area and non-area. The mode fit indices of both constrained and unconstrained models of disaster-affected area were above cut off value, respectively Normed  $\chi^2$ = 2.482, 2.223; CFI= .950, 959; TLI= .940, 950; IFI=.950,959; NFI=.919, .928 and RMSEA= .067, 061. The estimate model fit indices for non-area also achieved the required level, respectively Normed  $\chi^2$ = 1696, 1.451; CFI= .937, 959; TLI= .924, 951; IFI=.938, 960 and RMSEA= .064, 052. Only NFI value was around less than .9 as .861, .881.

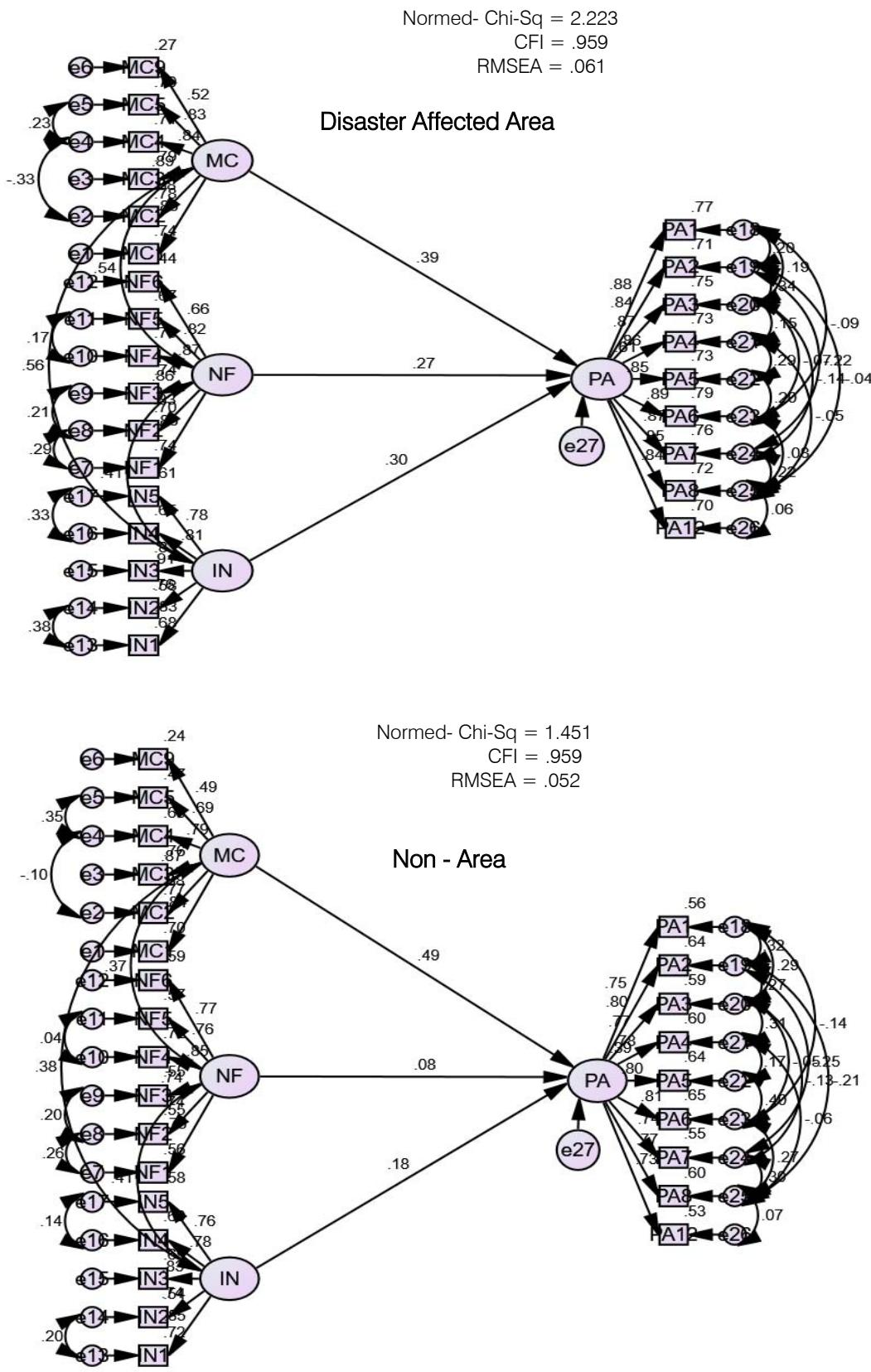


Figure 2: Structural Equation Model for Disaster affected area and non disaster area

As indicates in figure (2) of structural equation models, the standardized parameter estimate (MC to PA) of the disaster-affected area is 0.39 while the same estimate of non-area is 0.49. Thus, the effect of Microcredit on spatial poverty alleviation is more pronounced in non-area compared to disaster-affected area, since both values are significant then partial moderation occurs. The standardized parameter estimate for the disaster-affected area is .27 while non-area indicates as .08 for the relationship between

nonfinancial Service and poverty alleviation. Since only one estimate is significant full moderation occurs for this relationship. The standardized parameter estimate for insurance service to poverty alleviation shows a full moderation as standardized parameter estimate for the disaster-affected area is .30 while .18 for non-area. The study identified two full moderation effects and one partial impact. The summary of the group effect presents in table 7 below.

**Table 7:** The summary of the group effect

Path	Living area	Standardized beta Estimate	P	Result	Moderation effect
PA<>Micro credit	Disaster	.39	***	Significant	Partial moderation
	Non affected	.49	***	Significant	
PA<> Non-financial services	Disaster	.27	***	Not significant	Full moderation
	Non affected	.08	.318	Not significant	
PA<> insurance	Disaster	.30	***	Significant	Full Moderation
	Non affected	.18	.029		

Source: Research Data Analysis, 2019

## VIII. CONCLUSION

The poverty of Sri Lanka identified as a spatial and natural disaster was one of the key reason behind the development level and poverty level in some districts in the country. Microfinance plays a major role in reducing poverty in those areas. The study investigated whether what is the moderating effect of a disaster and non-affected area for the relationship between microfinance and spatial poverty. The multi-group analysis conducted for identifying the significance of the moderating impact of the disaster-affected area and non-disaster area. The moderation test was significant for all path relationship since the Chi-Square difference between the constrained and unconstrained model was higher than 3.84 with 1 degree of freedom. Therefore, there is a living area moderated the effects between microfinance servicers and poverty alleviation.

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# Does Urbanisation Promote Consumption of Diverse Diets? A Nigerian Study

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**Abstract-** Increasing urban growth is significantly transforming food landscape. However, consumption of a diverse diet is constrained by different factors owing to disparities in extent of access to nutritionally and safe food in most urban areas. This paper using cross-sectional data from 445 urban households in Nigeria, analyses the determinants of dietary diversity using the Berry Index and Quantile regression model. Income of household head, household size and level of urbanisation were important factors that influenced household's consumption of a diverse diet. However, the rate of influence varies in magnitude across quantiles. Results revealed heterogeneous level of dietary diversity across quantiles which suggests disparities in intake of wider varieties of food in urban settings. Suitable policy interventions are identified.

**Keywords:** *dietary diversity, Nigeria, quantile regression, urbanicity, urban households.*

**GJHSS-E Classification:** FOR Code: 120599



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# Does Urbanisation Promote Consumption of Diverse Diets? A Nigerian Study

Adesola Adebola Ikudayisi

**Abstract-** Increasing urban growth is significantly transforming food landscape. However, consumption of a diverse diet is constrained by different factors owing to disparities in extent of access to nutritionally and safe food in most urban areas. This paper using cross-sectional data from 445 urban households in Nigeria, analyses the determinants of dietary diversity using the Berry Index and Quantile regression model. Income of household head, household size and level of urbanisation were important factors that influenced household's consumption of a diverse diet. However, the rate of influence varies in magnitude across quantiles. Results revealed heterogeneous level of dietary diversity across quantiles which suggests disparities in intake of wider varieties of food in urban settings. Suitable policy interventions are identified.

**Keywords:** dietary diversity, Nigeria, quantile regression, urbanicity, urban households.

## I. INTRODUCTION

In recent times, consumers have shifted away from diets of varying nutritional qualities toward diets of edible oil and animal-source foods (Doan, 2014). This profound shifts in diets often less diversified in nutrients and lower in fiber, termed nutrition transition is responsible for the prevalence of non-communicable diseases and other diet-related diseases (Cockx, et al., 2017; Olawuyi and Adeoye, 2018). This trend is accentuated by growth in per capita income, population, economic development, changing socioeconomic status and rising urbanisation (Seto and Ramakutty, 2016; Zhou and Staatz, 2016). In Nigeria, these transitions have contributed to significant changes in food consumption pattern with urban households consistently shifting away from traditional foods to more animal based diets and processed foods (Liverpool-Tasie et al., 2016). More specifically, urbanization has been identified as a crucial determinant of dietary patterns and considered as one of the driving forces behind the nutrition transition (Cockx et al., 2017). As a result of rapid urban growth, most developing countries are now burdened with the triple burden of malnutrition which encompasses undernourishment, micronutrient deficiencies and over-nutrition (Olawuyi and Adeoye, 2018). Although, food insecurity still remains primarily a rural phenomenon, the rapidly expanding proportion of urban poor further posits a greater policy attention towards the urban food secure. A significant proportion

of these urban population are micronutrient deficient, while some other subpopulations suffer from over-nutrition and obesity as a consequence of more sedentary lifestyles. There remains an unmet need to investigate urban differentials in household dietary pattern.

With the rise in income and urban population, having sufficient resources to afford a safe food in terms of food accessibility is the most important dimension of food security in urban areas as urban residents are net food buyers (Kuku-Shittu et al., 2013; Ruel et al., 2017). However, extent of access to these foods are threatened by changing socioeconomic status, income inequality and high food prices resulting to increased urban food insecurity (Omonona and Agoi, 2007; Babalola and Isitor, 2014). Also, varying social class as a result of rural-urban migration is expected to affect level of access to food owing to high rate of unemployment in the formal sector and seasonal variation at the informal. This often restrict amount of money expended on nutrient-rich foods in order to meet their basic food requirements, thus consumption of foods with low nutritional value which tend towards poor food utilisation. Decline in the ratio of food producers to food consumers and weakens rural-urban food linkages as urban population grows increases household's dependence on commercial food supplies compare to own production. This suggests inadequate access to food as opposed to inadequate food supply which has been identified as a critical challenge towards consumption of diverse diet. This trend is evident as low proportions of households in Nigeria have adequate access to food, coupled with the rise in triple burden of malnutrition (Akerele, 2015; International Food Policy Research Institute, (IFPRI), 2017).

Given that Nigeria is currently in the midst of an unprecedented wave of urbanisation with about 51.3 % of its population living in urban areas (United Nations, 2018), such trend will likely influence urban food consumption. This posits different challenges with respect to food demand and food systems. Poor understanding of dietary pattern within urban areas of Nigeria might hinder effective orientation and strategies towards food driven improvements especially for the urban poor. Therefore, empirical understanding of Nigerian urban food environment and changing dietary pattern is important to correctly predict urban dietary



intake and develop the right policies towards making agriculture work for food and nutrition security.

In literature, several studies have examined the effect of various socioeconomics characteristics on dietary diversity (Doan 2014; Das 2014; Akerele and Odeniyi, 2015; Codjoe et al., 2016; Cordero-Ahiman et al., 2017). These studies found that both non-economic (e.g. age, household size, education) and economic factors (e.g income, prices) influenced household consumption of diverse diets. Most of the literature based on rural-urban dichotomy concluded that urban areas are better off compared to rural areas in dietary diversity (Alexandria and Pauna, 2014; Doan 2014; Alexandria and Kevorchian, 2015; Qineti et al., 2017). This general conclusion might run contrary when level of urbanisation is considered especially within urban areas. This is because urban areas noted as hub of economic activities with rapid urban growth as a result of rural-urban migration comprised varying social class (Ikuyatum, 2016). It is expected that differences might likely occur in these areas. Although, some studies considered dietary diversity within urban areas, however, quantifying the extent of urbanisation was not incorporated (Frimpong, 2013; Das, 2014). This paper, however, differentiates itself in that it disaggregates urbanisation by urban indicators and computes their individual contributions to the construction of the urbanicity index which explains the urban effect among households. This approach in line with UN (2014) methodology of defining urban areas offers sound policy options as it considers urbanisation as a dynamic process. Estimating dietary pattern within urban areas are expected to differ due to variations in socioeconomic characteristics of household and changing level of urbanisation. With changes in urban lifestyle and subsequently the structure of food environment in Nigeria, it is necessary to incorporate urban effect into dietary diversity studies as diet-related diseases are on the increase in the face of rapid urbanisation.

Most studies which analysed the factors that influence household dietary pattern have primarily relied on mean estimation approaches such as Ordinary Least Squares (OLS), and two-stage-least square (2SLS) (Doan 2014; Cupak, et al., 2014; Akerele and Odeniyi, 2015; Codjoe et al., 2016; Qineti et al., 2017). Although the average effect might yield straightforward interpretations on dietary outcomes, they are restricted to only providing evidence of the impact of independent variables at the mean of the respective diversity measures. In this regard, the regression mean approach may not appropriate how covariates affect dietary diversity differently at different points of the conditional dietary distribution which is crucial for policy purposes. For instance, studies have shown that increase in income is associated with better dietary outcome (Akerele and Odeniyi, 2015; Doan, 2014), it would be

expedient to know where increased income occur at the conditional distribution considering different social classes in urban areas. The interest, therefore, lies in describing the relationship at different points in the conditional distribution of diversity which tends to address the question of 'for whom does diversity matter?' Few studies however used quantile regression but the urbanisation effect especially in urban areas was not considered (Drescher and Goddard, 2011; Das, 2014). Reliable information on dietary pattern in urban areas of Nigeria is rather scarce. This might hinder effective orientation and strategies towards food driven improvements especially for the vulnerable. Therefore, the need for holistic approach to underpin the underlying nexus between related to dietary diversity, while capturing rising effect of urbanisation and dietary diversity.

The objective of this paper is to investigate the effect of urbanisation and other socioeconomic factors on household dietary pattern in urban areas of Nigeria. Quantile regression (QR) approach was employed as it maintains a modelling advantage over linear regression with non-normally distributed data. It is useful when dependent variable in this case dietary diversity is sensitive to small changes (i.e high variation) as suggested by Rizov et al. (2015). QR would help to identify population subgroups at the different tails of the diversity distribution (Drescher and Goddard, 2011). This may provide relevant information for economic and nutrition policy, where specific information about vulnerable sub-groups could generate targeted interventions. The rest of this paper is as follows. Section 2 explains the methodology and estimation parameters as well as the data used. Results and discussion is explained in section 3. The paper concludes with relevant policy recommendation in section 4.

## II. METHODOLOGY

### a) Data

The study used cross sectional data from two randomly selected states in Southwest Nigeria which are representative of areas with rapid urbanisation. The two states namely Ekiti and Oyo represented low and high urban population density areas (NPC, 2006). This representation was on the basis of their level of urbanisation, population, date of creation and other level of urban activities (Coker et al., 2008). A multi-stage sampling procedure was used to sampled 445 respondents. Information sourced included household socioeconomic and urban-related characteristics as well as food expenditure within a one-week period.

### b) Dietary diversity model

It is established in literature that a consumer with a hierachic preference function will add food items to his purchased set as income increases in an order

determined by prices (Theil and Finke, 1983; Jackson, 1984; Rizov, et al., 2015). Higher income allows additional goods to enter the consumption bundle, forming a systematic relationship between income and consumption diversity (Doan, 2014). This is premised on behaviour characterised by conditions which include; a very limited set of items purchased at low incomes; expansion of the set of items purchased as income increases; and a continuing growth in diversity at all income levels. As a result of this, it is apparent that consumer needs tend to quality rather than quantity as diversity changes. However, these features of behaviour can be included within the framework of maximization of a preference function. Following Jackson (1984) and Rizov, et al., (2015),  $u(q)$ , a utility function, represents any vector of quantities  $q$  in some set of food commodity,  $N$ . This is given as:

$$u(q) = u(q_1, q_2, \dots, q_n) \quad (1)$$

subject to budget constraint,

$$\sum p_i q_i = Y \quad (2)$$

while the non-negativity constraints hold for  $q_i \geq 0$ ;  $p_i$  represents the price for the  $i$ th food commodity and  $Y$  is income. Satisfying the Kuhn-Tucker conditions yields;

$$\frac{\partial u}{\partial q_i} - \lambda p_i = 0 \quad \text{if } i \in S, q_i > 0 \quad (3)$$

$$\frac{\partial u}{\partial q_i} - \lambda p_i < 0 \quad \text{if } i \in \bar{S}, q_i = 0 \quad (4)$$

where  $\lambda$  is the Lagrangian multiplier,  $S$  is the set of food commodities purchased, and  $\bar{S}$  is the set of food commodities not purchased. With reference to the cardinality notation, total quantities in a food commodity set, is given as  $|N| = |S| + |\bar{S}|$ . However, solution to the above conditions leads to the Marshallian food demand function which is expressed as:

$$q_i = f(p, Y) \quad (5)$$

where  $p$  is a vector of food prices and  $Y$ , the total income. However, the number of food commodities purchased in set  $S$  is also a function of food prices and income. For any urban household, let  $sh = |S|$  denotes the number of different food commodities consumed by household  $h$ , from the purchased set which is also a measure of dietary diversity ( $D$ ) at household level

(Jackson, 1984; Stewart and Harris, 2005). Then  $Dh = sh$  is a function of food prices and food expenditures, i.e.

$$Dh = sh = fh(ph, Yh) \quad (6)$$

where  $Yh$  is total household disposable income and  $fh$  is household specific diet diversity function which accounts for the household characteristics and factors affecting dietary choices.

Dietary diversity has in recent years emerged as one of the widespread and valid indicators of food security outcomes (Carletto, et al., 2012; Jones et al., 2013). Dietary diversity index (DDI) reveals both the quantities eaten and the nutritional qualities of the various food groups (Hoddinott and Yohannes, 2002). However, diversification is commonly quantified with the Berry Index which has been widely used in economics literature (Drescher and Goddard, 2011; Akerele and Odeniyi, 2015; Cockx, et al., 2017; Ogundari, 2017). Therefore, this paper used the Berry index of diversification to construct dietary diversity index (DDI) which shows the extent to which food consumed by households are diversified. It is expressed as:

$$BI = 1 - \sum \omega_i^2 \quad (7)$$

where  $\omega_i$  is the budget share of the  $i$ th (disaggregate) food commodity consumed in the total food bundle. It attains a maximum value when consumption shares are equally distributed among food consumed which is related to increase in nutritional adequacy ((Liu, et al., 2014; Archer, 2018). The food measurement unit was household food expenditure on 12 different food groups in a one-week period. The food groups namely; cereals, vegetables, fruits, meat, egg, fish and other seafood, legumes, roots and tubers, milk and milk products, oils and fats and beverages was in line with the recommended FAO standard in calculating dietary diversity at household level (Swindale and Bilinsky, 2006; FAO, 2011).

According to Doan (2014), higher income allows additional goods to enter the consumption bundle, forming a systematic relationship between income and consumption diversity. Due to the continuing growth in diversity as income levels improves which could be linked with rising urbanisation (Seto and Ramakutty, 2016; Qineti, et al., 2017), this paper empirically examines the effect of urbanisation on household diet diversity. This was done by specifying an estimating equation where household diet diversity ( $D$ ) is explained by extent of urbanisation, income, and other household sociodemographic characteristics using quantile regression. However, as household urban effect is not directly observable, this paper followed Zhou and Awokuse (2014), Jone-Smith et al.(2010) and Van de



Poel et al. (2008) in estimating urban effect through urban functional characteristics, a measure identified by UN (2014) in defining urbanisation level within urban areas. The characteristics which include the housing condition; transportation; health facilities; educational facilities; market availability; communication infrastructure; economic indices were modified and operationalised to construct urbanicity index using the principal component analysis (PCA). The urbanicity index shows the degree to which a community has the features of urban environment. Constructing an index is inevitable as single and disaggregated measures of urban indicators are often highly correlated variables with possible risk of multicollinearity (Abdi and Williams, 2010). Therefore, principal component analysis is most suited, as a data reduction tool. The index generated from correlated variables are transformed to uncorrelated ones, while retaining principal components with maximum variance (Suryanarayana and Mistry, 2016). This model guarantees that the weights of each urban component are optimally chosen to maximize the explained variance in the underlying latent variable, in this case urbanicity index. The components of the urbanicity index are expected to predict level of urbanisation differently, therefore avoiding the arbitrary selection of weights. The model is expressed as:

$$PC_1 = a_{11}X_1 + a_{12}X_2 + \dots + a_{1p}X_p \quad (8)$$

where  $X_1, X_2, \dots, X_p$  represents the urban indicators;  $a_{11}$  represents the weight for the  $X_1$  principal component. The coefficient of the first principal component,  $a_{11}, a_{12}, a_{1p}$ , that maximises the variance of  $PC_1$ , therefore, represents the index. The urbanicity index further reveals the underlying factors and enhances ease of estimation and improves statistical efficiency (Abdi and Williams, 2010). To further explain the degree of urbanicity, the generated urbanicity index was classified into three categories namely: the low, middle and high urbanicity groups based on distribution of the data. The PCA result on urban indicators revealed that the first principal component (PC) which explains about 48% of the urbanicity level and offers some economic intuition was used in computing the urbanicity index. The average urbanicity index generated from the sum of square loadings of the first PC was 0.46. Based on this index, households were classified to show the extent of urbanisation from which about 40.6% of households belong to the middle urban category (MUC), while 34.9% and 24.5% were in the low urban category (LUC) and high urban category (HUC), respectively. This ranking into urban categories builds on a previous study by Allender, et al. (2010), which further explains the magnitude of disparities within urban areas at various stages of urbanisation.

### c) Empirical model

This paper employed the quantile regressions, which estimate the effect of explanatory variables on the dependent variable at different points of the dependent variable's conditional distribution. Quantile regressions (QR) were initially introduced as a robust regression technique which allows for estimation where the typical assumption of normality of the error term might not be strictly satisfied (Koenker and Bassett, 1978). The method provides information about points in the distribution of the dependent variable other than the conditional mean (Eide and Showalter, 1998). The different quantiles may be interpreted as differences in the response of the dependent variable to changes in the regressors at various points in the conditional distribution of the dependent variable (Baum, 2013).

As specified by Koenker and Bassett (1978), QR can be expressed as:

$$Q\theta(Y/X) = X'\beta\theta \quad (9)$$

where  $Y$  denotes the dietary diversity index as a function of a set of independent variables,  $X$  within the  $\theta$ th quantile of the outcome variable  $Y$ . The special feature of the quantile regression approach is that the set of coefficients of the independent variables,  $\beta\theta$  can differ across quantiles. However, the estimator  $\beta\theta$  of the quantile regression is obtained by minimizing the objective function, given as:

$$Q(\beta\theta) = \sum \theta |y_i - x_i'\beta\theta| N_i : y_i \geq x_i'\beta + \sum (1-\theta) |y_i - x_i'\beta\theta| N_i : y_i < x_i'\beta \quad (10)$$

via Simplex method. Also, the model can be rewritten as follows:

$$q(Y_i) = \beta_q X_i + e_{qi} \quad (11)$$

where  $q$  is a specified quantile of dietary diversity( $Y_i$ ) with median regression denoted as  $q=0.5$

$\beta q = (\beta_{q1}, \beta_{q2}, \dots, \beta_{qj})$  is the vector of parameters to estimate, the coefficient of the vector will differ depending on the particular quantile being estimated.

$X_i = (X_{i1}, X_{i2}, \dots, X_{ij})$  is the vector of household characteristics and urbanicity index. Summary and definitions of household characteristics and other explanatory variables are described Table 1.  $e_{qi}$  is a random disturbance.

Using Stata Qreg, a quantile regression at the 10th, 50th and 90th level with bootstrap standard errors on the estimated parameters with 100 replications were estimated (Drescher and Goddard, 2011).

### III. RESULTS AND DISCUSSION

Result of the mean household dietary diversity index using the Berry Index of diversification was 7.22, implying that, on average, about seven (7) different food groups were consumed by the households in the study area. This result agrees with previous findings from Akerele and Odeniyi (2015) and Codjoe et al. (2016). This suggests dietary diversity of urban households was moderate based on number of food consumed. The result of quantile regression analysis is presented in Table 2 revealed that the low pseudo  $R^2$  squared obtained was quite typical with cross-sectional data, as observed by Das (2014). Also, the pseudo  $R^2$ , as a measure of goodness of fit with a range of 3% to 8% provides more information about diversity distribution for households in the lower quantiles than those at the higher quantiles. The result obtained from the raw and minimum sum of deviations were consistent, while the covariates were statistically different from zero, suggesting that each explanatory variable differs across the quantile of diversity distribution. Estimates obtained from different diversity distribution underscores the robustness of the model used compared to mean distribution (OLS). Some variables (household size, occupation, income and urbanicity group) were consistent across methods which suggests their relevance. From the OLS estimates, age, occupation, income of household heads positively influenced dietary diversity, while household size negatively influences it.

The quantile regression results (table 2) suggest some significant differences across different points in the conditional distribution. The result at the lower end of the distribution (10th quantile) showed that income of household head and being in middle urban category positively influenced consumption of diversified diets at 10% and 5% levels of significance, respectively. This suggests that dietary diversity at the lower end of the conditional distribution would improve by an increase in income. This implies that household consumption of nutrient-based foods improves as household heads engaged in income-generating activities which means more financial flow. The finding is consistent with those of Liu et al. (2013) and Qineti et al. (2017). Also, findings showed that households at the middle urbanicity group tends to have higher dietary diversity compared to those of low urbanicity group. This could be attributed to diverse economic opportunities, urban lifestyles and changing socioeconomic status which tends to improve financial access to food, coupled with extent of access to urban facilities. However, household size negatively influenced consumption of diverse diets at 1% significant level. This suggests that an increase in household size increases money expended on food, which limits their access to nutrient-rich food. This may be basically due to the fact that it may be more expensive to have food diversity within very large

household size as compared to small household size. This result contradicted the findings of Woldehanna and Behrman (2013) and Ecker et al. (2013) that larger household size had increased food diversity but match those found by Gaiha et al. (2013) and Rizov et al. (2015).

With respect to the median diversity quantile (50th quantile), it was observed that income of household head, membership of social group and being in middle urban category positively influenced diversified diets at 10% level of significance. Income of household head was also an important factor, however, at a lesser rate relative to lower diversity quantile. Also household size negatively influenced dietary pattern at 1% significant level which was contrary to Drescher and Goddard (2011). At the highest diversity quantile (90th quantile), household head's education, occupation, employment status significantly and positively influenced diversified diets at 1%, coupled with asset ownership and being in high urban category at 10% and 5% significant levels, respectively. However, sex of household head and membership of social group negatively influenced consumption of diverse diets at 5% significant level.

Better educated household head had the ability to process consumer dietary knowledge in food consumption which improves household's knowledge regarding health and nutrition. This finding corroborates those of Adamowicz and Swait, (2012), Liu et al. (2013) and Rizov et al. (2015). Contrary to expectation, the effect of formal education with the exception of highest quantile had insignificant effect on dietary gains across various regressions. This finding further explains the distributional effect of education on dietary diversity as against generalising its effect in urban areas as reported by some studies (Doan, 2014; Ahmed and Naptali, 2014). This suggests higher literacy level among urban households might not translate to more dietary gain. Therefore, greater awareness on nutritional education is equally important in ensuring consumption of wider food variety which is associated with improved dietary outcomes. Likewise, households in high urban category had better diverse diets relative to other urban category. This could be as a result of increased food distribution through access to larger varieties of food and expansion of food choices, as noted by Akerele and Odeniyi (2015) and Ogundari (2017).

Another notable result was the strength of the urbanicity variable in both the ordinary least squares (OLS) regression and in the quantile regression. The 0.031 estimate for middle urbanicity group in the lower quantile distribution implies that an increase in extent of urbanisation within urban areas would lead to a 0.031 point gain in dietary outcome. Similar interpretation was observed in the OLS estimate (0.013) except that the gain was at the mean. The parameter estimates for middle urbanicity category are statistically significant in

all cases except for the 90th quantile at high urban category. This suggests that growing relationship between rising urbanisation and diversity within urban diets might not translate directly into constant level of nutritional gains among urban consumers due to changing socioeconomic status, access to infrastructural facilities and varying social class. The findings with respect to the urban effect revealed that household dietary diversity is location-sensitive as suggested by Das (2014) and Seto and Ramankutty (2016). Also, the rate at which income influenced dietary diversity was higher (33%) at lower quantile compared to the other quantiles. This suggest policy strategies to improve financial capabilities will help households have access to wider varieties of foods and increase diverse diets. Across regression methods, household size had a negative relationship with consumption of diversified diets which was more pronounced especially at the lower end of the quantile (14%). This suggest enlightenment programmes on birth control/family planning would help improve dietary diversity across subpopulations in urban areas especially among urban poor with dwindling economic means.

#### IV. CONCLUSION

This paper investigates factors that influences urban household dietary pattern in Nigeria. From the empirical findings, this paper puts forward urban differential in factors that influenced dietary diversity distribution. Across methods of estimation, income, urbanisation level and household size were consistent variables. Specifically, the quantile regression results suggest that there may be differential in dietary effects at different points in the diversity distribution. These provide better information on how variables can be integrated into policy options that will help to improve household welfare since dietary quality measure is an outcome of food security. Thus, intervention strategy for better dietary outcome should revolve around policy propositions targeting different urban subpopulations as evident from the urbanicity grouping. Also, integration of agrifood systems and infrastructural facilities would strengthened rural-urban food linkages for effective food access to value added products which drives urban consumption. This will enhance agricultural productivity and food security.

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*Table 1:* Household socioeconomic characteristics used for the analysis

Explanatory variables	Variable meaning	Type of measure
Sex	Household is male headed or otherwise (female headed)	Dummy (male=1, otherwise=0)
Age	Age of household head in years	Discrete , number of years
Household size	Number of persons in the household	Discrete, measured by number
Membership in social organization	Household head being in a social group (professional, cooperative societies, religious, non-governmental organization) or not	Dummy (member=1, otherwise=0)
Educational status	Household head level of education being formal (primary, secondary and tertiary) or otherwise (non-formal)	Dummy (formal=1, otherwise=0)
Engaged in employment activities	Household head engagement in one form of income generating activities or not	Dummy (engaged=1, otherwise=0)
Average monthly income	Income earned by household head monthly	Continuous, measured in Naira
Occupational status	Occupational type of household head is in formal sector (government worker, private organizations) or otherwise (traders, farmers, artisans)	Dummy (formal sector=1, otherwise=0)
Household asset	Ownership of household assets	Asset index
Urbanicity index	Measure extent of urbanisation	Continuous, an index

*Table 2:* Parameter estimates of the determinants of household dietary diversity

	Quantiles			OLS
	0.1	0.5	0.9	
Sex (male=1)	0.0017 (0.0125)	0.0059 (0.0061)	-0.0094** (0.0041)	-0.0029 (0.0051)
Age (in years)	0.0048 (0.0061)	0.0025 (0.0029)	0.0002 (0.0020)	0.0050** (0.0024)
Age squared	-0.1336 (0.1953)	-0.0783 (0.0950)	-0.0182 (0.0645)	-0.1562** (0.0788)
Education (1 = formal)	0.0150 (0.0161)	0.0026 (0.0078)	0.0182*** (0.0053)	0.0034 (0.0065)
Household size (number)	-0.0143*** (0.0044)	-0.0053*** (0.0022)	-0.0009 (0.0015)	-0.0064*** (0.0017)
Occupation (1 = formal)	-0.0006 (0.0145)	0.0010 (0.0071)	0.0202*** (0.0048)	0.0100* (0.0058)
Employment status (1=employed)	0.0343 (0.0223)	-0.0125 (0.0109)	0.0208*** (0.0074)	-0.0066 (0.0090)
Urbanicity category (base=low)				
Medium	0.0305** (0.0131)	0.0108* (0.0064)	-0.0007 (0.0043)	0.0127** (0.0053)
High	0.0155 (0.0153)	-0.0061 (0.0074)	0.0108** (0.0050)	0.0038 (0.0062)
Asset index	-0.0012 (0.0025)	-0.0014 (0.0012)	0.0014* (0.0008)	-0.0007 (0.0010)
Membership of social group (1=yes)	0.0082 (0.0135)	0.0083* (0.0048)	-0.0101** (0.0045)	0.0043 (0.0054)
Household Income (Naira)	0.0330* (0.0191)	0.0139* (0.0093)	0.0077 (0.0063)	0.0211*** (0.0077)
Constant	0.4556*** (0.3068)	0.7101*** (0.1492)	0.8011*** (0.1013)	0.7193*** (0.1238)
Pseudo R <sup>2</sup>	0.0817	0.0352	0.0301	
Raw sum of deviations	8.8638	15.9445	5.8976	
Minimum sum of deviations	8.0914	15.4070	5.4523	
Adjusted R <sup>2</sup>		0.0826		
F test		3.17***		

Source: Output from quantile regression analysis. Figures in parentheses are standard error.

Statistical significance: \*\*\*1%, \*\* 5%, \*10%





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# Concurrence Fiscale, Mode de Financement de la Croissance basé sur le Capital Etranger et Qualité de la Redistribution du Revenu au Cameroun

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**Abstract-** The objective of this article is to analyse the social and economic effectiveness of a mode of financing development based on foreign direct investment. To this end, a careful and endoscopic observation of the recent economic literature has enabled us to see that FDI, through the mechanisms of the fiscal competition it generates between States, could in one way or another affect the socio-economic, tax and even redistributive variables of a host country. Thus, using the VAR modelling in this article, we realized that these foreign capital flows have a mixed effect on the quality of income redistribution in Cameroon.

**Keywords:** *FDI, redistribution, tax competition, VAR model.*

**GJHSS-E Classification:** FOR Code: *F23, H30, H50, O15*



*Strictly as per the compliance and regulations of:*



# Concurrence Fiscale, Mode de Financement de la Croissance basé sur le Capital Etranger et Qualité de la Redistribution du Revenu au Cameroun

Ibrahim<sup>a</sup> & Abessolo Yves André<sup>a</sup>

**Abstract-** The objective of this article is to analyse the social and economic effectiveness of a mode of financing development based on foreign direct investment. To this end, a careful and endoscopic observation of the recent economic literature has enabled us to see that FDI, through the mechanisms of the fiscal competition it generates between States, could in one way or another affect the socio-economic, tax and even redistributive variables of a host country. Thus, using the VAR modelling in this article, we realized that these foreign capital flows have a mixed effect on the quality of income redistribution in Cameroon.

**Keywords:** FDI, redistribution, tax competition, VAR model.

**Résumé-** L'objectif de cet article est d'analyser l'efficacité sociale et économique d'un mode de financement du développement basé sur les investissements directs étrangers. Pour ce faire, une observation attentive et endoscopique de la littérature économique récente nous a permis de voir que les IDE, à travers les mécanismes de la concurrence fiscale qu'ils engendrent entre les Etats, peuvent, d'une manière ou d'une autre, affecter les variables socioéconomiques, fiscales et même redistributives d'un pays d'accueil. Ainsi, utilisant la modélisation VAR à deux retards, nous nous sommes rendu compte dans cet article que ces flux de capitaux étrangers affectent, mais d'une manière mitigée, la qualité de la redistribution du revenu au Cameroun.

**Motsclés:** IDE, redistribution, concurrence fiscale, modèle VAR.

## I. INTRODUCTION

Le Cameroun paraît l'un des pays de l'Afrique subsaharienne les plus diversifiés sur les plans économique, culturel et social. C'est un pays de l'Afrique centrale dont les atouts sont hors du commun. Les richesses naturelles du sol et du sous-sol, les richesses maritimes et forestières, l'ouverture sur la mer et le niveau du bilinguisme sont quelques peu des exemples prégnants permettant d'une manière prémonitoire de spéculer sur la prospérité socioéconomique de ce pays d'Afrique centrale.

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Cependant, les rapports de certaines institutions nationales et internationales exhibent que ce pays, au même titre que certains de ses pairs d'Afrique situés au sud du Sahara, pâtit d'un certain nombre de difficultés inhérent au financement de son économie. L'organisation par ce pays d'une conférence internationale sur le financement du développement en mai 2016 sur le « thème investir au Cameroun terre d'opportunité » et la création de deux fonds par la Société Nationale d'Investissements pour le financement des infrastructures de base et le secours aux jeunes entreprises innovantes sont en outre quelques indices clignotant le besoin en fonds de financement du développement et de la croissance de ce pays.

Ainsi, dans ce contexte où les gouvernements des pays en développement se méfient des fardeaux de la dette (Ajayi, 2006), la recherche d'un mode de financement non génératrice des intérêts à verser aux créanciers paraît de plus en plus salutaire eu égard à la bonne santé des économies en développement (Zea et Lécuyer, 2018 et Campbell, 2017). Pour un bon nombre d'auteurs (Mainguy, 2004 ; Alaya et al., 2009 ; Jude, 2019 et Eka, 2019), la mobilité des flux des capitaux étrangers paraît comme une solution. Toutefois, la recherche de ce mode a un prix à payer qui est celui de mettre les pays en concurrence fiscale afin d'attirer les capitaux et dont les conséquences sont entre autres la baisse des recettes fiscales (Pfister, 2009 et Raspiller, 2009), l'élargissement de l'assiette fiscale au sein d'une économie et par ricochet, la détérioration de la qualité de la redistribution du revenu (Perkins et al., 2008; Keho, 2009 et Mankiw et al., 2013). C'est donc l'ensemble de ces constats qui nous amène à mener une réflexion.

D'ores et déjà, dans un environnement où les investisseurs étrangers se bousculent pour la recherche des nouvelles opportunités, où les pays d'accueil entrent en concurrence pour attirer les capitaux étrangers et où les tissus industriel et social de plusieurs pays, en l'occurrence ceux d'Afrique et d'Asie, paraissent moins et poreux, une observation endoscopique de cet environnement mérite d'être faite.



En effet, un regard attentif tourné vers le contexte socioéconomique des pays en voie de développement fait paradoxalement remarquer que ces derniers pâtissent d'une pléthore de difficultés financières et technologiques, mais jouissent d'une kyrielle de ressources naturelles.

Une fouille de la littérature économique récente ressort que les marasmes observés dans ces pays sont dans la plupart des cas tributaires d'un triptyque d'arguments et parmi lesquels le déficit de l'épargne nationale, la chute des prix des matières premières et la faiblesse du niveau et de la qualité des infrastructures de base. Deux des conséquences directes et immédiates de ce manque de ressources sont le tassement de la croissance (CEA, 2017) et la détérioration de la qualité de vie des populations de ces pays en développement (Lachaud, 2006).

Afin de pallier ces constats mélancoliques, une panoplie d'économistes s'estinterrogée sur les multiples voies et moyens pouvant aider les économies des pays en développement à sortir de leur situation de précarité pourrejoindre le rang des économies des pays développés. Ainsi, selon Jude (2019), Zea et Lécuyer (2018), Campbell (2017) et Wamba et al. (2017), l'idée néolibérale selon laquelle les pays pauvres doivent se ployer et adopter les stratégies de développement mises en place par les grandes puissances économiques revêt encore d'actualité. Selon Raffinot (2016) et Camara (2003), ces stratégies sont épistémologiquement ancrées dans un large corpus de débat opposant les néolibéraux aux néomarxistes. Les premiers sont issus de la lignée néoclassique et paraissent plus optimistes eu égard aux effets bénéfiques des capitaux étrangers sur une économie d'accueil. Les seconds quant à eux sont davantage d'obédience altermondialiste et se montrent pessimistes quant aux effets des flux extérieurs sur une économie.

Suivant Bourguignon et Verdier (2001), Mainguy (2004), Abessolo (2005), Ajayi (2006) et Ouattara (2009), les politiques d'ouverture économiques paraissent essentiellement la crème de ces stratégies de développement qui sont tant prônées par les libéraux.

Cet article, loin d'être original eu égard à l'analyse des effets des IDE sur les variables socioéconomiques d'une économie en développement, mais le paraît en tentant d'intégrer dans l'analyse les effets des entrées d'IDE sur la mobilisation des recettes fiscales et par ricochet sur le niveau et la qualité de la redistribution du revenu au Cameroun. En effet, restant à l'affût de l'actualité économique moderne, cette dernière semble montrer que, les Etats, en se livrant à une concurrence pour attirer les capitaux étrangers, diminuent leurs recettes fiscales (Pfister, 2009) qui sont très nécessaires pour le financement des infrastructures publiques et la redistribution du revenu (Raspiller, 2006; Raess, 2007 et Figazzolo et Harris, 2011).

Ainsi afin de ressortir les effets des IDE sur la qualité de la redistribution du revenu au Cameroun, cet article s'évertue à analyser d'une manière analytique et aussi empirique l'effet de la mobilité des IDE sur les variables redistributives de l'économie camerounaise et ce, à travers leurs effets sur les recettes fiscales. Pour ce faire, nous allons, dans le reste de ce papier présenter la revue de la littérature, ensuite, la méthodologie de l'étude et nous allons par la fin exhiber les résultats issus des estimations économétriques ainsi que leurs interprétations économiques.

## II. REVUE DE LA LITTÉRATURE SUR LE LIEN ENTRE L'IDE ET LES VARIABLES INHÉRENTES À REDISTRIBUTION

Comme il a été mentionné dès l'introduction de cet article, les controverses qu'il y a au tour des effets vertueux des capitaux étrangers et donc des IDE sur une économie en voie de développement a poussé une myriade d'auteurs à se pencher vers la problématique de l'efficacité sociale du mode de financement basé sur les IDE. Afin d'atteindre l'objectif qu'on s'est fixé dans cet article et qui consiste à analyser les effets d'IDE sur la qualité de la redistribution du revenu au Cameroun à travers le canal de l'assiette fiscale, nous ressortons tout dans cette section quelques soubassements théoriques et empiriques ayant permis de sous-tendre le lien existant entre la mobilité des IDE et la redistribution du revenu. Pour ce faire, la mise en relief des revues théorique et empirique mérite d'être faite.

### a) Revue théorique de la littérature sur le lien entre IDE, fiscalité et redistribution

De prime à bord et sans études approfondies et poussées, il paraît très rare de trouver la littérature théorique traitant des effets d'IDE sur les variables redistributives ou celles sociales d'une économie donnée. En effet, comme le précise Jasmin, les effets qualitatifs des IDE sur une économie d'accueil paraissent une tâche ardue et voire difficile à dégager. Cependant, l'examen endoscopique de quelques récents travaux sur la concurrence fiscale entre les Etats, séductrice de l'installation des firmes multinationale (Pfister, 2009 et Figazzolo et Harris, 2011), a permis aux théoriciens de l'économie de stipuler que les IDE pourrait affecter au même moment la qualité et la quantité de la croissance économique et notamment à travers ses effets sur la redistribution.

Dans cette section, quelques modèles et théories qui se sont évertués à expliquer la nature des effets d'IDE sur la qualité de la redistribution du revenu ont le mérite d'être exhibés.



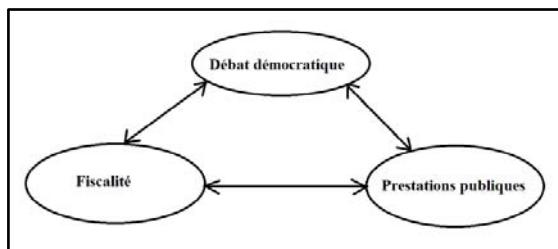
i. *Apports de quelques modèles théoriques à l'explication des effets d'IDE sur la qualité de la redistribution du revenu*

Certains auteurs, à travers leurs études portant sur les responsabilités sociales, sociétales et environnementales des firmes multinationales avancent que ces dernières peuvent affecter favorablement ou défavorablement le niveau et la qualité de la redistribution et de la croissance économique. à notre connaissance, quelques modèles théoriques ont concouru à expliquer la nature de ces responsabilités. Il s'agit du modèle de Foumagalli (2003)<sup>1</sup>, de celui de Verdier (2005), du modèle de Raess (2007) et enfin, celui de Renouard (2012). Dans cet article, nous allons nous évertuer à présenter les deux derniers types des modèles.

- Modèle de Raess (2007) et effet de dépendance envers les flux extérieurs des capitaux

Le modèle de Raess (2007) traite de la fiscalité et de la dépendance envers les flux extérieurs des capitaux. Ce modèle porte sur un triptyque constitué de la fiscalité, les prestations publiques et l'aptitude des pauvres à participer au débat démocratique dans leurs pays.

Cet auteur part d'un constat que la relation entre la fiscalité et les prestations publiques paraît un puissant mécanisme allocatif. Pour cela, il se pose la question de savoir comment les intérêts d'une population peuvent-ils être intégrés dans la politique budgétaire d'un gouvernement comptant sur les entreprises étrangères pour son développement ? Et lesquelles entreprises participent à hauteur de deux-tiers ou trois-tiers pour le financement des dépenses publiques dans ce pays dépendant des flux extérieurs. Pour parvenir à une gouvernance efficace de l'Etat où toutes les parties vont tirer leur épingle du jeu, Raess (2007) décrit le modèle contenu dans le schéma suivant :



Source: Raess (2007).

*Figure 1: Fiscalité, redevabilité et dépendance envers les flux extérieurs (IDE, APD)*

Dans ce modèle simplifié, trois dimensions sont mises en relation par l'auteur. La première dimension concerne le rapport entre la fiscalité et les prestations publiques. La deuxième est le de l'impact des débats

publics sur la détermination du taux d'imposition. Et la dernières des dimensions fait allusion à l'influence des débats publics sur la prestation des services publics de base à l'instar des routes, de l'eau et des hôpitaux.

Selon Raess (2007) si les pauvres sont dominants et politiquement actifs dans une société donnée, alors le pan du débat démocratique s'inclinerait du côté de la hausse des prestations des services. Laquelle hausse va nécessiter une augmentation des recettes fiscales. C'est ainsi que la politique d'attractivité des firmes étrangères à travers la baisse de la fiscalité viendra perturber l'efficacité de la gouvernance.

L'auteur arrive aussi à une conclusion que la politique d'attractivité des IDE basée sur la manipulation de la fiscalité dans les pays en développement ou dans les pays les moins avancés contribue négativement à la mobilisation des ressources fiscales dans ces pays et par conséquent peut impacter négativement la qualité de la croissance économique.

Si certains modèles se sont évertués à dénoncer l'effet néfaste des IDE du au comportement des gouvernements dans leur politique d'attractivité des flux des capitaux, d'autres par contre se sont plutôt coltinés à ressortir l'effet de ces flux étrangers à travers les responsabilités sociales, sociétales et économiques des firmes multinationales. C'est le cas par exemple des travaux cités dans Figazzolo et Harris (2011) et de l'étude menée par Renouard (2012) en ce qui concerne les responsabilités des firmes multinationales et notamment, le cas des firmes présentes en Afrique.

- Modèle théorique de Renouard et les responsabilités sociales et sociétales des entreprises étrangères

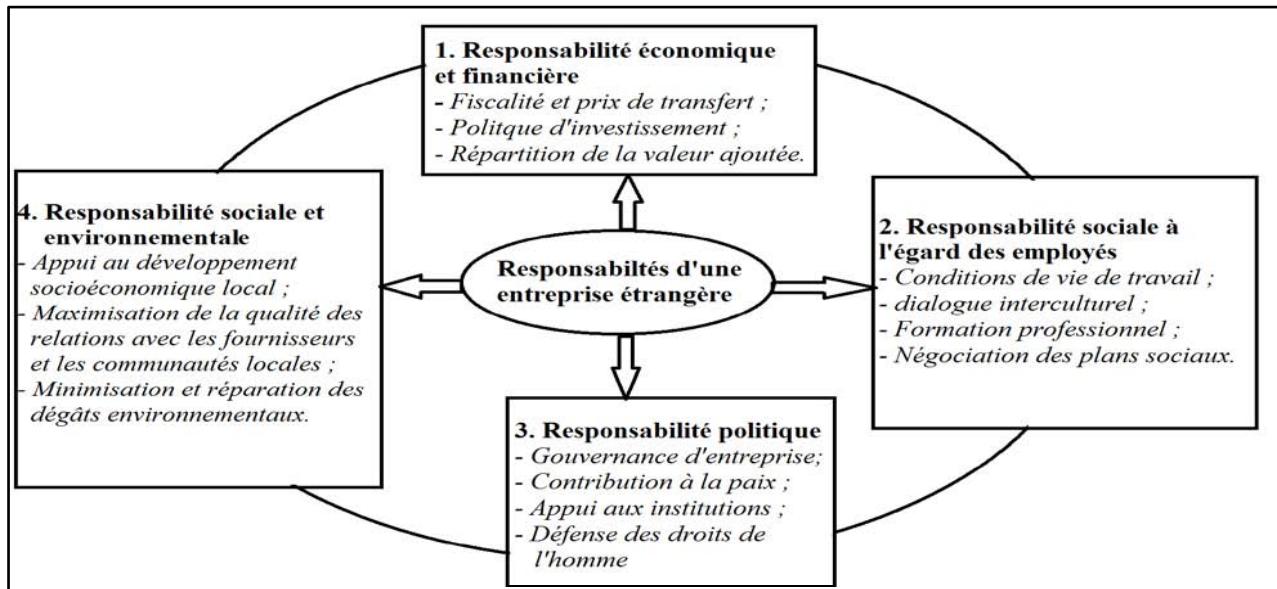
Selon Figazzolo et Harris (2011), à travers la responsabilité sociale et sociétale des entreprises, il se dégage dans la littérature économique une grosse tentative de conciliation entre la pratique des entreprises étrangères et le respect de la collectivité. Citant Elkington (1998)<sup>2</sup> , cet auteur précise que la responsabilité sociale des entreprises étrangères est connue selon l'approche de quatre « P », suivant laquelle, firmes multinationales assument quatre types de responsabilités à savoir le profit, le prix, les personnes et la planète. Selon Dahlby (2009) et Pfister (2009), la recherche des profits des multinationales devrait entraîner la mobilisation des recettes fiscales et contribuer au bout de la chaîne à la fourniture des services publics financés par ces ressources.

Ainsi, suivant les travaux de ces auteurs, nous allons dans cette étude présenter le modèle de Renouard (2012) qui paraît le plus complet et le plus exhaustif. La figure suivante ressort le résumé synoptique de ce modèle.

<sup>1</sup> Foumagalli (2003), cité par Jacques (2006).

<sup>2</sup> Elkington (1998), cité par Figazzolo et Harris (2011).





Source: Renouard (2012).

*Figure 2:* Différentes responsabilités socioéconomiques d'une firme multinationale

Afin d'expliquer les effets théoriques possibles de l'installation d'une multinationale sur la qualité de la croissance économique dans un pays, Renouard (2012) part de l'hypothèse que les grandes entreprises sont tout le temps interpellées à contribuer à la création de richesses, à la promotion de l'emploi local et à l'orientation de l'économie vers des nouveaux modèles industriels et économiques.

En effet, d'après cette auteure, la lutte contre la pauvreté est aujourd'hui indissociable à la question de l'activité des entreprises à l'international et surtout dans des pays en développement où la main d'œuvre est moins chère et disponible. C'est ainsi que cette auteure ressort dans un modèle quatre types de responsabilités à travers lesquelles un IDE investi par une firme multinationale peut affecter la qualité et les conditions de vie dans une économie d'accueil. D'abord, le premier type est relatif à la responsabilité économique et financière, ensuite, le deuxième type fait référence à la responsabilité sociale, en outre, le troisième type fait allusion à la responsabilité politique et le dernier type concerne la responsabilité environnementale.

Nous venons de voir dans les paragraphes précédents et à l'aide de certains modèles théoriques que l'activité d'une firme multinationale peut avoir un certain nombre d'effet sur les conditions de vie et la qualité de la croissance dans un pays d'accueil. À travers ces modèles, nous avons aussi constaté que le croisement des stratégies des firmes et de celles des Etats semble dégager certains effets qui pourraient affecter la mobilisation des recettes fiscales de l'Etat et par conséquent les dépenses publiques à caractère social. Les principales conclusions retenues dans ces modèles est que les interactions stratégiques entre les

firme et les Etats cherchant à les attirer détériorent dans la plupart des cas la qualité de la croissance économique. Dans les paragraphes suivants, nous allons nous orienter du côté des débats théoriques concernant les effets d'IDE sur la qualité de la croissance économique afin de mettre en évidence ces conclusions dans le cadre de l'économie camerounaise.

#### ii. Apports de quelques théories à l'explication des liens entre les IDE et la qualité de la redistribution du revenu

Comme il a été souligné dès l'introduction de cette étude, deux obédiences théoriques ont permis d'expliquer les effets possibles des IDE sur une économie d'accueil. Il s'agit d'un côté des idées des économistes libéraux et d'un autre côté, celles des économistes marxistes. L'école de la dépendance et celle de la modernisation sont respectivement les principales écoles qui ont permis la prolifération de ces idées (Camara, 2003). Selon Raffinot (2016), la première école est d'obédience hétérodoxe et nie toute vertu inhérente à la circulation du capital étranger. Par contre, la deuxième école est d'obédience orthodoxe et croit aux effets bénéfiques que pourraient engendrer l'installation d'un IDE.

- Contributions de l'école de la dépendance à l'explication de l'effet des stratégies de la mobilité des IDE sur la qualité de la croissance économique

Selon Camara (2003), la principale contribution de l'école de la dépendance dans le domaine des flux internationaux de capitaux a été de concentrer sa pensée sur les conséquences néfastes de ces flux sur une économie en développement. De ce fait, un bon nombre d'auteurs qui se sont manifestés, directement ou indirectement, partisans de cette école, ont

mentionné et soutenu que les différentes stratégies d'implantation adoptées par les IDE peuvent contribuer à détériorer à détériorer les conditions de vie des populations à travers la destruction des emplois et la baisse des recettes fiscales. Suivant donc ces idées, les économistes de la dépendance ont brandi deux effets indésirables des IDE sur les conditions de vie des populations d'une économie donnée. Les effets sont relatifs à l'impact négatif des IDE sur les entreprises et les emplois locaux. Ces effets sont appelés effet d'éviction dans la littérature économique (Jude, 2019). Et les deuxièmes effets quant à eux font allusion à la baisse des recettes fiscales qui résultent de la concurrence fiscale entre les Etats pour attirer les investisseurs étrangers (Raess, 2007; Pfister, 2009 et Raspiller, 2009).

- Contributions de l'école structuraliste à l'explication de l'effet des stratégies de mobilité des IDE sur la qualité de la croissance économique

Echaudemaison (2008) définit le structuralisme comme un ensemble des théories qui soutiennent qu'il existe des structures sociales et économiques qui ne sont pas observables dans les pays en voie de développement, mais qui génèrent des phénomènes sociaux et économiques observables. Ainsi, la présence des IDE dans certains secteurs stratégiques des pays en développement (Regnault, 2013), la détérioration des termes de l'échange causée par la division internationale du travail (Easterly, 2010), peuvent être considérés comme quelques exemples du structuralisme. Selon Amin (2002 et 2003), les structuralistes font la distinction entre les pays développés et les pays sous-développés. Les premiers sont appelés pays du centre et les seconds appelés pays de la périphérie. L'auteur précise que les pays du centre sont structurellement différents des pays de la périphérie et par conséquent, toute politique imposée par le centre pour promouvoir le développement de la périphérie sera vouée à l'échec. Raffinot (2016) précise que ce constat fondamental a amené les économistes structuralistes à rejeter les thèses orthodoxes selon lesquelles les pays sous-développés doivent suivre la voie des pays développés et que les IDE sont l'une des voies pouvant aider ces pays pauvres à sortir de leur précarité.

Critiquant les mécanismes de la division internationale du travail dans laquelle, les pays du centre et ceux de la périphérie produisent respectivement des biens industriels et des matières premières, Amin (2002) conclut que les avantages du commerce reviendraient aux pays du centre. En effet selon cet auteur et aussi Acemoglu et Robinson (2012) et Easterly (2010) ont précisé que les pays sous-développés de la détérioration des termes de l'échange. Ainsi, selon Raffinot (2016), cet argument de la détérioration des termes de l'échange a amené les

structuralistes à considérer le libre-échange comme dangereux pour les pays de la périphérie.

Comme solution à ce problème, Regnault (2013) ressort que les pays sous-développés ont adopté la stratégie d'industrialisation par substitution aux importations. Selon cet auteur, cette étape de l'industrialisation ne nécessite des technologies compliquées encore moins de la présence étrangère à travers les firmes multinationales.

- Contributions de l'école institutionnaliste à l'explication de l'effet des stratégies de la mobilité des IDE sur la qualité de la croissance

Acemoglu et Robinson (2012) définissent une institution comme une structure sociale qui est dotée d'une certaine stabilité dans le temps. Cherchant à justifier la persistance de la pauvreté dans les pays sous-développés, ces derniers ont mis un accent sur la fragilité des institutions dans ces pays. Selon, Camara (2003) cette fragilité des institutions peut s'expliquer par beaucoup des facteurs dans les pays en développement et parmi lesquels le comportement des élites.

Citant les pionniers de l'école institutionnelle, Raffinot (2016 et 2010), Perkins et al. (2008), et Camara (2003) ont chacun essayé d'expliquer l'apport de la thèse institutionnaliste dans le développement et la lutte contre la pauvreté dans les en développement. D'après Camara (2003), le sous-développement dans les pays pauvres s'explique par l'existence du cérémonialisme et de la présence des Etats dits mous.

Le cérémonialisme désigne tout comportement qui tend à contrecarrer le changement. Dans un pays cérémonialiste, les structures sociales attribuent des priviléges à certaines classes et conditionne la population à résister aux changements sociaux et économiques. Par contre, un Etat mou est un Etat qui n'est pas en mesure de mettre les institutions au service des populations mais au seulement, au service des couches sociales les plus riches.

Globalement, cette revue de la littérature théorique concernant les effets d'IDE sur une économie en voie de développement en permis de mettre en relief le débat théoriques entre deux grandes écoles à savoir, l'école orthodoxe d'une part et l'école hétérodoxe d'autre part.

- Revue empirique de la littérature sur le lien entre IDE, fiscalité et redistribution

De prime à bord et sans analyse poussée, il n'est pas aisément de dégager les effets empiriques de l'IDE sur la qualité de la redistribution et de la croissance car la littérature concernant ces effets n'est pas assez dense. À notre connaissance, les quelques contributions majeures sont celles de Ouattara (2009), Hussein et al. (2018) et de Mlachila et al. (2015), Mughal et Vechiu (2015) et Bekelynck (2017). Et pourtant, Perkins et al. (2008) ont souligné que les secteurs privés



ont largement contribué à l'accroissement de la croissance économique et à la réduction de la pauvreté dans les pays en développement et principalement à travers les IDE. Toutefois, la lecture de certains travaux et notamment ceux d'Alaya et al. (2009), Mainguy (2004), Camara (2003) et Dahlby (2009) ont permis à cette étude constater que l'IDE n'affecte pas généralement et d'une manière directe la qualité de la redistribution. Il existe un certain nombre de canaux de transmission à travers lesquels les effets d'IDE peuvent transiter pour affecter les variables sociales et qualitatives d'une économie d'accueil donnée. Ainsi, le canal des dépenses publiques et le canal des investissements domestiques sont quelques voies à travers lesquelles l'IDE peut affecter la qualité de la croissance économique et de la redistribution.

Selon la littérature empirique développée par Piketty (2015 et 2013), Figazzolo et Harris (2011), Robinson (2011), Harris (2011), Piketty (2011), Dahlby (2008), Kessler (2007), Madiès et al. (2005), Levasseur et Verdier (2005), Raspiller (2005) et Pfister (2009) sur l'imposition des IDE dans le monde, il se dégage que les activités des IDE dans un pays d'accueil peuvent affecter ses recettes fiscales.

En effet, selon certains théoriciens de la concurrence fiscale, les pays en développement, au nom de la recherche d'une croissance qualitative à travers l'attraction des IDE peuvent être entraînés à alimenter les paradis fiscaux. En accordant des vacances ou des cadeaux fiscaux aux entreprises étrangères et par ricochet sont tentés de réduire la mobilisation des recettes fiscales (Piketty, 2011 ; 2013 ; 2015 et Raspiller, 2005). D'autres soulignent la concurrence à laquelle se livrent les Etats à la recherche et l'attraction des capitaux mobiles investis par les multinationales peut leurs exposer à un problème de l'anti-sélection ou de la sélection adverse. Selon les partisans de cette idée, les Etats ne doivent compter sur le secteur privé pour fournir par lui-même le montant nécessaire pour une croissance de qualité et favorable aux pauvres. Selon Tamba (2017), le principe de la main invisible ne fonctionne pas lorsque les marchés sont soumis à la sélection adverse.

Piketty et Saez (2013), dans leur étude qui porte sur la fiscalité du 19ème siècle a essayé de décrire la théorie de la taxation optimale des capitaux étrangers et domestiques ainsi que les conséquences de la hausse du taux d'imposition sur les mouvements des facteurs mobiles et immobiles que sont les flux des capitaux et les mouvements de la main d'œuvre.

S'agissant de la théorie de taxation optimale, l'auteur précise tout d'abord qu'elle a permis de formaliser le dilemme entre l'équité sociale et l'efficience économique. Certains économistes à l'instar de Mankiw et Taylor (2013) ont souligné que la théorie de la taxation optimale permet de distinguer les socialistes des capitalistes. Ainsi, cherchant à analyser l'économie

sous sa dimension normative, les socialistes défendent l'idée selon laquelle les économies de marché peuvent, à travers la politique de la baisse des impôts et des taxations, peuvent susciter une baisse des transferts sociaux et contribuer à une aggravation des inégalités entre les individus. A l'inverse, selon les capitalistes, réduire les inégalités sociales du revenu à travers les transferts peut réduire l'activité économique et l'engloutir davantage. Au total, les socialistes ont brandi le problème social des inégalités pour défendre la politique incitative des impôts et les capitalistes mettent en avant l'aspect désincitatif de l'impôt.

Raess (2007) fait ressortir que dans le processus du développement, les questions fiscales se trouvent au cœur du rôle de l'Etat. Pour cela, l'auteur mentionne que tout échec relatif à ce domaine fiscal peut contribuer à nuire la qualité de la croissance et par conséquent, entraver le niveau de la pauvreté. Selon Tamba (2017) le domaine fiscal concerné en général les procédures et les modalités d'imposition, les recettes fiscales de l'Etat, les dépenses publiques ainsi que la gestion du déficit budgétaire. Raess (2007) mentionne encore que les pauvres sont les principaux bénéficiaires des prestations et des services publics de l'Etat. Une diminution des dépenses publiques peut se traduire par une aggravation du niveau de la pauvreté.

Tel qu'il a été mentionné dans les travaux de Raffinot (2016), Mainguy (2004), Camara (2003) et Manso-Preto (1982), les économistes hétérodoxes sont ceux qui critiquent les arguments de l'économie libérale. Samir Amin et Fernando Cardoso, Prebisch-Singer et Clarence Ayres paraissent parmi quelques économistes les plus marquants de cette thèse. L'idée défendue par ces derniers est celle que la politique menée par les grandes puissances comme les pays industrialisés contribue à bloquer le développement des pays pauvres.

Citant Bornschier (1983) qui a mis en évidence le rapport entre la mobilité du capital étranger et l'évolution des inégalités dans les pays en développement, Camara (2003) mentionne que cet auteur est l'un des premiers à soutenir que les IDE participent à réduire les inégalités dans les pays d'origine et à les augmenter dans les pays récepteurs. Samir Amin (2002), dans son article qui porte sur la mondialisation et l'apartheid, compare cette dernière et l'ouverture économique à l'impérialisme et dénonce par conséquent que les pays développés, qui sont au centre, se nourrissent des pays pauvres qui sont situés aux périphéries.

Selon Camara (2003), cherchant à justifier l'hypothèse qui sous-tend l'IDE comme source de domination de la périphérie et facteur de production des inégalités dans les pays en voies de développement, précise que la position d'un pays dans les relations économiques mondiales détermine son aptitude à distribuer les revenus issus des sources étrangères.

Parallèlement à cette vision, certains auteurs mentionnent que l'installation des firmes multinationales contribue à creuser davantage des inégalités car ces firmes emploient pour l'essentiel l'élite qui peut gagner jusqu'à dix fois le salaire moyen.

Selon Lahimer (2009), l'implantation des entreprises étrangères dans les secteurs stratégiques des pays en développement contribue le plus souvent à détruire les emplois non qualifiés au détriment des emplois qualifiés et des emplois hautement capitalistiques. Citant Tsai (1995), Camara (2003) ressort que la coalition entre l'Etat, les investisseurs étrangers et l'élite locale peut entraîner une entrave à la mise en œuvre des politiques distributives qui sont toujours plus favorables aux couches sociales les plus défavorisées. Allant dans le même sens, Bornschier (1983) précise que la coalition entre une classe minoritaire contre la majorité de la population contribue à marginaliser davantage cette dernière à travers le système de production mondial.

### III. CADRE MÉTHODOLOGIQUE DE L'ÉTUDE

Une revue des approches empiriques concernant les effets d'IDE sur la qualité de la croissance économique et de la redistribution a permis de mettre en relief un certain nombre des facteurs à travers lesquels, l'IDE pourrait affecter cette dernière. Pour ce faire, plusieurs modèles ont été utilisés par les chercheurs. Dans cette rubrique, nous allons d'une part spécifier le modèle économétrique et d'autre part, nous allons faire la présentation des variables.

#### a) Spécification du modèle économétrique et méthode d'estimation du modèle

Avant de spécifier notre modèle économétrique, nous allons d'abord faire une recension des approches ayant permis d'étudier la nature des relations entre la mobilité des flux de capitaux étrangers et les variables socioéconomiques d'un pays d'accueil. Cette recension des modèles permettra d'élaguer d'une manière critique les approches qui ne seront pas utiles dans le cadre du présent article.

##### i. Brève revue des approches empiriques

Un survol de la littérature empirique sur les effets de la mobilité des capitaux étrangers sur une économie d'accueil a permis de ressortir qu'il y a une pléthore d'approches ayant facilité les explications des effets potentiels de ces flux. Suivant cette littérature, il se dégage deux types de mécanismes de transmission à savoir le canal direct d'une part et le canal indirect d'autre part.

Le canal direct cherche à décrire les effets des capitaux étrangers et donc des IDE sur le niveau de l'emploi et le transfert technologique. Ce canal est dans la plupart des cas abordé dans les cas des modèles ayant comme cadre méthodologique des approches linéaires (Gohou et Soumaré, 2012 et Ouattara, 2009).

Le canal indirect par contre cherche à exhiber les mécanismes de transmission à travers lesquels un IDE pourrait affecter les variables socioéconomiques d'un pays donné. Les modèles récursifs de types VAR et les modèles structurels à équations simultanées paraissent principalement comme des approches les plus utilisées dans la littérature afin de capter les effets indirects des flux d'IDE sur une économie d'accueil (Lahimer, 2009). Selon Bourbonnais (2015), l'avantage lié à ces derniers modèles réside au fait qu'ils permettent simultanément d'apprécier les effets directs et aussi indirects d'une variable sur un ensemble d'autres variables à expliquer.

Toutefois, la littérature empirique fait mention de l'existence d'une certaine catégorie d'approche basée sur les modèles d'équilibre général calculable. D'après les travaux ayant utilisé ces modèles d'équilibre général calculable (Feubi et al., 2014 ; Mage, 2011 ; Piat, 2004 et Fofana et Cockburn, 2003), ces types de modèle permettent de proposer une analyse quantitative d'un problème de politique économique. Ainsi donc, l'analyse de ces modèles permet de spécifier d'une part, la politique de la demande et d'autre part, la politique de l'offre.

D'après Mage (2011), la force d'un modèle d'équilibre général calculable repose sur quelques facteurs et parmi lesquels son fondement théorique, sa capacité à mettre en évidence les mécanismes de transmission entre les différents phénomènes étudiés et son aptitude à arbitrer entre les politiques économiques et le bien-être des agents économiques. Selon Fofana et Cockburn (2003), en prenant en compte dans l'analyse les effets de la politique d'offre et celle des mécanismes de redistributions, ces modèles permettent d'expliquer et d'assurer les canaux essentiels de lutte contre la pauvreté.

Malgré les avantages accordés à ce modèle d'équilibre général, très peu d'études l'ont utilisé à notre connaissance pour déterminer les effets d'IDE sur économie à part l'étude effectuée par Pamén et al., (2014) pour dégager les effets des IDE sur l'accès à la terre et le marché foncier au Cameroun. Etant entendu dans la littérature que l'accès à la terre et le problème foncier paraissent quelques déterminants de la paupérisation.

Ainsi, autant il existe des approches méthodologiques permettant de capter les effets des IDE sur une économie d'accueil, autant ces approches connaissent quelques critiques inhérentes à leur modélisation. En effet, Selon Bourbonnais (2015), ce sont les critiques faites par Sims (1980)<sup>3</sup> à l'endroit des modèles structurels à équations simultanées qui ont laissé l'émergence des travaux sur la modélisation VAR. Cette étude, loin d'être boulistique quant au choix du modèle à estimer, va s'évertuer à utiliser un modèle



<sup>3</sup> Sims C. (1980), "Macroeconomics and Reality", *Econometrica*, 48, pp. 1-48, cité par Bourbonnais (2015).

récursif de type VAR afin de dégager les effets des IDE sur la qualité de la redistribution du revenu au Cameroun à travers le canal de la fiscalité. C'est ainsi que la présentation de ce modèle VAR ainsi que sa méthode d'estimation ont le mérite d'être exhibées dans le prochain point.

#### ii. Présentation d'un modèle VAR et méthode d'estimation

Nous allons d'un côté établir les écritures algébriques générale et spécifique d'un modèle VAR de cette analyse et d'autre part précisé sa méthode d'estimation.

- Formes générale et spécifique d'un modèle VAR de l'étude

Selon Bourbonnais (2015) et Nafiou (2016), la modélisation classique a connu beaucoup des critiques. C'est ainsi la formulation d'un modèle de type VAR permet apporte une réponse statistique à l'ensemble de ces critiques. La spécificité de ce modèle réside au niveau de sa capacité à expliquer un phénomène par ses propres valeurs passées et les valeurs passées des autres variables. Généralement, la forme algébrique d'un modèle se présente de la façon suivante où  $i$  varie de 1 à 2 dans cette étude.

$$Y_{it} = \beta_i + \rho_i Y_{it-1} + \alpha_i X_{it} + \theta_i Z_{it} + \varepsilon_{it}$$

Où  $Y_i$ ,  $X_i$  et  $Z_i$  représentent respectivement un ensemble de vecteurs des variables expliquées et explicatives. La section suivante fera la présentation de ces variables. De ce fait, on aura au total quatre (04) équations à savoir  $Y_1$  ;  $Y_2$  ;  $Y_3$  et  $Y_4$ . Ces grandeurs vont respectivement représentées les équations de l'investissement domestique en pourcentage du PIB (IDPIB), des dépenses publiques à caractère social en pourcentage du PIB (DPSPIB), de l'indice qualitatif de la croissance économique (IQC) et des flux d'IDE entrants au Cameroun.

L'équation de l'investissement domestique est inspirée de Lahimer (2009). Elle cherche à capter l'effet de l'IDE sur les investissements domestiques. En clair, elle s'évertue à dégager si la présence d'un IDE au Cameroun favorise la productivité et la compétitivité des entreprises locales (effet de stimulation ou effet de complémentarité), ou plutôt défavorise la performance de ces entreprises (effet d'éviction ou effet de substitution).

L'équation des dépenses publiques à caractère social par contre est inspirée du travail de Tamba (2017) et de Renouard et Lado (2013) et s'évertue à capter l'effet de l'IDE sur les dépenses publiques à caractère social, c'est-à-dire les effets des IDE sur la redistribution du revenu au Cameroun. Selon ces auteurs, deux familles des facteurs concourent à l'explication des dépenses publiques à savoir, les facteurs économiques et les facteurs non économiques. Les facteurs économiques font référence à l'accroissement du

revenu national et à sa répartition et à l'inflation (Tamba, 2017) ainsi qu'à l'évolution du niveau des recettes fiscales (Renouard et Lado, 2013). Cependant, les facteurs non économiques font allusion aux facteurs administratifs, politique ainsi qu'aux facteurs environnementaux.

Et enfin, l'équation de l'indice qualitatif de la croissance cherche à capter l'effet de l'IDE sur l'indice qualitatif de la croissance (IQC). Elle est inspirée des travaux d'Hussein et al. (2018), de Mlachila et al. (2015) et de Lahimer (2009).

Au total, nous construisons dans cet article un modèle VAR composé de quatre (04) équations. La première équation cherche à expliquer l'effet d'éviction ou de stimulation de l'IDE sur les investissements domestiques (Agosin et Mayer, 2000 et Lahimer, 2009). La deuxième équation s'évertue à expliquer quant à elle l'équation des dépenses publiques (Tamba, 2017). La troisième équation explique les déterminants de la qualité de la croissance économique à travers l'indice qualitatif de la croissance (IQC). Selon Mlachila et al. (2015) et aussi Hussein et al. (2018), cet indice permet de capter le caractère inclusif et pro-pauvre de la croissance économique dans les pays en développement. Et la quatrième équation cherche à capter les effets des autres variables sur l'attraction des IDE au Cameroun. Chacune de ces équations prises d'une manière individuelle, feront ultérieurement l'objet d'une étude spécifique. Mais à présent, nous allons d'abord évoquer la méthode d'estimation d'un modèle VAR.

#### • Méthode d'estimation d'un modèle VAR de l'étude

Selon Bourbonnais (2015), l'utilisation d'un modèle récursif à plusieurs équations est tributaire d'un certain nombre de protocole relatif aux techniques et procédures d'estimations. Ces différentes techniques qui précèdent les estimations permettent de définir la méthode d'estimation à utiliser. Pour Nafiou (2016), l'estimation d'un modèle VAR nécessite au moins trois étapes très importantes à suivre et parmi lesquelles, la spécification de ce modèle, la détermination de l'ordre de d'intégration des variables et la détermination du nombre de retard optimal à considérer dans le modèle. Ainsi d'après une pléthore des travaux, l'estimation d'un modèle VAR spécifié peut se faire suivant deux méthodes à savoir la méthode MCO équations par équations et celle du maximum de vraisemblance.

#### b) Présentation des variables et signes attendus des paramètres

Le tableau 1 suivant récapitule l'ensemble de variables utilisées dans cet article afin de dégager les effets des capitaux étrangers sur la redistribution de revenu au Cameroun à travers le mécanisme de la concurrence fiscale.

*Tableau 1:* Présentation des variables et signes attendus de leurs paramètres

Variables	Travaux ayant utilisé la variable	Sources de données de la variable	Signe attendu des paramètres
Flux d'IDE entrants en % du PIB ( <i>IDE ffixn PIB</i> )	Jude (2019); Eka (2019); et Lahimer (2009).	Base de données de la CNUCED	(+) sur toutes les variables endogènes
Stocks d'IDE en % du PIB ( <i>IDE stock PIB</i> )	Lahimer (2009) et Ouattara (2009)	Base de données de la CNUCED	(+) sur toutes les variables endogènes
Investissement domestique en % du PIB ( <i>IDPIB</i> )	Jude (2019)	Perspectives Monde (Université de Sherbrooke)	(+) sur toutes les variables endogènes
Dépenses publiques à caractère social en % du PIB ( <i>DPSPIB</i> )	Tamba (2017) et Mlachila et al. (2015).	Assemblée Nationale du Cameroun et l'INS-Cameroun	(+) sur <i>IDPIB</i> et <i>IQC</i> , mais (-) sur les <i>IDE</i>
Indice qualitatif de la croissance ( <i>IQC</i> )	Hussein et al. (2018) et Mlachila et al. (2015).	Calculé à partir de données de Perspectives Monde	(+) sur toutes les variables endogènes
Taux de scolarisation au secondaire ( <i>TSCOL</i> )	Ouattara (2009); Lahimer (2009); Esso (2005).	Perspectives Monde (Université de Sherbrooke)	(+) sur toutes les variables endogènes
Epargne brute en % du PIB ( <i>EPARGPIB</i> )	Mainguy (2004)	Perspectives Monde (Université de Sherbrooke)	(+) sur toutes les variables endogènes
Taux d'inflation ( <i>TxINFL</i> )	Lahimer (2009)	Perspectives Monde (Université de Sherbrooke)	(-) sur toutes les variables endogènes
Logarithme du PIB ( <i>LPIB</i> )	Mlachila et al. (2015) et Ouattara (2009).	Perspectives Monde (Université de Sherbrooke)	(+) sur toutes les variables endogènes
% de la population urbaine ( <i>POPURB</i> )	Magombeyi et Odhiambo (2018)	Perspectives Monde (Université de Sherbrooke)	(+) sur les <i>IDE</i> et <i>IQC</i> , mais (-) sur les <i>DPS</i> et <i>ID</i>
Taux d'accroissement de la population ( <i>TCPOP</i> )	Magombeyi et Odhiambo (2018)	Perspectives Monde (Université de Sherbrooke)	(+) sur les <i>DPS</i> , mais (-) sur <i>IQC</i> et les <i>ID</i>
Recettes fiscales en % du PIB ( <i>RFiscPIB</i> )	Figazzolo et Harris (2011); Pfister (2009) et Raspiller (2007)	Assemblée Nationale du Cameroun et l'INS-Cameroun	(+) sur les <i>DPS</i> , les <i>ID</i> et <i>IQC</i> , mais (-) sur les <i>IDE</i>

Source : auteurs de l'étude à partir de la littérature.

*Notes explicatives du tableau:* les variables *IDE*; *ID*; *IQC* et *DPS* de la dernière colonne du tableau qui est consacrée aux signes des paramètres représentent respectivement les flux et stocks d'IDE (*IDE*); les investissements domestiques au Cameroun (*ID*); l'Indice qualitatif de la croissance calculé dans l'étude (*IQC*) et les dépenses publiques à caractère social.

Afin de ressortir empiriquement les effets des IDE sur la qualité de la redistribution du revenu au Cameroun, nous avons compilé l'ensemble de ces données dans le logiciel Excel et puis les avons exportées dans le logiciel STATA 12. Cet outil d'analyse de données nous a permis d'une part d'effectuer des tests préliminaires inhérents à l'étude des séries temporelles tels les tests de causalité et de stationnarité, et d'autre de réaliser l'estimation du modèle VAR retenu de l'étude. La section suivante aura le mérite de présenter les différents résultats obtenus.

#### IV. RÉSULTATS ET DISCUSSIONS ECONOMIQUES

Dans la présente section, nous allons nous évertuer à exhiber les différents résultats issus des estimations économétriques avant de procéder aux discussions économiques de ces derniers.

##### a) Présentation et analyse des résultats économétriques

Nous allons d'une part ressortir les résultats du test de stationnarité des variables et ceux indiquant le nombre du retard optimal à considérer dans le modèle,

et d'autre part, les résultats des estimations économétriques du modèle VAR de l'analyse.

##### i. Résultats du test de stationnarité et détermination du retard optimal

Avant de présenter le nombre du retard optimal à intégrer dans le modèle, nous allons d'abord exhiber les différents résultats issus du test de stationnarité de PP.

##### • Résultats du test de stationnarité

La littérature économétrique (Bourbonnais, 2015 et Nafiou, 2009) a permis de distinguer jusqu'à deux types de test permettant de mener l'étude de la stationnarité des variables de séries temporelles. Il s'agit du test de Dickey-Fuller augmenté (ADF) et de celui de Phillips-Perron (PP). Dans le cadre de cet article, nous avons utilisé le dernier test et ce, à cause de sa dominance par rapport au test ADF (Bourbonnais, 2015). Le tableau 2 suivant fait la recension des différents résultats de stationnarité issus du test PP.



*Tableau 2:* Résultats des tests de racine unitaire de Phillips-Perron (PP)

Variables	TEST DE PHILIPS-PERRON (PP au seuil 5%)				Ordre d'intégration
	En niveau		En différence première		
	Valeurs des statistiques	Valeurs critiques	Valeurs des statistiques	Valeurs critiques	
<i>IDPIB</i>	-1,337021	-2,945842	-5,657575	-2,948404	<i>I</i> (1)
<i>DPSPIB</i>	-6,646179	-2,945842	-	-	<i>I</i> (0)
<i>IQC</i>	1,544684	-2,945842	-3,029105	-2,948404	<i>I</i> (1)
<i>LPIBH</i>	-1,532898	-2,945842	-3,371468	-2,948404	<i>I</i> (1)
<i>LPIB</i>	-0,952893	-2,945842	-5,210453	-2,948404	<i>I</i> (1)
<i>TSCOL</i>	2,132351	-2,945842	-5,027147	-2,948404	<i>I</i> (1)
<i>IDEstockPIB</i>	-0,127219	-2,945842	-5,540310	-2,948404	<i>I</i> (1)
<i>IDEfIxitPIB</i>	-5,386160	-2,945842	-	-	<i>I</i> (0)
<i>EPARGPIB</i>	-1,842415	-2,945842	-5,423313	-2,948404	<i>I</i> (1)
<i>TxINFL</i>	-4,593594	-2,945842	-	-	<i>I</i> (0)
<i>POPURB</i>	-3,257709	-2,945842	-	-	<i>I</i> (0)
<i>RFiscPIB</i>	-2,074738	-2,945842	-4,930270	-2,948404	<i>I</i> (1)
<i>TCPOP</i>	-1,121233	-2,945842	-1,711700	-2,948404	<i>I</i> (2)

Source: Auteurs de l'étude à partir du logiciel STATA 12.

A l'issue de ces résultats, nous constatons que la plupart des variables sont intégrées en différence première. Cependant, les variables telles les dépenses publiques à caractère social en pourcentage du PIB (DPSPIB), les flux des investissements étrangers (IDEfIxitPIB), l'inflation (TxINFL) et la part de la population urbaine dans la population totale (POPURB) sont intégrées à niveau. Par contre, la variable captant le taux d'accroissement de la population est intégrée en différence deuxième. Globalement, nous constatons que les variables de ce modèle sont d'ordre d'intégration différent. Et comme le précisent

Bourbonnais (2015) et Nafiou (2009), si dans un modèle VAR, les variables n'ont pas le même niveau d'intégration, alors il faut d'abord avant toute estimation déterminer le nombre optimal de retard à considérer. Le prochain point aura le mérite de ressortir le nombre optimal du décalage à considérer.

- Détermination du retard optimal

Les résultats fournis par STATA 12 indiquent que le retard optimal à intégrer est de deux décalages (voir tableau 3 suivant).

*Tableau 3:* Détermination du nombre du retard optimal

Selection-order criteria								
Number of obs = 34								
lag	LL	LR	df	P	FPE	AIC	HQIC	SBIC
0	350.189				1.2e-13	-18.4817	-17.9306	-16.8656*
1	365.747	31.116	16	0.013	1.3e-13	-18.4557	-17.6596	-16.1213
2	390.634	49.773*	16	0.000	1.0e-13*	-18.9784*	-17.9374*	-15.9257

Endogenous: D.IDPIB D.DPSPIB D.IQC IDEfIxitPIB  
Exogenous: D.IDEstockPIB D.TSCOL D.EPARGPIB TxINFL D.LPIB POPURB D2.TCPOP  
D.RFiscPIB \_cons

Source: Calculs des auteurs à partir de STATA 12.

Suite à quoi, nous avons enfin estimé notre modèle VAR à deux retards. Les résultats issus de ces estimations sont consignés dans le tableau 4 qui vient.

#### ii. Résultats issus des estimations d'un modèle VAR à deux retards

Le tableau 4 ci-dessous ressort les différents résultats issus de l'estimation d'un modèle VAR à deux décalages de cette étude.

*Tableau 4:* Récapitulatifs des résultats des estimations des effets d'IDE sur la qualité de la redistribution du revenu au Cameroun par le biais du canal fiscal et à l'aide d'un modèle VAR

Variables explicatives	(1) Chi2 = 40.7532 p>chi2 = 0,0006 R <sup>2</sup> = 0,5452	(2) Chi2 = 75.5055 p>chi2 = 0,0000 R <sup>2</sup> = 0,6895	(3) Chi2 = 641.3362 p>chi2 = 0,0000 R <sup>2</sup> = 0,9497
	<i>IDPIB</i>	<i>DPSPIB</i>	<i>IQC</i>
	Coefficients (t-student)	Coefficients (t-student)	Coefficients (t-student)
Constante	-0,0450 (-1,36)	0,2270** (2,52)	-0,0716*** (-3,53)
D.IDPIB (-1)	0,0997 (0,56)	0,3646 (0,76)	-0,2603** (-2,40)
D.IDPIB (-2)	-0,2747* (-1,66)	-0,6862 (-1,53)	0,1019 (1,01)
DPSPIB (-1)	0,1126** (2,09)	-0,8777*** (-5,98)	0,1681*** (5,10)
DPSPIB (-2)	0,2107** (2,52)	-1,1062*** (-4,87)	0,1915*** (3,74)
D.IQC (-1)	-0,1196 (-1,18)	0,0816 (0,30)	0,1914*** (3,08)
D.IQC (-2)	0,1113 (0,90)	0,4428 (1,32)	0,0565 (0,75)
<i>IDEfixinPIB</i> (-1)	0,3957 (1,57)	-1,2337* (-1,80)	-0,3318** (-2,15)
<i>IDEfixinPIB</i> (-2)	0,0217 (0,10)	-1,2425** (-2,12)	0,3966*** (3,00)
<i>IDEstockPIB</i>	-0,0144 (-0,08)	0,6586 (1,34)	0,0812 (0,73)
D.TSCOL	0,0025* (1,91)	0,0017 (0,49)	0,0107*** (12,93)
D.EPARGPIB	0,0047*** (3,16)	0,0096** (2,36)	0,0056*** (6,17)
TxINFL	0,0018** (2,22)	-0,0075*** (-3,26)	0,0019*** (3,78)
D.LPIB	0,0403 (0,41)	0,7772*** (2,94)	0,4667*** (7,85)
POPURB	0,0007 (1,00)	-0,0042** (-2,17)	0,0013*** (3,12)
D.D.TCPOP	0,3109 (1,25)	0,8208 (1,22)	-0,5759*** (-3,80)
D.RFiscPIB	-0,0007 (-1,54)	-0,00003 (-0,05)	-0,0001 (-0,42)

Source: auteur de cette étude.

Note: (\*\*\*) , (\*\*) et (\*) représentent respectivement les significativités à 1%, 5% et 10%.

L'ensemble des précédents résultats nous ont permis de mener quelques discussions économiques inhérentes au rôle des IDE sur la redistribution du revenu à l'aide du biais du canal fiscal. La section suivante va se coltiner de ressortir ces discussions.

#### b) Interprétations et discussions économiques des résultats

Tel qu'il a été mentionné plus haut, les effets d'IDE sur la qualité de la redistribution du revenu dans cette étude vont transiter par leurs effets sur la fiscalité. Toutefois, dans cet article, nous avons pris en compte trois types de variables indicatrices de la redistribution à

savoir, l'indice qualitatif de la croissance, les dépenses publiques sociales et les investissements locaux. L'effet des IDE sur chacune de ces variables permet d'indiquer par ricochet leurs effets sur la qualité de l'éducation, de la santé et sur la nature des relations qui pourraient exister entre les firmes étrangères et celles locales. Va-t-il s'agir d'un effet d'éviction ou de stimulation.

Concernant tout d'abord, en ce qui concerne les investissements domestiques, nous constatons que ces flux d'IDE les affectent positivement pendant que les stocks de ces flux les affectent négativement. Les effets positifs peuvent être expliqués dans la littérature économique comme des effets de stimulations des IDE



sur l'économie locale (Jude, 2019 et Lahimer, 2009). A ce niveau, nos résultats embrassent les prédictions théoriques de l'école de la modernisation défendue par les économistes orthodoxes. En effet, pour ces derniers, l'insuffisance de l'épargne, l'écart technologique et la faible compétitivité des entreprises des pays en voie de développement seraient en grande partie dus au manque d'innovation et des investissements en recherche et développement (Ajayi, 2006).

Parlant des innovations, Aghion et Antonin (2017) soutiennent que les IDE peuvent constituer un grand bloc permettant aux pays pauvres de bénéficier des mécanismes de destruction créatrice de Schumpeter. Nos résultats corroborent ceux dégagés par certains auteurs à l'instar de Wamba et al. (2017) et Pogue et Bernasconi (2013) ; et nuancent d'autres résultats comme ceux de Jude (2019) et Kasule et al. (2015).

En effet, portant leurs études sur la performance des entreprises étrangères au Cameroun, Wamba et al. (2017) ont trouvé que les investissements directs étrangers, mesurés par la présence du capital étranger dans le capital local, contribue positivement à la performance de ces entreprises à capitaux étrangers. Parallèlement, Pogue et Bernasconi (2013) ont aussi trouvé que la présence du capital étranger dans le climat d'affaire camerounais a été bénéfique pour un bon nombre d'entreprises nationales. Par contre, Jude (2019) et Kasule et al. (2015) ont trouvé que les IDE affectent rarement les économies les entreprises des pays en voie de développement car ils sont dans la plupart des cas orientés vers les activités extractives.

D'après la littérature économique, l'effet positif des IDE sur les investissements locaux d'un pays d'accueil peuvent par ricochet affecter les conditions de vie des ménages. Mankiw et Taylor (2013) et Keho (2008) ont précisé que l'amélioration des conditions de vie des populations est intimement liée à la prospérité des activités économiques dans ce pays. Ces conclusions nous font présager que les IDE peuvent booster les secteurs sociaux au Cameroun et par conséquent affecter favorablement la qualité de vie dans ce pays. Mais avant de conclure, nous allons une fois de plus apprécier la nature des effets des IDE sur les dépenses publiques à caractère social au Cameroun.

Ensuite, concernant les dépenses publiques, il est mentionné dans la littérature qu'il n'est pas aisément d'observer à première vue la nature de l'effet d'IDE sur l'évolution de ces dépenses et surtout sur celles à caractère social. Cependant, après avoir parcouru les travaux traitant des mécanismes de la concurrence fiscale pour attirer les IDE, cette étude s'est effectivement rendue compte que les dépenses publiques peuvent être affectées par la mobilité des flux de capitaux. Dans cette rubrique, nous cherchons à comparer nos résultats à la lumière de ceux défendus par certains auteurs à l'instar de Figazzolo et Harris

(2011), Dahlby (2008), Raess (2007) et Raspiller (2005). Selon ces auteurs, au fur et mesure que les Etats vont afficher un comportement séducteur pour attirer les entreprises étrangères, alors cela peut davantage affecter leur capacité à mobiliser les recettes tirées des impositions de ces firmes. Et pourtant, d'après Pfister (2005), les pays en voie de développement ceux de la CEMAC, financent leurs investissements publics à base de recettes fiscales tirées de l'activité des entreprises locales ou étrangères.

Compte tenu de nos estimations, notre étude dégage un effet négatif des flux, mais un effet positif de stocks d'IDE sur les dépenses publiques à caractère social. Cela traduit au fur et à mesure que les évolutions des flux d'IDE sont croissantes au Cameroun, les dépenses publiques baissent relativement d'une manière moins que proportionnelle. Cependant, notre étude dégage un effet positif mais non significatif des stocks d'IDE sur les dépenses publiques. Ces résultats ne s'écartent pas de ceux qu'on vient juste de citer au paragraphe précédent. Nos résultats corroborent aussi la théorie de Wagner et celle de Peacock et Wiseman développées par Tamba (2017) et selon lesquelles, les dépenses publiques orientées vers le volet social sont de nature croissante dans les économies en voie de développement si ces dépenses ne sont pas affectées par d'autres perturbations d'ordre économique ou sécuritaire. Dans cette étude, l'attraction des IDE et la lutte contre les fraudes fiscales et l'exode des capitaux peuvent bien évidemment constituer des perturbations auxquelles font face la mobilisation des recettes publiques au Cameroun.

A la lumière de ce qui précède, deux types de présomptions peuvent s'afficher : le premier est relatif aux effets positifs des IDE sur les investissements domestiques et le type fait allusion aux effets mitigés des IDE sur les dépenses publiques à caractère social et qui sont de nature à réduire la pauvreté. Une question peut donc se dégager à ce niveau qui est celle de savoir l'effet réel des IDE sur la qualité de la croissance économique au Cameroun.

Enfin, s'agissant des effets d'IDE sur la qualité de la croissance économique, il se dégage dans cet article que les flux et les stocks d'IDE l'affectent différemment. S'agissant des flux d'IDE, les résultats ressortent qu'ils influencent négativement l'indice qualitatif de la croissance au Cameroun. Ce résultat négatif pourrait avoir une explication. En effet, d'après ce que nous venons de présenter précédemment, il s'était dégagé que les IDE affectent négativement les dépenses publiques à travers les mécanismes de la concurrence fiscale entre les Etats pour attirer ces flux. Or dans notre indice qualitatif de la croissance économique, trois dimensions avaient retenu notre attention à savoir, l'éducation, la santé et les dépenses de consommations finales des ménages. Les deux premières dimensions représentent par excellence des

dimensions qui nécessitent davantage le financement par les dépenses publiques. Cependant, nous avons trouvé précédemment que les flux d'IDE affectent négativement ces dépenses publiques au Cameroun. D'où l'effet négatif des flux d'IDE sur la qualité de la croissance économique au Cameroun.

Par contre, nos résultats révèlent que les stocks d'IDE affectent favorablement et de façon très significative la qualité de la croissance économique au Cameroun. Ce résultat corrobore celui trouvé par Mlachila et al. (2015). Ce résultat peut s'expliquer à travers l'impact positif des IDE sur les investissements domestiques et qui à leur tour affecte favorablement les dépenses de consommation finales des ménages. Et ces dernières constituent l'une des trois dimensions de l'indice de la qualité de la croissance au Cameroun.

## V. CONCLUSION

Dans cet article, il est question de dégager les effets d'IDE sur la redistribution du revenu au Cameroun. Pour ce faire, nous avons suivi une logique ayant permis de convoquer un dytique de controverses théoriques et empiriques. Ensuite, l'ensemble de ces controverses ont constitué un cadre analytique de base dans lequel ce corpus a été développé. Au confluent de ces logiques analytique et contextuel, un cadre méthodologique a été développé qui est celui de appel à un usage des modèles économétriques de type VAR.

Toutefois, au regard de ce qui précède, nous constatons qu'autant le poids de la littérature justifiant la nature des effets d'IDE sur la qualité de la croissance et de la redistribution est maigre et mitigée, autant nos résultats concernant ces effets au Cameroun sont aussi mitigés. Mais toutefois, ces résultats semblent nous montrer que les effets de long terme des IDE sont plus prégnants que ses effets de court sur la qualité de la croissance économique. A ce niveau, deux conclusions majeures peuvent être retenues. La première conclusion est relative à la prégnance des effets de long terme qui peuvent être interprétés comme les transferts de la technologie (Jacques, 2006) et la seconde conclusion peut être vue du côté de réinvestissement des bénéfices par les firmes étrangères au Cameroun. Ainsi, bien que les effets d'IDE soient mitigés au Cameroun, il se dégage que les effets de long terme l'emporte sur les effets de court terme. Par conséquent, le gouvernement camerounais se doit d'assainir son climat d'affaire pour attirer les firmes étrangères et est tenu de réviser sa politique fiscale afin d'éviter la double imposition qui est un frein à la mobilité des capitaux étrangers.

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# Puratchi Thalaivi Amma's Medical Insurance Scheme - A Boon for the Despondent Unorganized Sector - A Preliminary Case Study on The Penetration of Private Insurance Companies on the Unorganized Sector of Chennai City

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*Indian Institute of Technology Madras*

**Introduction-** The Insurance sector plays a vital role in the planned economic development, as it not only aims to boost saving habit; but also become a safety-net both for the rural and urban sector. It also aims to generate long-term funds for infrastructural development. Besides, Insurance protects enterprises against risks such as fire and natural calamities. For the general public insurance comes to their aid towards health care, life, property and pension. Therefore, insurance growth and development is synonymous to the growth of an economy wherein it not only safeguards the interest of the industry but the general public as well.

**Keywords:** risk coverage, unorganised sector, puratchi thalaivi amma medical insurance scheme, dr. jayaraman jayalalitha, bharat ratna dr. marudhur gopalamenon ramachandran.

**GJHSS-E Classification:** FOR Code: 149999



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# Puratchi Thalaivi Amma's Medical Insurance Scheme – A Boon for the Despondent Unorganized Sector – A Preliminary Case Study on The Penetration of Private Insurance Companies on the Unorganized Sector of Chennai City

M. Mohan Kumar<sup>a</sup>, Dr. P. Thiagarajan<sup>o</sup> & P. Sarvaharana<sup>p</sup>

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## I. INTRODUCTION

The Insurance sector plays a vital role in the planned economic development, as it not only aims to boost saving habit; but also become a safety-net both for the rural and urban sector. It also aims to generate long-term funds for infrastructural development. Besides, Insurance protects enterprises against risks such as fire and natural calamities. For the general public insurance comes to their aid towards health care, life, property and pension. Therefore, insurance growth and development is synonymous to the growth of an economy wherein it not only safeguards the interest of the industry but the general public as well.

## II. INSURANCE PENETRATION IN INDIA

It is reported in The Economic Survey that insurance penetration of India has increased to 3.4% as against 2.71% in 2001. When compared to Asia such as Malaysia (4.77%), Thailand (5.42%) and China (4.77%) the insurance penetration in India is low. The survey further says that India's insurance density has increased to \$59.7 from \$11.5 in 2001 – with life insurance density of \$46.5 and general insurance density of \$13.2 (1).

## III. STATUS OF UNORGANIZED SECTOR

It is rather disheartening to note that among the 47 crore total work force of India 85% or 39 crores

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belong to unorganized sector. Workers in the unorganized sector have either formal or informal employment, but without social security benefit. Though the employment generation programs of the government are on the anvil the reality is that majority of the workforce relies the unorganized sector, for their employment. How they are engaged what type of employment are open to them (as far as Chennai City is concerned) and their income level is discussed in the later part of this paper.

## IV. GOVERNMENT EFFORTS

The Government had enacted the Unorganized Workers Social Security Act, 2008, which implements different social security schemes for the unorganized sector workers by introducing social security Act. Under this Act 2,08,33,673 people receive pension under Indira Gandhi National Old Age Pension Scheme; 1,75,52 people receive National Family Benefit Schemes as on 31.3.2015; 1,04,16,164 people are benefitted by Janani Suraksha Yojana as on 31.3.2016; 52,34,799 people were benefitted by the National Scheme for Welfare of Fishermen and Training and Extension as on 31.03.2015, 3,50,62,923 people were benefitted by Rashtriya Swasthya Bima Yojana as on 30.09.2016; and about 4,51,07984 people are benefitted by Atal Pension Yojana as on 20.7.2016; 2,6,00,000 people are benefitted by Pradhan Mantri Jeevan Jyoti Bima Yojana (as on 31.05.2016) and 9,43,00,000 people are benefitted by the Pradhan Mantri Suraksha Bima Yojana as on 31.5.2016) (2).

The above schemes are meant for health and life coverage of the rural peasants. The researcher made an attempt to conduct an empirical study on the insurance practice followed by the unorganized urban workers in Chennai city. Ganesh Dash and Tulika Sood in their empirical study construe that many a people associate life insurance product with death and not as a

tool of investment. Dr. Ganesh Dash and Tulika Sood further describe five basic needs under which the general public are joining insurance schemes and they are Protection; Aid to thrift; Liquidity; Tax relief; Money when you need it (3).

#### a) Objective of the Study

The objective of the study is to understand the penetration of the private sector insurance companies among the different segment of unorganized sector of Chennai city and the extent the unorganized sector utilizes the welfare measure introduced by Puratchi Dr.Thalaivi Jayaraman Jaya Lalitha towards Heath Insurance scheme specifically designed for the people belonging to the Below Poverty Line (BPL).

#### b) Scope of the Study

It is a fact that the insurance companies, through their life cover mitigate the risk of the consumers. Also by providing general insurance schemes, it creates endowments so that the money can be utilized for future expenses like marriage of the daughter or construction of house or children's higher education. It is an unassailable fact that in all the above activities, the consumer forfeits their present expenditure and aims for a secured life in the future. Countries like India, wherein saving habits are very less among the unorganized sector who are mostly living below poverty line and certainly leading a dangerous life without social security. When 85% of the total work force in India belong to unorganized sector and live a life of mouth to hand, staring at the sky for their next square meal, the present study would help to understand the state of affairs of the unorganized sector in Chennai city and how they mitigate their risk and the role of the state government in giving its helping hand in terms of comprehensive free health coverage and thus giving an helping hand to people living below poverty line to improve their living condition.

#### c) Methodology Adopted for the Study

The unorganized sector does not have regular employment the claim of the economic survey 2018 is that India's life insurance penetration was about 2.27% and General Insurance penetration was 0.77% when compared to global insurance penetration of 3.47% for

life and 2.81% for general insurance. Taking the above 0.77% General insurance penetration of the country the researcher made an honest attempt to conduct survey in the unorganized sector of Chennai city. From the various research works and from the available statistics by means of published work we have categorized the unorganized sector workers in the following manner:-

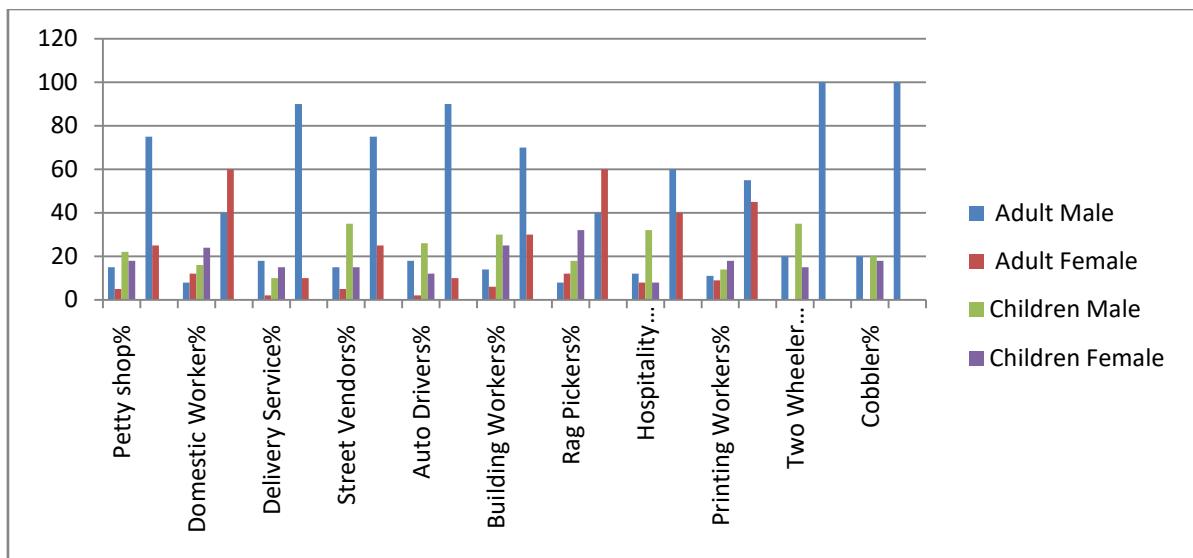
Petty shop; Domestic Workers; Delivery Service; Street Vendors; Auto Drivers; Building workers; Rag Pickers; Hospital Assistants; Printing workers; Two Wheeler Mechanic; Cobblers

The above categories certainly cover the entire gamut of unorganized sector of Chennai city. We have prepared a Questionnaire to elicit information from the above targeted group scattering all parts of Chennai. The strategy was to collect at least 20 feed-back from each category so that adequate representation among the group has been maintained. As indicated above 220 Questionnaires were obtained from the above 11 categories of the unorganized sector, the demographic details of the respondents are given in Table -1 which indicates gender wise, education wise, age wise, occupational wise, marital status wise, income wise details. The analysis was made with the use of excel application software to generate both percentage table as well as bar diagram. We have not used Anova for the present study as the aim of the study is not to predict permutation and combination of factors that might influence the unorganized sector to increase their enrolment towards insurance schemes with the private sector insurance companies as the strategy of these companies does not seem to attract the masses from the unorganized sector owing to their monetary propensity to mitigate their risks and it is the State Government which came forward to help the unorganized sector labour force with its laudable welfare scheme that calls for this study and makes possible its commitment towards equity and social justice and politicians, sincere social thinkers and economists look at this scheme with awe and majesty. The conclusion of this research work would substantiate the above inference.

Tabulation on Low Income Un-organised Sector Respondents and their family size

		Tabulation on Low Income Un-organised Sector Respondents and their family size																					
Sl. No.	Details	Petty shop%		Domestic Worker%		Delivery Service%		Street Vendors%		Auto Drivers%		Building Workers%		Rag Pickers%		Hospitality Assistants%		Printing Workers%		Two Wheeler Mechanic%			
		Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%		
1	Adult Male	15	75	8	40	18	90	15	75	18	90	14	70	8	40	12	60	11	55	20	100	20	100
2	Adult Female	5	25	12	60	2	10	5	25	2	10	6	30	12	60	8	40	9	45	0	0	0	0
Total		20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100
3	Children Male	22		16		10		35		26		30		18		32		14		35		20	
4	Children Female	18		24		15		15		12		25		32		8		18		15		18	
Total no. of children		40		40		25		50		38		55		50		40		32		50		38	

Graphical Representation of the above data



*Interpretation*

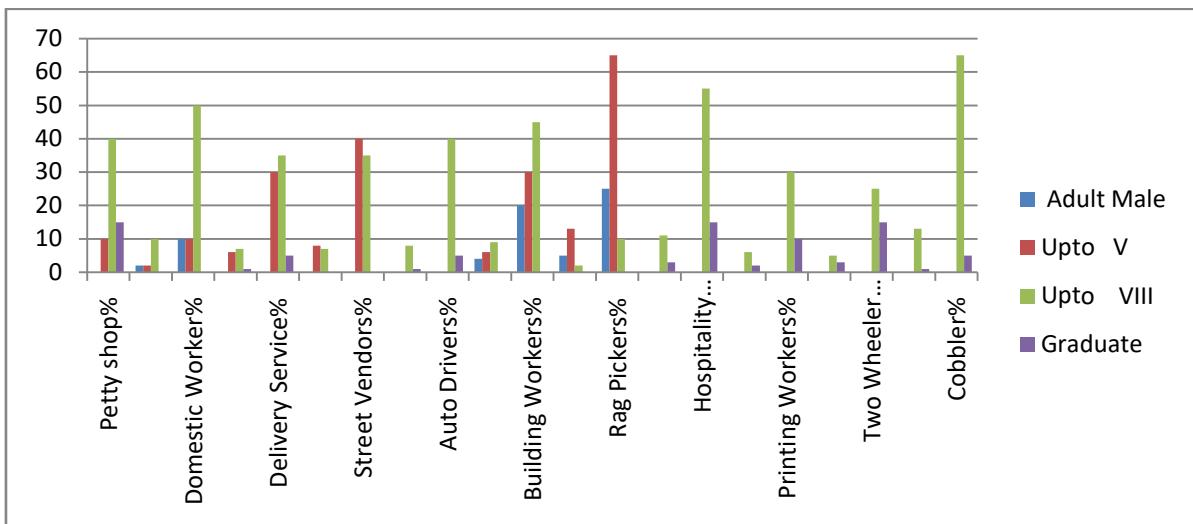
The above table shows the family size. The family size of the street vendors, two wheeler mechanic and building workers are more when compared to other category. On an average each family consist of not less

than two children. When the family size is four and with single income affordability towards insurance scheme and saving habit becomes almost impossible.

Education Details of the Respondents

Sl. No.	Details	Education Details of the Respondents																			
		Petty shop%		Domestic Worker%		Delivery Service%		Street Vendors%		Auto Drivers%		Building Workers%		Rag Pickers%		Hospitality Assistants%		Printing Workers%		Two Wheeler Mechanic%	
		Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%
1	Adult Male	0	0	2	10	0	0	0	0	0	0	4	20	5	25	0	0	0	0	0	0
2	Upto V	2	10	2	10	6	30	8	40	0	0	6	30	13	65	0	0	0	0	0	0
3	Upto VIII	8	40	10	50	7	35	7	35	8	40	9	45	2	10	11	55	6	30	5	25
4	Upto X	7	35	6	30	6	30	5	25	11	55	1	5	0	0	6	30	12	60	6	30
5	Graduate	3	15	0	0	1	5	0	0	1	5	0	0	0	0	3	15	2	10	3	15
	Total no. of children	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100

Graphical Representation of the above data



### Interpretation

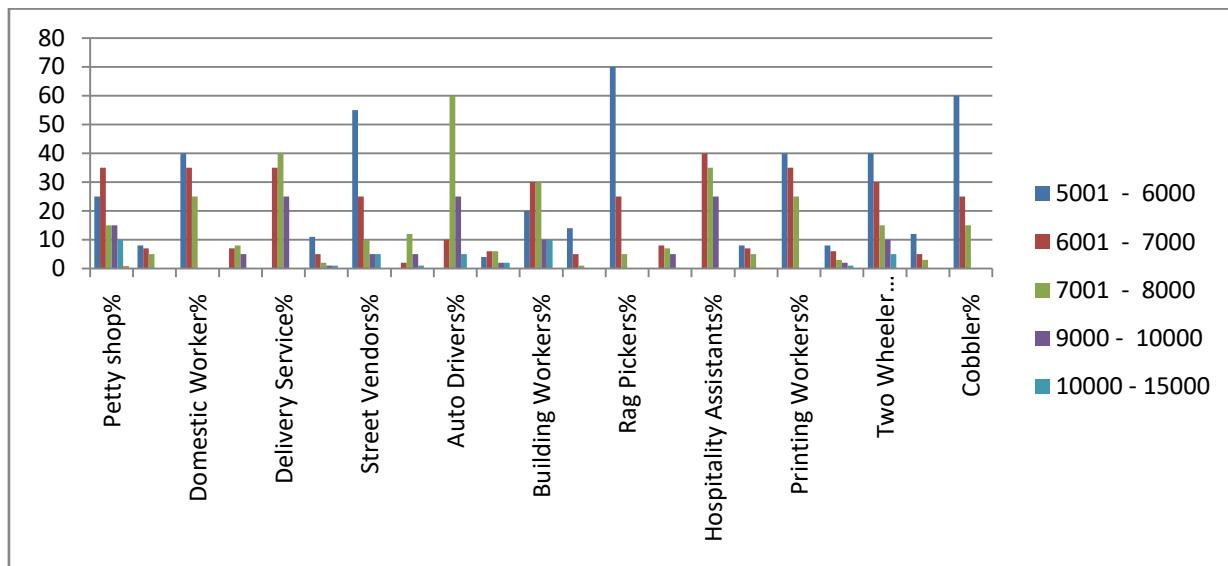
Apart from domestic workers, building workers, Rag pickers other category are educated. There are graduates among the petty shop traders (15%); Delivery Service (5%); Hospitality Assistants (15%); Printing

Workers (10%); Two wheeler Mechanics (15%); Cobbler (5%), the study shows that majority of the unorganized sector are atleast studied up to VIII standard and the persons who are matriculate range from 35% to even 60%.

Income level of the Respondents

Sl. No.	Monthly income	Income level of the Respondents																			
		Petty shop%		Domestic Worker%		Delivery Service%		Street Vendors%		Auto Drivers%		Building Workers%		Rag Pickers%		Hospitality Assistants%		Printing Workers%		Two Wheeler Mechanic%	
		Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%
1	5001 - 6000	5	25	8	40	0	0	11	55	0	0	4	20	14	70	0	0	8	40	8	40
2	6001 - 7000	7	35	7	35	7	35	5	25	2	10	6	30	5	25	8	40	7	35	6	30
3	7001 - 8000	3	15	5	25	8	40	2	10	12	60	6	30	1	5	7	35	5	25	3	15
4	9000 - 10000	3	15	0	0	5	25	1	5	5	25	2	10	0	0	5	25	0	0	2	10
5	10000 - 15000	2	10	0	0	0	0	1	5	1	5	2	10	0	0	0	0	0	1	5	0
total	total	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100	20	100

Graphical Representation of the above data



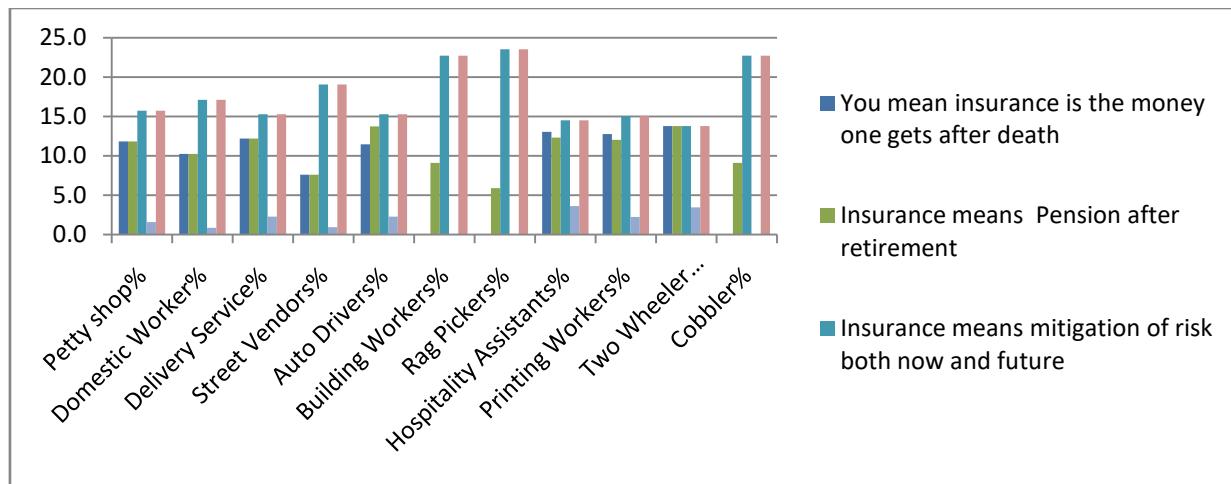
### Interpretation

32% of the unorganized sector's income level are between Rs.5000 to 6000/- per month. The cumulative percentage of the entire population earning an income from Rs.10,000 to 15,000/- are only 3%. The

person who are earning between Rs.6000 to Rs.8000 per month are 55%. This shows the affordability towards their future welfare is less though the literate level is 85%.

Awareness of Insurance Schemes by the Respondents

Sl. No.	Details	Petty shop%	Domestic Worker%	Delivery Service%	Street Vendors%	Auto Drivers%	Building Workers%	Rag Pickers%	Hospitality Assistants%	Printing Workers%	Two Wheeler Mechanic%	Cobbler %
1	You mean insurance is the money one gets after death	11.8	10.3	12.2	7.6	11.5	0.0	0.0	13.0	12.8	13.8	0.0
2	Insurance means Pension after retirement	11.8	10.3	12.2	7.6	13.7	9.1	5.9	12.3	12.0	13.8	9.1
3	Insurance means mitigation of risk both now and future	15.7	17.1	15.3	19.0	15.3	22.7	23.5	14.5	15.0	13.8	22.7
4	Are you subscribing to private insurance	1.6	0.9	2.3	1.0	2.3	0.0	0.0	3.6	2.3	3.4	0.0
5	Do you aware of the various insurance schemes offered by the private insurance companies.	15.7	17.1	15.3	19.0	15.3	22.7	23.5	14.5	15.0	13.8	22.7
	Total	57	56	57	54	58	55	53	58	57	59	55



### Interpretation

The above table proves the awareness of the respondent towards insurance schemes – perhaps their family size and income level becomes a stumbling block towards affordability of joining insurance schemes. Though the above interpretation on the compilation of family size, education, income and awareness of the

insurance scheme reveals the fact of despondency but what is encouraging is the respondents under unorganized sector availing the Health Insurance Scheme called the Amma Medical Insurance scheme provided to every family whose income is below Rs.72,000/- per annum i.e. BPL (4).

		Chief minister's comprehensive health insurance scheme availed by the respondents																					
Sl. No.	Details	Petty shop		Domestic Worker		Delivery Service		Street Vendors		Auto Drivers		Building Workers		Rag Pickers		Hospitality Assistants		Printing Workers		Two Wheeler Mechanic			
		Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%		
1	Are you beneficiary of the medical insurance offered by the government of Tamilnadu	12	60 %	15	75 %	7	35 %	16	80 %	2	10 %	10	50 %	19	95 %	8	40 %	15	75 %	14	70 %	17	85 %
2	If so are you satisfied with the services extended by the private hospital	12	60 %	15	75 %	7	35 %	16	80 %	2	10 %	10	50 %	19	95 %	8	40 %	15	75 %	14	70 %	17	85 %
3	Are you treated on par with the other patients who are not covered under the medical insurance scheme	12	60 %	15	75 %	7	35 %	16	80 %	2	10 %	10	50 %	19	95 %	8	40 %	15	75 %	14	70 %	17	85 %

### Interpretation

As can be seen above that 60% of the Petty Shop owners, 75% of the domestic workers; 80% of the street vendors; 95% of Rag pickers and 85% of the Cobblers among the unorganized sector are availing the Medical Insurance Scheme provided by the State Government of Tamil Nadu. One can also see that percentage of delivery service; auto drivers; building workers are less because of the income ceiling contemplated by the Amma Medical Insurance Scheme which is meant only for the people coming under Below Poverty Line (BPL).

In other words, almost all the respondents whose income is below Rs.72,000/- from the unorganized sector of Chennai city are benefitted by one of the most well thought of welfare scheme that enables the poor among the poors to enter in the portals of Corporate private hospitals for their medical needs

otherwise they cannot dream for such a facility less to say about their affordability.

In view of the equitable aim of the health scheme, it is imperative to understand about this scheme that targets only the poor among the poors i.e. the people who are suffering and who come under BPL and it certainly substantiates their medical needs with their meager income.

## V. ABOUT THE SCHEME

This Scheme was launched by the Government of Tamil Nadu in 2014 with a noble ambition to provide free medical and surgical treatment to the members of any family whose cumulative annual family income is less than Rs.72,000/- with a only condition of producing an income certificate issued by the revenue department. The scheme intended to provide medical coverage up



to Rs.1,00,000/- per family per year on a floater basis for the following ailments:

Cardiology and cardiothoracic Surgery; Oncology; Nephrology/urology; neurology and neuro surgery; ophthalmology; Gastroenterology; Plastic Surgery; E.N.T; Gynaecology; Haematology.

Later the Government extended the financial limit from Rs.1.00 lakh to Rs.1.50 lakhs. There are two other covers apart from the hospitalization which are meant for Follow-up Treatment and Additional Diagnostic procedures.

This holistic health insurance scheme aimed towards welfare measure for the poorest the poors show benevolence and extraordinary care taken on the poors of the economy that reflects the ideology of Dravidar Iyakkam which aims for equity and social justice to prevail in the society. The personality behind such humanitarian and merciful act is none other than former Hon'ble Chief Minister of Tamil Nadu Selvi Dr. Jayaraman Jayalalitha respectfully known as Manbumigu Amma (mother).

Besides the above, steps were taken by the Government to arrange for free health camps by network hospitals through an user-friendly system which assures that all the eligible patients can avail this facility without any hurdle. The relevant website of the Government gives all the information besides a 24 hour



Born on 24 February, 1948 at Melukote, in Pandavapura Taluka, Mandya district, then in Mysore State, Jayaraman Jayalalitha was educated at Bishop Cotton School at Bangalore and later the Presentation Convent at Chennai. She had to stay away from her mother in Mysore and longed for her mother's love; that became more predominant in her mind even when she was shifted to Chennai. She chose to be alone always because of her straight forwardness who prepared to

Call Centre has been set up with sufficient manpower with toll free help line. The Toll Free Line (1800 425 3993) is competent to answer the query in the vernacular language. Importantly, the official website of the Health Department of the Government that gives statistical details that bewilders, wherein the number of beneficiaries crossed the target level of 1.5 crores population belonging to below poverty line covering the entire districts of Tamil Nadu. The above are the salient features of the Amma Medical insurance scheme which was in operation from 2014 onwards floated with a view to cover the economically poor of the society.

#### *Life History of AMMA in brief\*:*

*The terminology AMMAis synonymous in the hearts of millions of Tamils for whom she was the only savior not only nourished with assured welfare schemes and she worked for them in the name of an undisputed slogan that shines like the northern star "Makkal Naan" Makkalukkagave Naan" Ungalal Naan – Ungalukkakave Naan". "I am empowered by the people and I exist for them alone" is the near translation of the great phrase reverberating for decades that assured a sense of belonging to the people that this Chief Minister exist for us – she will take care of our welfare-there will be schemes every time Ammaopens her mouth in the legislative assembly to the consternation of every legislator.*

*\*We mention brief here because it is a fallacy in belief to construe that even a big book running to pages cannot characterize the intricate intricacy of the sacrifice made by Amma to uplift the party after the demise of its leader, the great MGR" and the firm conviction Amma determined to undertake the noble phrase " Makkal Naan – Makkalukkagave Naan" are not mere words but born out of pure and eternal love for people of Tamil Nadu. This should not be construed to be born out of her ego because of the use of a common noun I. There is a ocean of difference between superfluous words coming out of oneself from exalted egoistic state than that comes out from the bottom of the heart of benevolence. It is the reflection of gratitude and benevolence that matters not the usage of a phrase that had great impact on the people who depend on this impeccable leader.*

face truth boldly. Though her class mates in Presentation Convent decried her by quoting her mother's smaller role in the films (not a great heroine) but Ammu (Jayaraman Jayalalitha) silenced them by her noble character of obeying the commands of her teachers and topping everyone in all the subjects. This approach made her critiques' to think twice before they decry her.

Acting in the films was not a cup of tea for Amma - nor did she liked it; neither that of her mother's wish. Her mother Smt. Sandya was a great sacrificer who taken upon herself to cinema just to support her children's study after the death of her husband Sri. Jayaraman. Sandhya however refused many times to send her daughter to act in movies when many chances knocked their door, at the time when Amma was in school. It was indeed fate that came in the form of opportunities that never seemed to leave Amma who otherwise had great dreams either to become a doctor or an IAS officer or even a lawyer. Always fate wins, in this case also, because it knew that Amma is destined to become a scintillating heroine who is going to carve a niche in setting great example of an actress by her impeccable and flawless acting (putting her heart and soul) in every role she played in more than 140 films in Telegu, Malayalam, Hindi and English. Indeed Amma was a versatile singer and Carnatic dancer too. Later, she also became a writer with several published short stories and novels at her credit (5). Politics was not an accident to Amma as she herself exclaimed (her own words):

The stamp of impeccable quality that was maintained in the story, lyrics and tunes of songs makes Puratchi Thalaivar Dr.MGR fans to watch his movies even after 29 years of his demise.



The chaste combination continued in politics as well	The ever green combination "MGR-JJ"	After 49 years this movie ran for 175 days – a record in Tamil Cinema
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A leading English Daily exclaimed that "Despite several new films seeing the light of the same day, the freshly minted 49-year-old blockbuster opened in over 120 screens all over the state. In a near-packed standalone downscale cinema hall in Chennai, many who turned up for the noon show seemed to have already seen and savored the film when it was released first in 1965. In the 14-seater box, where the ticket rate is as high as Rs.50, almost everyone should be over 50 years. *It started during the title scene and then went on during the mellifluous song sequences and some moments of 'meaningful' dialogue delivery.* As a film that should have been ahead of its time in terms of technical excellence and also in creating a do-gooder image for MGR, Aayirathil

"*It will not be an exaggeration to say that Aayirathil Oruvan has laid foundation for my entry into politics...it was my first film with MGR ... the film gave me an opportunity to meet and interact with him...and this film has left with me an unerasable life-time experience,*" the Hon'ble Chief Minister of Tamil Nadu Puratchi Thalaivi J.Jayalalitha said in her message sent to Divya Films G Chokkalingam, who took pains for the re-release of this movie in digital form after a gap of half a century. September 1 marked the 175<sup>th</sup> day celebrations of the screening of the digital version of the movie. Amma further said that "*This film enjoyed the successful screening of over 100 days in 1965 now it has crossed 175 days it shows that the movie has withstood the test of time...even now, it attracts present generation too to the theatre this has proved that Aayirathil Oruvan has achieved what the new films have failed to*".

Oruvan portrays its swashbuckling hero as a committed leader of the people, ready to make any sacrifice for his followers. The movie also saw its leading woman J Jayalalithaa, giving a sterling performance with impeccable dialogue delivery. The crowd savored every moment, fully engrossed in the action and drama and enjoying the melodious music, tapping foot and swaying their heads. No catcalls, no hooting's, no loud comments and no jokes. The crowd was there to watch the movie" (6).

#### Amma Enters Politics

Bharat Ratna Dr. Maruthur Gopalamenon Ramachandran (MGR) the then Chief Minister of Tamil Nadu wanted Jayaraman Jayalalitha as his successor.

Dr.MGR brought Dr. Jayalalitha, who had acted in 28 films along with him, to lead the party, and strongly believed, that Amma had the fire power, to lead the party from the front. To a question from the senior Minister; MGR replied, every creation, will have a future dissolution, and when there is a development, there should be recession. After me, to take our objectives further, and sustain its development and fame, Ammu (Selvi Jayalalitha was affectionately called as Ammu by MGR) alone can do it. If I hand over the reign of this party to others, I will be doing a great discredit to Anna quotes Balu Manivannan (pp 75). This prediction, had become a reality, when MGR was admitted in Brooklyn Hospital, USA, Amma single handedly campaigned Tamil Nadu Elections and made AIADMK victorious(7).

Dravida Kazhagam firmly rooted for the implementation of Mandal Commission report, which was later adopted by the V.P. Singh led government in 1990. One of the significant achievement that was made under the premise of equity and social justice was the 69% reservation for the other back ward classes, adopted by the iron hearted Revolutionary Leader Selvi J. Jayalalitha during her tenure as the Chief Minister of Tamil Nadu that earned the title of "Woman Saviour of Social Justice" and entered in the portals of the annals of history of the great Dravidar lyakkam which is envied even by her friends too (8). The following are the top welcomed schemes of AMMA's current rule (9):

- Amma Unavagam (Canteen)
- Amma Kudineer (Water)
- Chennai Small Bus
- Amma Pannai Pasumai Shops (Nugavor Kootturavu Kadai) In Chennai (Farm Fresh Consumer Outlets)
- Health Insurance For Sri Lankan Tamil Refugees
- Free Mixie, Grinder & Fan
- Monthly Pension For Transgenders
- Amma Tnfdc Fish Stall Chennai
- Free Rice (20kg) For The Poor
- Free Laptop For Students

The 2014 victory of Mullaperiyar dam case in Supreme Court in May 2014 that allowed Tamil Nadu to raise its water level to 142 feet that had greatly helped the agricultural community; canteens with subsidized food called Amma Unnavagam for the homeless. Apart from the mid-day meal scheme, Amma introduced breakfast meals across government schools and the agile care taken to mitigate power shedding through solar energy including providing 200-750 units of free electricity to handloom and power loom weavers rose the eyebrows of the opposite parties. Amma was lauded for ensuring huge investments, in the two day Global Investors Meet in Sep.2015 as she achieved a towering task of investment to the tune of Rs.2.42 lakh crores.

According to the government website, 4 grams of gold with Rs 25,000 towards marriage assistance

have been given to 86,676 educated poor women, and her return to power (successfully for the consecutive second time) she increased the quantity of giving gold from 4 to 8 gms. Rain water harvesting, the cradle baby scheme and total ban on all lotteries including online and killing of dreaded poacher and sandalwood smuggler Veerappan are hall mark of excellent administration displayed by this eminent Chief Minister who worked on the three syllables "Peace"- "Wealth" and "Welfare".

It was a fact that Amma never forget her mentor Bharat Ratna Dr. Marudur Gopalamenon Ramachandran as can be seen from the following sayings:

*"People enjoy happiness by praising MGR as Ponmana Chemmal, Puratchi Thalaivar; Makkal Thilagam, Idayakkani. The three syllables MGR itself is a mantra. The three syllables give us mental strength when we think about it; and when we chant, it gives courage. In the film industry and in politics, it is our leader Puratchi Thalaivar who planted the victory flag. We can see great people in the history of every country who work for the upliftment of the poor and oppressed day in and out. MGR is not only equivalent to such leaders of the world who has qualities beyond these great leaders. When we think of such historical leader who has been gifted to us by God himself we are elated with tears of joy in our eyes. He stood as the heart's fruit (Idayakkani) of Peraringer Anna who was responsible for the growth of DMK and stood as its root and nourishment. The pride goes to Puratchi Thalaivar MGR who worked day in and out to alight DMK Party to the throne to rule Tamil Nadu. To establish equity and justice in the society, to provide education to all; to provide mid-day meal to every school going children; to provide justice to the down trodden and deprived people; to weed out corruptive practice in the society; to drive out bad elements from the society; and to establish peoples rule thereby enabling the benefits of the development activities to reach the unreached and to attain these through peaceful means devoid of violence MGR entered in politics. In politics and in administration the changes MGR made have entered in the annals of history and stands as a silent revolution. It is because of the popular schemes that were implemented by Dr.MGR during his rule in Tamil Nadu he lives in the hearts of people even this day" (10). The articulate Chief Minister, a multi-talented versatile personality with bounty of benevolence certainly reminds us a great verse from the Bagavat Gita Chapter 10 (41) "Certainly wherever and whatever is majestic, beautiful or magnificent, you must know that all these arise from my glory".*

#### *Findings of the Research work*

It becomes evident that though the emperical study does not give an encouraging result but the conclusion is escapable that:

- Majority of the respondents who are minimum school level educated and aware of the benefits of the various insurance schemes floated by the private insurance companies but could not afford to take insurance because of their low income level.
- As evident from the survey that less than 1% of the respondent have taken insurance from the unorganised sector which is more than the national mark.
- 60% of the Petty Shop owners, 75% of the domestic workers; 80% of the street vendors; 95% of Rag pickers and 85% of the Cobblers among the unorganized sector are availing the Medical Insurance Scheme provided by the State Government of Tamil Nadu.
- One can also see that percentage of delivery service; auto drivers; building workers are less because of the income ceiling contemplated by the Amma Medical Insurance Scheme which is meant only for the people coming under Below Poverty Line (BPL).

Sen and Jean Dreze in their 2013 book, *An Uncertain Glory: India and its Contradictions*, these economists (Amartya Sen and Jean Dreze) devoted a number of pages to Tamil Nadu's progress over the past 30 to 40 years in terms of social development. The following excerpts from the book on Tamil Nadu's development trajectory are reproduced for the purpose of research analysis (11). Tamil Nadu is another interesting case of a state achieving rapid progress over a relatively short period, though it started from appalling levels of poverty, deprivation and inequality. Throughout the 1970s and 1980s official poverty estimates for Tamil Nadu were higher than the corresponding all-India figures, for both rural and urban areas (about half of the population was below the Planning Commission's measly poverty line). Much as in Kerala earlier, social relations were also extremely oppressive, with Dalits (scheduled castes) parked in separate hamlets (known as 'colonies'), generally deprived of social amenities, and often prevented from asserting themselves even in simple ways like wearing a shirt or riding a bicycle, it was during that period that Tamil Nadu, much to the consternation of many economists, initiated bold social programmes such as universal midday meals in primary schools and started putting in place an extensive social infrastructure – schools, health centres, roads, public transport, water supply, electricity connections, and much more. Today, Tamil Nadu has some of the best public services among all Indian states, and many of them are accessible to all on a non-discriminatory basis.

They also say that these states are just 'outliers' overlooks the fact that their respective development trajectories, despite many differences, have shared features of much interest. First, active social policies

constitute an important aspect of this shared experience. This is particularly striking in the vigour of public education, but it also extends to other domains, such as health care, social security and public amenities. Second, these states have typically followed universalistic principles in the provision of essential public services. This is especially noticeable in the case of Tamil Nadu. The basic principle is that facilities such as school education, primary health care, midday meals, electricity connections, ration cards and drinking water should as far as possible be made effectively available to all on a non-discriminatory basis, instead of being 'targeted' to specific sections of the population. In fact, in many cases the provision of essential services and amenities has not only been universal but also free.

They also state that dealing with social inequality has also been an important part of these shared experiences. In each case, the historical burden of social inequality has been significantly reduced in one way or another. In Kerala and Tamil Nadu, principles of equal citizenship and universal entitlements were forged through sustained social reform movements as well as fierce struggles for equality on the part of underprivileged groups – especially Dalits, who used to receive abominable treatment and have to continue their battle to reverse the old handicaps altogether. While Sen and Dreze do not specifically name or credit any politician it is an undisputed fact that Manbumigu Amma Selvi Jayaraman Jayalalithaa was the 11th, 14th, 16th, 18th and 19th chief minister of the state spread spanning 15 years; indeed played an important part in Tamil Nadu's development, as did others. Others are: Amma's Political mentor the Bharat Ratna Marudhur Gopala Menon Ramachandran her predecessor; Dr. Kalainger Karunanidhi and Peraringer Anna.

The above establishes the fact that the tireless efforts made by Puratchi Thalaivi Manbumigu Amma in bringing schemes with a view to uplift the poors as part of the political ideology of Dravidar Iyakkam under the ambit of equity and social justice. It is here one should understand the ideology of Dravidar Iyakkam the equity and social justice enunciated the iron-hearted EV Ramaswamy Periyar belovedly known as Thanthai Periyar.

## RECOMMENDATIONS

The study establishes the fact that provision of comprehensive medical insurance scheme free of cost to the people belonging to below poverty line certainly enhances the concept of equity and social justice beyond the provision of reservation in the job and educational opportunities. It is the avowed scope of the researchers, if the ceiling is increased say to Rs.1.00 lakh the greater people belonging to lower rung of the income level can be brought under such a welfare scheme thoughtfully implemented by the former Chief

Minister Puratchi Thalaivi Dr. Jayaraman Jayalalitha and justified her commitment to the people of Tamil Nadu who had voted her to power for the second term.

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# Decomposition of Economic Growth in Uzbekistan

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**Abstract-** The purpose of this paper is to decompose the economic growth of Uzbekistan between 2009-2018 using Cobb-Douglas production function and the value added method. The results show that even though the growth of capital resources has been a key factor in ensuring economic growth of Uzbekistan in recent years, the total factor productivity and labor provided comparatively marginal but consistent contribution to the economic growth over the years.

In terms of sectors, services and manufacturing have been one of the key factors of economic growth during the involved period, while the significance of agriculture in provision of economic growth has been decreasing during the recent years.

*GJHSS-E Classification:* FOR Code: 910103



DECOMPOSITION OF ECONOMIC GROWTH IN UZBEKISTAN

*Strictly as per the compliance and regulations of:*



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# Decomposition of Economic Growth in Uzbekistan

Umida Yakubjanova

**Abstract-** The purpose of this paper is to decompose the economic growth of Uzbekistan between 2009-2018 using Cobb-Douglas production function and the value added method. The results show that even though the growth of capital resources has been a key factor in ensuring economic growth of Uzbekistan in recent years, the total factor productivity and labor provided comparatively marginal but consistent contribution to the economic growth over the years.

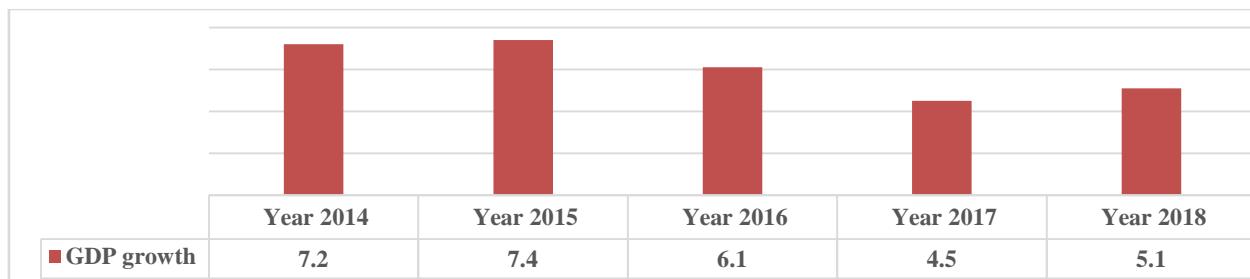
In terms of sectors, services and manufacturing have been one of the key factors of economic growth during the involved period, while the significance of agriculture in provision of economic growth has been decreasing during the recent years.

## I. INTRODUCTION

One of the natural ways to address social and economic problems in the community is to ensure sustainable economic growth. An

increase in the welfare of the population is positively correlated with the level of economic growth in the country. Therefore, there is no doubt that an analysis of the factors promoting economic growth plays an important role in ensuring sustainable economic growth for developing countries. It also helps developing countries take sensible political measures in achieving the levels of the developed economies. Since its independence, Uzbekistan has been recording different trends in its economy. For example, if we look at the indicators of Uzbekistan's economic growth in the past five years, the following graph shows that GDP growth rates are not less than 4 per cent for the last five years. In particular, in 2014 and 2015 the annual GDP growth was above 7%, however, this figure was relatively low in recent years.

Uzbekistan's GDP growth between 2014-2018



Source: State Statistics Committee of Uzbekistan

There is no doubt that in analysis of GDP growth it is important to analyze the factors influencing growth. In fact, there are several ways to analyze factors leading to economic growth in world practice.

One of them is the evaluation using the value added method. It decomposes the economic growth taking into account the value added of the sectors of economy. The advantage of this method is that it clearly shows which sectors are contributing most to the GDP growth. It also can serve as a helpful tool for policy makers to implement measures to ensure sustainable economic growth.

Another widespread method to decompose GDP growth is based on expenditure approach. It provides possibility to identify what factors such as consumption, government spending and investment are contributing most to economic growth. The advantage

of this approach is that it provides flexibility for the development of appropriate strategies and measures to ensure economic growth, taking into account the cost efficiency of various economic systems. In addition, today the Cobb-Douglas model, developed by advocates of Neo-classical schools, is widely used by many economists to analyze economic growth. With this model, the country's economic growth can be analyzed through production factors such as labor, capital or technological development, or in other words total factor productivity.

In general, this study aims to analyze core factors forming GDP growth. The next section will bring some studies done on the decomposition of economic growth.

## II. LITERATURE REVIEW

In fact, there have been numerous similar studies conducted on assessment of economic growth,



but they mostly differ from one another due to the factors involved into analyses and methodologies.

For example, a researcher at the University of Victoria, Steve McNeill (2013) his paper, titled "*the decomposition of China's GDP growth*", analyzed the value of the average product size for each of the workers, the importance or significance of increasing or decreasing the productivity and investment volumes. He believes that decomposition of economic growth can only be realized when there is a macroeconomic function that indicates the dependence of technology and production factors on maximal product production. According to his view, in 1965, the growth of production of per worker was 6.5%, and in the last ten years it grew by at least 9% on average.

Likewise, Li et al. (2015) found that the stable growth of capital and TFP were key factors in explaining China's manufacturing growth during the period from 1965 to 2010. Additionally, he analyzes the growth while excluding capital investment. Here this method is called the capital accumulation, explaining the size of the newly invested capital for the previous period by deducting the depreciation rate.

Moreover, Hekman and Yi (2012) point out that the Chinese workers' capital is based on the size of capital per worker, and the share of capital gains from economic growth is justified by a one-percent increase in capital growth. The main reason for this is the hypothesis that investments have played a major role in boosting the volume of production in China when compared to the year 1994. They come up to the formula, explaining how much the gross product responds to the change in investment. They concluded that to increase the gross domestic product by \$ 1 billion, there is need of \$ 4 billion investments. Traditionally, if investment coefficient is less than 0.4, the level of investment will be very low. It clearly shows that investment and capital growth was not a main factor in providing Chinese economic growth.

Also, Ch. Cobb and P. Douglas analyzed the performance of the US manufacturing industry for the years 1899-1922, and determined main production factors. The results of the research indicate that an increase in capital expenditure by 1% in the US manufacturing industry led to an increase in production by 0.25% while a rise of labor force in the industry provided 0.75% growth of gross production.

In summary, the use of the Cobb-Douglas production function is one of the most widely used methods in decomposition of economic growth.

### III. EMPIRICAL METHODOLOGY

In the assessment of economic growth, existing quantitative, qualitative and compound methods are used, with respect to factors affecting growth. Each of these methods has its own specificity.

The factors affecting economic growth can be conditionally divided into two groups. The first group of factors are called supply factors, determine the economic growth capacity:

- quantity and quality of natural resources;
- quantity and quality of workforce resources;
- the size of fixed capital (fixed assets);
- technological development.

Each of these factors can describe economic growth through the impact on GDP growth. It is known that GDP is a function of labor, capital and natural resources:

$$Y = f(L, K, N)$$

where:

- Y - gross domestic product;
- L - workforce;
- K - capital expenditure;
- N - use of natural resources.

Based on the formula, we can derive other specific indicators that determine economic growth:

- labor productivity ( $Y / L$ ) - ratio of gross domestic product to labor force;
- labor-intensity ( $L / Y$ ) - labor force to gross domestic product;
- capital efficiency ( $Y / K$ ) - the ratio of gross domestic product to capital expenditure;
- capital-intensity ( $K / Y$ ) - ratio of capital expenditures to gross domestic product;
- effectiveness of natural resources ( $Y / N$ ) - the ratio of production volumes to the costs of natural resources spent;
- capacity of the product ( $N / Y$ ) - the ratio of natural resources to the volume of production;

These indicators reflect the contribution of each factor to the growth of gross output, which is determined as follows:

$$Y = (\Delta Y / \Delta L)L + (\Delta Y / \Delta K)K + (\Delta Y / \Delta N)N$$

Economic growth is also influenced by distribution factors. In order to effectively use the production potential, it is necessary not only resources to be fully involved in the economic process, but also to be used effectively. It is also necessary to make real use of the growing resources of the resources and to distribute them in absolute terms. The production function, which was created based on the neoclassical view, American economist P. Douglas and mathematician Ch. Cobb. The Cobb-Douglas model attempts to determine the contribution of various factors of production growth in the following:

$$Y = AK^\alpha L^\beta$$

Here:

- Y - production volume;
- K - capital expenditure;
- L - labor;
- A – coefficient of production function (technological growth);
- and  $\beta$  are the elasticity coefficients of labor force and capital expenditures.

The elasticity coefficient represents the value of variation of another indicator as a result of the change in the size of one index. Accordingly, a 1% increase in capital expenditure indicates a percentage increase in output, and a 1% increase in labor costs shows an increase in output. The sum of  $\alpha$  and  $\beta$  shows an increase of production, when labor and capital expenditure inclined by 1 %. The Cobb-Douglas production function was further refined by the Dutch economist Jan Tinbergen, who introduced a new factor - technical progress. As a result, the output function formula looks like this:

$$Y = AK^\alpha L^{1-\alpha} e^{\gamma t}$$

Here:

E – Time factor

The introduction of the time factor into the production function has now made it possible to reflect not only quantities but also qualitative changes - the so-called "technical progress" - increased workforce skills, increased innovation processes, improved production organization, increased public awareness and more.

If the Cobb-Douglas formula for the base period is logarithmic, it looks like this:

$$\ln Y_t - \ln Y_{t-1} = \ln A_t - \ln A_{t-1} + \alpha(\ln K_t - \ln K_{t-1}) + (1-\alpha)(\ln L_t - \ln L_{t-1})$$

This can be explained as follows: Growth in the real value of GDP is the sum of the total factor efficiency, multiplication of fixed capital growth by its elasticity, and multiplication of labor growth by its elasticity.

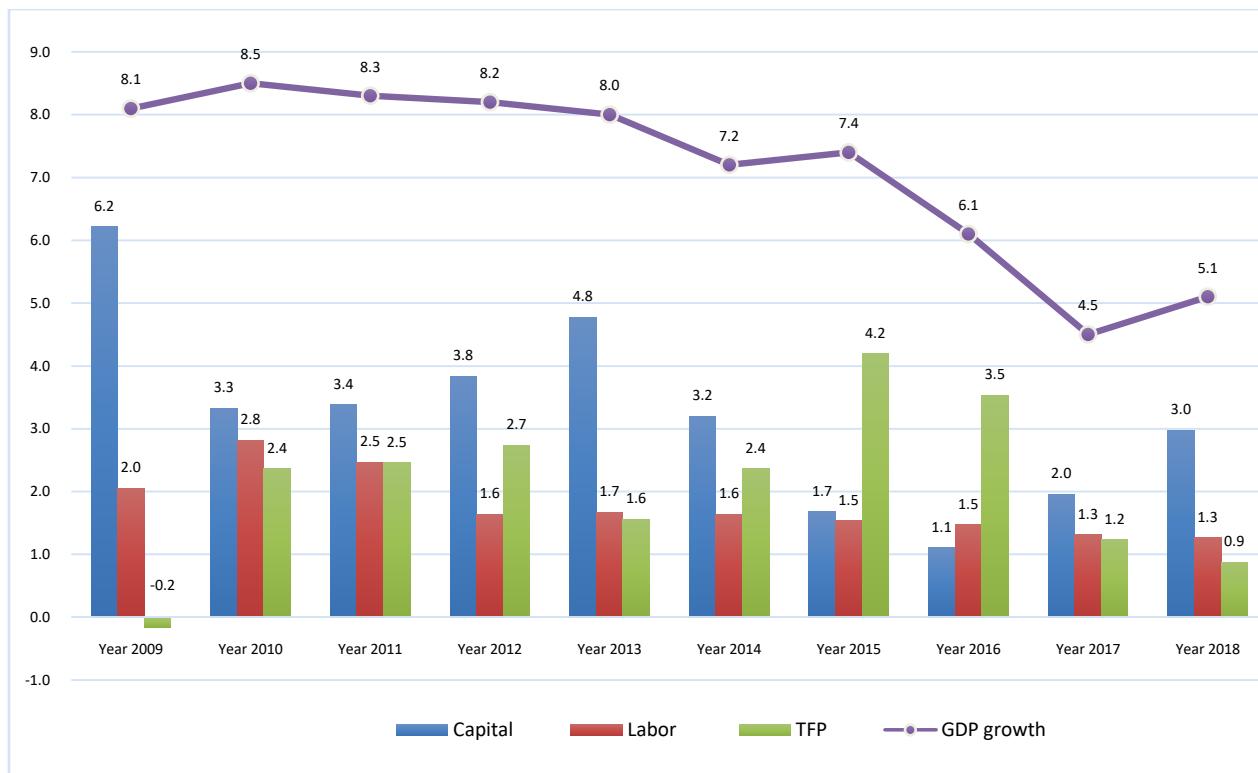
As part of this study, the estimation of economic growth decomposition is performed using the Cobb-Douglas production model described above.

#### IV. DISCUSSION OF RESULTS

The analysis of economic growth in Uzbekistan over the last 10 years, 2009-2018, using the above methodologies shows that the significance of the factors contributing to economic growth has been relatively constant over the period under review. In particular, although the growth of capital resources in the economy has been recognized as a key factor of economic growth from 2009-2014, it can be seen that economic growth over the last 2 years has been largely driven by increased scientific and technological development. That is, during 2015 and 2016, economic growth was 7.4 and 6.1 percent, respectively, of which 4.2 and 3.5

percent were due to improved overall productivity. Owing to the active investment policy implemented in the country over the last two years, we can stress that the sharp increase in investment capital is also reflected in economic growth. In particular, 2% of 2017 economic growth, or about 45% of total growth, and 3% in 2018, or 59% of total growth, were due to an increase in capital resources in the economy. During these years, the development of science and technology has slowed down to a slower rate of improvement in overall productivity, reaching 1.2 and 0.9 percent, respectively. It should be noted that a steady growth of the labor force in the economy has also played an important role in maintaining GDP growth over a 10-year period. The contribution of the labor force to economic growth was 1.6% on average during the study period.



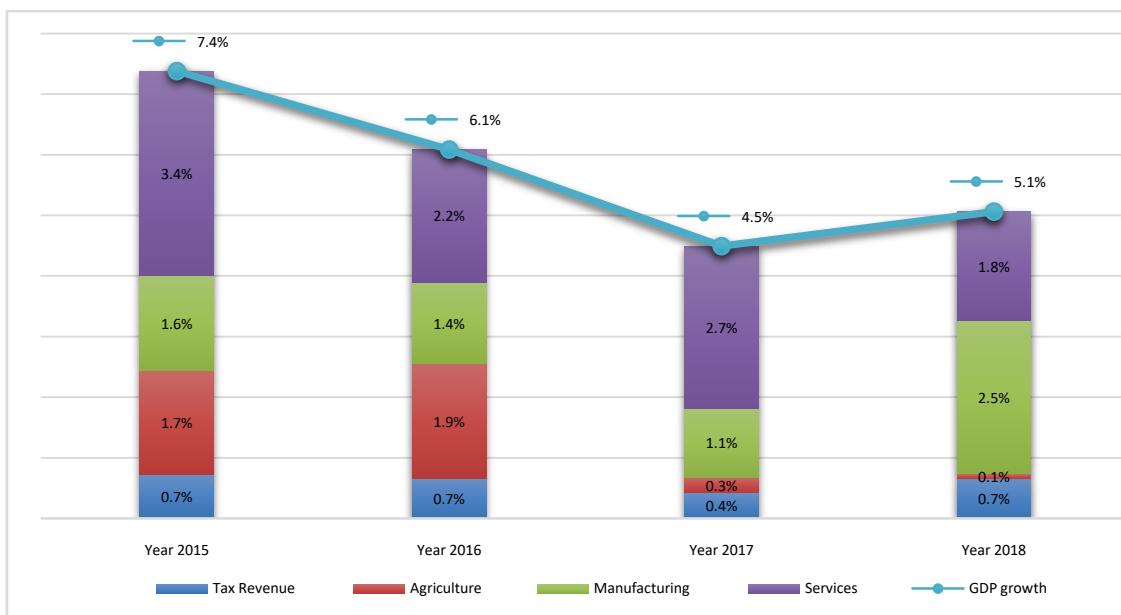


Source: the author's own calculations based on data from the World Bank and State Statistics Committee of Uzbekistan.

Another objective of the study was to assess the economic growth by using decomposition methods. Therefore, in the last four years, the contribution of the sectors to economic growth can be attributed to the fact that the share of services in GDP growth has been at the highest levels, excluding the year 2018. For example, in 2017 the economic growth was 4.5 percent, while the contribution of the services sector was 2.7 percent, or 60 percent of total growth. By 2018, the share of services in GDP growth was relatively low - at 1.8 per

cent, while the combined share of industry and construction accounted for nearly half of GDP growth.

Moreover, it should be pointed out that the share of agriculture in GDP growth has declined sharply over the last two years of the research period. For example, if the figure is 1.9 percent in 2016 or a third of GDP growth in 2016, it's only 0.1 percent by 2018.



Source: the author's own calculations based on data from the World Bank and State Statistics Committee of Uzbekistan.

## V. CONCLUDING REMARKS

As it is seen from the above, the economy of Uzbekistan has grown in recent years mainly due to the increase of capital resources. Therefore, in provision of long-term sustainable economic development in Uzbekistan, it is necessary to sustain large-scale investment projects aimed at increasing the capitalization of the economy. At the same time, taking into consideration the decline in the overall effectiveness of GDP in the last few years, it is necessary to envisage increasing public activity focused on increased expenditures on the development of science and technology.

Also, it is known that almost one-third of the population of Uzbekistan is engaged in agriculture but this sector is also significant in GDP, by 32 percent in 2018. Nevertheless, its contribution to economic growth has dropped dramatically in recent years. This, in turn, has led to the increase of the role of other sectors in the formation of economic growth. Moreover, when looking at the economies of the developed countries, the sectors that form the GDP and provide economic growth today are mostly the services and industries, as the majority of their population is involved in those sectors.

Overall, one can be said that in the near future, in the urgency economic development acceleration, the focus should be on improving the sectors such as services and industries listed above in the development of promising economic development.

# GLOBAL JOURNALS GUIDELINES HANDBOOK 2019

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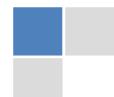


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## TIPS FOR WRITING A GOOD QUALITY SOCIAL SCIENCE RESEARCH PAPER

Techniques for writing a good quality human social science research paper:

**1. Choosing the topic:** In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

**2. Think like evaluators:** If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

**3. Ask your guides:** If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

**4. Use of computer is recommended:** As you are doing research in the field of human social science then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

**5. Use the internet for help:** An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow [here](#).



**6. Bookmarks are useful:** When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

**7. Revise what you wrote:** When you write anything, always read it, summarize it, and then finalize it.

**8. Make every effort:** Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

**9. Produce good diagrams of your own:** Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

**10. Use proper verb tense:** Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

**11. Pick a good study spot:** Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

**12. Know what you know:** Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

**13. Use good grammar:** Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

**14. Arrangement of information:** Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

**15. Never start at the last minute:** Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

**16. Multitasking in research is not good:** Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

**17. Never copy others' work:** Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

**18. Go to seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.

Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

**19. Think technically:** Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.



**20. Adding unnecessary information:** Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grown readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

**21. Report concluded results:** Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

**22. Upon conclusion:** Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

## INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

### **Key points to remember:**

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

### **Final points:**

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

*The introduction:* This will be compiled from reference material and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

### **The discussion section:**

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

### **General style:**

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

**To make a paper clear:** Adhere to recommended page limits.



#### **Mistakes to avoid:**

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

#### **Title page:**

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

**Abstract:** This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

#### *Reason for writing the article—theory, overall issue, purpose.*

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

#### **Approach:**

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

#### **Introduction:**

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.



*The following approach can create a valuable beginning:*

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

**Approach:**

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

**Procedures (methods and materials):**

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

**Materials:**

*Materials may be reported in part of a section or else they may be recognized along with your measures.*

**Methods:**

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

**Approach:**

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

**What to keep away from:**

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



## **Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

## **Content:**

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

## **What to stay away from:**

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

## **Approach:**

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

## **Figures and tables:**

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

## **Discussion:**

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

**Approach:**

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

## THE ADMINISTRATION RULES

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*Segment draft and final research paper:* You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

*Written material:* You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.



**CRITERION FOR GRADING A RESEARCH PAPER (COMPILED)  
BY GLOBAL JOURNALS**

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Topics	Grades		
	A-B	C-D	E-F
<i>Abstract</i>	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form  Above 200 words	No specific data with ambiguous information  Above 250 words
	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Introduction</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Methods and Procedures</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring
	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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save our planet



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