Online ISSN : 2249-4588
Print ISSN : 0975-5853

Global Journal

of Management and Business Research: B

Economics and Commerce

Stock Market Development

Secular Developing Countries

Highlights

Islamic Financial Systems

Trade and Income Distribution

Discovering Thoughts, Inventing Future

VOLUME 15 ISSUE 8 VERSION 1.0

Global Journal of Management and Business Research: B
Economics and Commerce

Global Journal of Management and Business Research: B
Economics and Commerce

Volume 15 Issue 8 (Ver. 1.0)

Open Association of Research Society

Incorporation No.: 0423089
License No.: 42125/022010/1186
Registration No.: 430374
Import-Export Code: 1109007027
Employer Identification Number (EIN):
USA Tax ID: 98-0673427

Global Journals Inc.

*(A Delaware USA Incorporation with "Good Standing"; **Reg. Number: 0423089**)*

Sponsors: *Open Association of Research Society*
Open Scientific Standards

Publisher's Headquarters office

Global Journals Headquarters
301st Edgewater Place Suite, 100 Edgewater Dr.-Pl,
Wakefield MASSACHUSETTS, Pin: 01880,
United States of America
USA Toll Free: +001-888-839-7392
USA Toll Free Fax: +001-888-839-7392

Offset Typesetting

Global Journals Incorporated
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,
Pin: CR9 2ER, United Kingdom

Packaging & Continental Dispatching

Global Journals
E-3130 Sudama Nagar, Near Gopur Square,
Indore, M.P., Pin:452009, India

Find a correspondence nodal officer near you

To find nodal officer of your country, please email us at *local@globaljournals.org*

eContacts

Press Inquiries: *press@globaljournals.org*
Investor Inquiries: *investors@globaljournals.org*
Technical Support: *technology@globaljournals.org*
Media & Releases: *media@globaljournals.org*

Pricing (Including by Air Parcel Charges):

For Authors:

22 USD (B/W) & 50 USD (Color)

Yearly Subscription (Personal & Institutional):

200 USD (B/W) & 250 USD (Color)

Integrated Editorial Board (Computer Science, Engineering, Medical, Management, Natural Science, Social Science)

Contents of the Issue

Global Journal of Management and Business Research: B
Economics and Commerce
Volume 15 Issue 8 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Efficacité De La Solidarité Internationale Dans La Coopération Nord-Sud: Une Analyse À Partir De L'impact De L'aide Publique Au Développement Sur La Croissance Économique Du Cameroun

By Dazoué Dongué Guy Paulin
Université de Maroua, Cameroon

Abstract- This article research the possibility of boosting economic growth from an outside source of funding as official development assistance, the example given is that of Cameroon. The purpose of this paper is to check the effects of ODA on economic growth in Cameroon. The data used come mainly from the World Bank, in "the book of world development indicators" on the CD -ROM (WDI 2014). Working for the period 1980-2013, the analysis was made with an error correction model. The endogenous variable is the real income growth rate per capita. Estimates made from the method of Johansen (1988), it emerges that the ODA has no effect on economic growth in the public Cameroun. Official development assistance, in its form of technology transfer, combined with good governance, could have a significant effect on economic growth.

Keywords: official development assistance, economic growth, gift, loan.

GJMBR - B Classification : JEL Code : A19

EFFICACITEDELASOLIDARITEINTERNATIONALEDANSLACOOPERATIONNORDSUDUNEANALYSEAPARTIRDELIMPACTDELAIDEPUBLIQUEAUDEVELOPPEMENTSURLACROISSANCEECO NOMIQUEDUCAMEROUN

Strictly as per the compliance and regulations of:

Efficacité De La Solidarité Internationale Dans La Coopération Nord-Sud: Une Analyse À Partir De L'impact De L'aide Publique Au Développement Sur La Croissance Économique Du Cameroun

Dazoué Dongué Guy Paulin

Abstract- This article research the possibility of boosting economic growth from an outside source of funding as official development assistance, the example given is that of Cameroon. The purpose of this paper is to check the effects of ODA on economic growth in Cameroon. The data used come mainly from the World Bank, in "the book of world development indicators" on the CD -ROM (WDI 2014). Working for the period 1980-2013, the analysis was made with an error correction model. The endogenous variable is the real income growth rate per capita. Estimates made from the method of Johansen (1988), it emerges that the ODA has no effect on economic growth in the public Cameroun. Official development assistance, in its form of technology transfer, combined with good governance, could have a significant effect on economic growth.

Keywords: official development assistance, economic growth, gift, loan.

Resume- Cet article recherche la possibilité de booster la croissance économique à partir d'un financement de source extérieur comme l'aide publique au développement, l'exemple pris est celui du Cameroun. L'objectif du présent papier est de vérifier les effets de l'aide publique au développement sur la croissance économique au Cameroun. Les données utilisées proviennent principalement de la Banque Mondiale, dans «le livre des indicateurs mondiaux de développement» contenu dans le CD – ROM (WDI-2014). Travaillant pour la période 1980-2013, l'analyse a été faite avec un modèle à correction d'erreur. La variable endogène est le taux de croissance du revenu réel par habitant. Des estimations faites à partir de la méthode de Johansen (1988), il ressort que l'aide publique au développement n'a aucun effet sur la croissance économique au Cameroun. L'aide publique au développement, sous sa forme de transfert de technologie, combinée à une bonne gouvernance, pourrait avoir un effet significatif sur la croissance économique.

Mots clés: aide publique au développement, croissance economique, don, prêt.

Author: Faculté des Sciences Économiques et de Gestion, Université de Maroua, Département d'Analyse et Politique Économiques, Cameroun. e-mail: dazoue_guy@yahoo.fr

I. Introduction

Au lendemain de la seconde Guerre Mondiale, le Plan Marshall, financé par les Etats-Unis a permis de mobiliser d'importantes ressources financières pour la reconstruction de l'Europe. On a assisté de ce fait à un relèvement rapide et prodigieux de l'Europe. C'est dans ce contexte qu'est née l'idée qu'un apport massif en capitaux aux anciennes colonies d'Afrique, d'Asie et d'Amérique Latine pouvait contribuer à un développement similaire à celui de l'Europe d'après-guerre (Amewoa 2008). En effet, l'idée de l'aide au développement est apparue en même temps que celle du développement. Elle a été conceptualisée par les organisations multilatérales mises en place pour l'appui financier et technique des pays sous-développés. C'est ainsi que la coopération au développement dans sa forme et ses structures actuelles tire ses origines de la fin de la seconde Guerre Mondiale; notamment avec la création des institutions de Brettons Wood.

Dans cette conjoncture défavorable à l'aide internationale, la Banque Mondiale a relancé le débat sur l'efficacité de l'aide publique au développement avec la publication de son rapport « *Assessing Aid* » (1998) fondé sur les travaux de Burnside et Dollar (1997). Ce rapport soutient que l'efficacité de l'aide en matière de croissance dépend de la qualité des politiques économiques des pays en développement. Cette efficacité de l'aide publique au développement perçue en termes de son impact sur la croissance économique doit se tourner dans les années 1990 en terme de son impact sur la réduction de la pauvreté.

Le Cameroun pour sa part, malgré la mise en place de son premier programme d'ajustement structurel en 1987 dans un contexte de crise économique a passé une décennie de récession ininterrompue (1985-1995). Avec la dévaluation du Fcfa contenue aussi dans le PAS, l'économie camerounaise a repris le chemin de la croissance (DSRP, 2003). Malgré l'amélioration des indicateurs macro-

Global Journal of Management and Business Research (B) Volume XV Issue VIII Version I Year 2015

économiques du pays, les indicateurs sociaux s'étaient détériorés. Ainsi, il a été question d'intégrer dans le PAS une dimension sociale .C'est ainsi que les institutions de Brettons Wood ont mis en place en 1996, un nouveau programme dénommé l'Initiative en faveur des Pays Pauvres Très Endettés (IPPTE) visant à alléger le fardeau de la dette des pays pauvres du monde qui entrave le développement de ces derniers.

A ce sujet, le Cameroun a conclu un accord au titre de la Facilité d'Ajustement Structurel Renforcé (FASR) avec le FMI et a reçu à travers cet accord, l'appui du FMI dans la mise en œuvre des programmes économiques et financiers triennaux couvrant la période allant du début juillet 1997 à la fin du mois de juin 2000 .Après plusieurs reports dus aux échecs répétés dans la mise en œuvre du Document de Stratégie pour la Réduction de la Pauvreté (DSRP), le Cameroun a atteint le point d'achèvement de l'initiative PPTE en avril 2006 et a ainsi pu obtenir une remise d'une partie de sa dette envers ses différents partenaires au développement de l'ordre de 1140 milliards de Fcfa (CAA, 2008)[1].

La plupart des citoyens camerounais croyaient que l'atteinte du point d'achèvement de l'initiative PPTE marquerait la fin de la pauvreté. c'est dans le souci de les désillusionner qu'en plus du discours télévisé du Président de la République[2], le gouvernement avait organisé les conférences à travers l'étendue du territoire pour éclairer les citoyens camerounais à ce sujet. En effet, après plusieurs années d'assistance financière et de nombreux programmes de développement, il y a lieu que la population s'impatiente de l'amélioration de leur condition de vie. On se demande si cette source de financement extérieur qu'estl'aide publique au développement peut contribuer à stimuler la croissance économique du Cameroun.

II. Revue De La Littérature

A propos de cette relation aide-croissance, trois grands courants de pensée se dégagent des études empiriques, à savoir que: l'aide n'influe pas sur la croissance et peut même la freiner; la relation entre l'aide et la croissance est généralement positive; la relation entre l'aide et la croissance est conditionnelle. Les contributions de ces courants de pensée s'articulent autour de deux grandes préoccupations. En effet, les auteurs se demandent, d'une part, si la relation entre l'aide et la croissance est positive ou négative et, d'autre part, si ladite relation n'est pas finalement conditionnelle.

a) Impact Negatif Ou Positif De L'aide Sur La Croissance

Griffen et Enos (1970) ont été parmi les premiers auteurs à remettre en question l'efficacité de l'aide, à partir d'une étude empirique faisant état d'une corrélation simple négative entre l'aide et la croissance dans 27 pays. De nombreux chercheurs ont fait écho à cette conclusion, soutenant que la relation était ténue ou inexistante (Mosley, 1987; Dowling et Hiemenz, 1982; Boone, 1994). L'étude de Boone (1994), en particulier est l'une des plus citées dans ce domaine. Son analyse s'est focalisée uniquement sur une relation linéaire faisant ainsi abstraction de l'éventuelle endogénéité de l'aide et a abouti à la même conclusion selon laquelle l'aide affecte négativement la croissance. Quant à Voivodas (1973) qui a travaillé sur un échantillon de 22 pays, sur la période de 1956 à 1968, la relation aide-croissance serait plutôt non significative.

Selon cette catégorie de chercheurs, l'aide ne favoriserait pas la croissance pour plusieurs raisons parmi lesquelles on dénombre entre autres, la corruption et les maladies. En effet, pour ces auteurs, l'aide serait détournée de son objectif. Toutefois, au milieu des années 1990, un changement de cap important est survenu lorsque les tenants de ce courant ont commencé à se demander si l'aide pouvait stimuler la croissance et si son rendement pouvait décroître à mesure que ladite aide était augmentée. En effet, jusqu'au milieu des années 1990, ceux qui s'intéressaient à l'efficacité de l'aide n'ont testé qu'un rapport linéaire aide-croissance (fondé sur les modèles néoclassiques de la croissance) qui pose le problème d'endogénéité lié à l'utilisation d'une seule équation dans laquelle, l'effet inverse d'une faible croissance sur une massive allocation de l'aide est ignoré.

Ces insuffisances ont été par la suite, relevées par une nouvelle catégorie de chercheurs qui vont soutenir la thèse contraire.

La plupart de ces derniers auteurs admettent le rendement décroissant de l'aide et concluent à une relation positive entre celle-ci et la croissance (Hajimichael et al, 1995; Durbarry et al, 1998; Dalgaard et Hansen, 2000; Hansen et Tarp, 2000 et 2001; Lensink et White, 2001; Dalgaard et ali, 2004). Selon la majorité de ces chercheurs, l'aide n'a pas toujours été efficace; mais, en général, l'augmentation des flux d'aide a été associée à une croissance plus rapide. La relation est généralement positiv[3], bien que le rendement décroisse au fur et à mesure que l'aide augmente. C'est-à-dire que l'impact marginal sur la croissance est maximisé lorsque l'aide est moins importante et diminue à mesure que l'aide augmente.

A ce propos, les premiers auteurs (Papenek, 1973; Levy, 1988), ont présumé que l'aide stimulerait la

[1] CAA est la caisse autonome d'Amortissement au Cameroun en charge de la gestion de la dette et certains flux financiers.

[2] Le président de la République du Cameroun dans son discours a bien signalé que l'atteinte du point d'achèvement à l'initiative PPTE n'est pas une panacée.

[3] Il est à souligner cependant que la sensibilité de la croissance à l'aide varie selon les pays ou les régions.

croissance en augmentant l'épargne et le stock de capital. De plus, l'aide pourrait, selon eux, contribuer à l'accroissement de la productivité des travailleurs par le biais des investissements en santé ou en éducation par exemple. Elle pourrait aussi servir de courroie de transmission de la technologie ou des connaissances entre les pays riches et les pays pauvres en finançant par exemple les importations de biens d'équipement.

De tels résultats n'ont pas manqué de susciter des débats très animés entre ces derniers et les chercheurs qui avaient conclu à l'absence d'une telle relation. Toutes ces études regroupent un panel de pays en développement. Cependant, pour faire ressortir les spécificités de l'Afrique subsaharienne et tenir compte de la sélectivité de l'aide (Alesina et Dollar, 2000; Burnside et Dollar, 2000) qui n'est pas sans effet sur son efficacité dans les différents pays et régions bénéficiaires, une variable muette est introduite dont le coefficient est significativement négatif dans presque toutes les études empiriques. Mais, en termes d'explication de la différence dans les taux de croissance, cette variable muette n'offre pas une information supplémentaire, si bien que son interprétation est souvent négligée.

A côté de ces études à caractère globalisant, certaines études se sont penchées spécifiquement sur le cas des pays africains subsahariens. L'une d'elles est celle réalisée par Levy (1988) qui a abouti à la conclusion que l'aide a un impact positif et significatif sur la croissance dans ces pays. Cependant, il faut remarquer que son estimation sur données transversales ne couvre que la période 1968-1992. Plus récemment, Hadjimichael et al (1995) sont parvenus aux mêmes résultats sur un échantillon de 41 pays sur une période de 1986 à 1992.

Pour un compromis entre les tenants des deux précédentes thèses, de nouvelles pistes sont explorées, notamment la recherche d'une éventuelle conditionnalité de la relation aide-croissance.

b) La Nature Conditionnelle De La Relation Aide-Croissance

Cette nouvelle thèse part du principe que l'aide accélère la croissance, mais seulement dans certaines circonstances. Les chercheurs qui partagent ce point de vue ont tenté de faire ressortir les caractéristiques fondamentales susceptibles d'expliquer l'accélération de la croissance. Selon les auteurs, l'efficacité de l'aide dépendrait des pratiques et des procédures des bailleurs de fonds, mais aussi et surtout des caractéristiques du pays bénéficiaire. La propension à faire bon usage des ressources dépendrait d'un certain nombre de facteurs parmi lesquels la qualité administrative des gouvernements nationaux.

Isham et al (1995) ont constaté que les projets de la Banque mondiale affichaient un meilleur rendement dans les pays où les libertés civiques étaient mieux respectées. Dans une étude qui a eu beaucoup de retentissement, Burnside et Dollar (2000) ont conclu que l'aide stimulait la croissance, uniquement dans les pays qui adoptaient des politiques macroéconomiques saines. Selon d'autres chercheurs, un certain nombre de caractéristiques sont susceptibles d'influer sur la relation aide - croissance: les chocs de prix (Isham et al, 1995), les perturbations climatiques et les termes de l'échange (Guillaumont et Chauvet, 2001; Chauvet et Guillaumont, 2002), la qualité des politiques et des institutions (Collier et Dollar, 2002), la qualité des institutions (Burnside et Dollar, 2004), la politique et la guerre (Collier et Hoeffler, 2002), le totalitarisme (Islam, 2003) et le positionnement géographique.

Quoi qu'il en soit, la thèse, soutenant que l'aide est efficace, uniquement dans les pays ayant des politiques et des institutions saines fait désormais partie des idées reçues chez les bailleurs de fonds. Il en est ainsi en partie à cause des recommandations de politique issues des études précitées et, en partie également, à cause de la conviction des partenaires au développement fondée sur leurs expériences (Radelet et al, 2004). L'attrait de cette approche tient au fait qu'elle peut expliquer, d'une part, pourquoi l'aide semble avoir favorisé la croissance dans des pays tels que la Corée, le Botswana, l'Indonésie et, récemment, le Mozambique et l'Ouganda et, d'autre part, pourquoi l'aide n'a pas réussi à stimuler la croissance dans des pays comme Haïti, le Liberia, le Congo (RDC) et les Philippines. Ces constats ont eu un impact énorme sur les décisions des bailleurs de fonds (Banque mondiale, 2000), de telle sorte que le concept a été directement appliqué par la Banque mondiale lors de l'élaboration du mécanisme de distribution des fonds de l'Agence Internationale pour le Développement (AID) en fonction des résultats, et a jeté les bases du Millennium Challenge Account (Compte du Défi du Millénaire) créé récemment par les États-Unis (Radelet, 2003).

Pour appréhender la relation conditionnelle de l'efficacité de l'aide, il est souvent inclus un terme d'interaction reliant l'aide et un indice de politique macroéconomique calculé par Burnside et Dollar (2000). Cet indice se définit comme suit[4]:

[4] Burnside et Dollar ont créé cet indice qui couvre les aspects fiscal, monétaire, et de politique commerciale. La politique fiscale est mesurée par le surplus du budget. Le succès ou l'échec de la politique monétaire est mesuré par le niveau d'inflation, pendant que la politique commerciale est approximée par le binaire (0/1) de l'indicateur d'ouverture construit par Warner et Sachs (1995). La construction de l'indice est telle que la bonne politique, en termes de surplus du budget, de faible inflation et d'économie ouverte, aboutit à une valeur élevée de l'indice; d'où l'effet sur la croissance est supposé être positif.

*Politique = 1.28 + 6.85*Surplus du Budget – 1.4*Inflation + 2.16*Ouverture*

Cet indice ne prend en compte que les aspects de la stabilité macroéconomique, c'est-à-dire la capacité des gouvernements récipiendaires à conduire, de manière saine, leur politique économique.

III. Methodologie

Les données utilisées dans cette étude sont de source secondaire et proviennent de la publication annuelle de la Banque Mondiale dans le « World Development Indicators Book » et le « Africa Development Indicators Book » contenu dans un CD-ROM provenant de la Banque Mondiale (WBI-2014). Les données couvrent une période allant de 1980 à 2013. Ces données sont complétées par celles des documents de la CAA et de INS du Cameroun .Nous avons aussi procédé à des calculs pour obtenir les données pour certaines variables.

a) *Presentation Du Modele*

Comme variable dépendante, nous utilisons le taux de croissance du PIB réel par habitant pour mesurer *la croissance économique.*

Les variables indépendantes utilisées dans ce modèle sont les suivantes:

- *aide publique au développement:* c'est notre variable indépendante principale. Il devrait affecter positivement le taux de croissance économique et le niveau moyen du revenu par habitant. Elle est représentée par le rapport du volume total de l'aide reçue en pourcentage du PIB.
- *Produit Intérieur Brut:* il mesure la production nationale. La production nationale influence le revenu du pays et par conséquent le revenu moyen par habitant. En effet dans le cas d'une bonne répartition des revenus au sein d'un pays, l'accroissement de la production nationale s'accompagne par une amélioration du revenu moyen.
- *Dette extérieure:* on estime qu'il peut influencer la croissance économique du pays .si la dette est utiliser dans les investissements productifs, elle influencera positivement sur la croissance économique et par conséquent sur le revenu moyen. Cependant sa hausse peut traduire une future hausse des impôts et donc une diminution du revenu moyen par habitant. Il sera retenu en pourcentage du PIB.
- *La crise économique:* c'est un des faits économiques qui aurait marqué significativement l'économie camerounaise. Par conséquent, il est important d'évaluer son influence sur la croissance au Cameroun. C'est une variable dummy prenant la valeur 0 pour les années de ralentissement de la croissance et 1 pour les années de croissance.
- *La dévaluation:* elle traduit la modification du taux de change nominal du Franc CFA. On voudrait savoir si elle a influencé ou influence significativement la croissance économique dans notre pays. Nous l'avons aussi exprimée comme une variable dummy prenant la valeur 0 de 1980 à 1993 et 1 à partir de 1994, année de la dévaluation.
- *Investissement privé:* influence sur la croissance économique du pays car il est supposé booster la production nationale.
- *Investissement publique:* ce sont les dépenses gouvernementales de l'Etat. Elle devrait avoir une influence positive sur la production nationale et par conséquent sur le revenu moyen par habitant.
- *l'inflation:* il renseigne sur la stabilité macro-économique. Il devrait avoir une influence négative sur la croissance économique et le niveau de revenu. C'est pourquoi un des objectifs macroéconomiques de l'Etat est la lutte contre la hausse du niveau d'inflation. Il est utilisé dans nos équations pour la prise en compte de la politique économique du pays et par simplification de l'indice proposé par Burnside et Dollar (2000).
- *le capital humain:* cette variable est approximée dans la littérature par le taux de scolarisation au secondaire ou au primaire. Le capital humain favorise les gains de productivité. Nous ne retiendrons que celui du secondaire.
- *Les termes de l'échange:* c'est une variable qui a été relevée comme influençant les taux d'épargne et d'investissement dans beaucoup de pays africains. Ils sont retenus ici en pourcentage du PIB.

Tableau 1 : Tableau d'abréviations des variables

Variables	Abréviations	Mesures
Aide publique au développement	APD	APD/PIB
Endettement Extérieur	EXTDET	Dette /PIB
Taux de Croissance du Produit Intérieur Brut par habitant	Y	$(PIBO_t - PIBO_{t-1})/ PIBO_{t-1}$
Inflation	INF	Taux d'inflation annuel
Capital humain	KHU	Taux brut de scolarisation du Secondaire

Investissement public	IPU	Investissements public/PIB
Les Termes de l'échange	TOT	Pris en pourcentage du PIB
Dévaluation	DEV	Dévaluation du Franc CFA à partir 1994
Crise	CRISE	Crise économique à partir de 1986
Investissement privé	IPR	Investissement privé/PIB
Revenu moyen par habitant	REVCC	Revenu brut/population
Produit intérieur brut par habitant	PIBO	PIB Brut/Population
Epargne nationale	EPA	Epargne/population

b) Specification Du Modele

Le modèle mesurant l'impact de l'aide sur la croissance économique a la forme fonctionnelle donnée par:

$$Y = f\,(AID, INF, REVC, IPU, IPR, TOT, KHU, EXDET, CRIS, DEVA) \qquad (1)$$

En supposant une relation linéaire entre la variable dépendante et les variables indépendantes dans les deux modèles, nous pouvons écrire ces modèles sous la forme suivante:

$$Y=a_{0+}a_1AID+a_2INF+a_3REVC+a_4IPU+a_5IPR+a_6TOT+a_7KHU+a_8EXDE+a_9CRIS+a_{10}DEVA+\varepsilon_t \qquad (2)$$

Tableau 2 : Récapitulatif des signes attendus

variables dépendantes / variables explicatives	Y
AID	+
EXTDET	+
IPR	+
PIBO	+
INF	-
KHU	+
TOT	+
IPU	+
DEV	+
CRIS	-
EPA	+

IV. Presentation Des Resultats

a) Test de stationnarité

La stationnarité renvoie au caractère infiniment persistant des séries à la suite d'aléa. Cette propriété est souhaitée dans le cadre des estimations sur les données temporelles car elle évite les risques de régressions fallacieuses (spurious regressions). Il existe une grande variété de tests de stationnarité des variables. Ces tests comportent tous des biais, ce qui conduit à penser que la détermination de l'ordre d'intégration des variables ne saurait être probante à partir d'un seul test de racines unitaires. C'est pourquoi et compte tenu de l'importance pour la spécification du modèle du caractère stationnaire et de la présence éventuelle d'une tendance déterministe dans les séries, nous pouvons recourir à différents tests de stationnarité: le test usuel de racine unitaire de Dickey-Fuller (ADF), le test de Phillips-Perron (PP), le test de Kwiatkowski, Phillips, Schmidt et Shin (KPSS). Ce dernier test repose sur la décomposition de la série étudiée en une partie déterministe, une marche aléatoire et un bruit blanc. Il s'agit donc d'un test de nullité de la variance du résidu de la marche aléatoire. Ainsi, pour que la série soit considérée comme stationnaire dans le test de KPSS, il faut que la statistique de KPSS soit inférieure à la valeur critique. Dans notre étude, nous utilisons les deux premiers tests: Dickey-Fuller (ADF) et Phillips-Perron (PP).

Tableau 3 : test de racine unitaire des séries

TEST DE STATIONNARITE (Au seuil de 5%)								
Variables	Stationnarité	Dickey-Fuller Augmenté (ADF)			Phillips-Perron			Stationnarité
	Oui / Non	Ordre d'Intégration	Valeur des Statistiques	Valeur Critique	Valeur des Statistiques	Valeur Critique	Oui / Non	Ordre D'Intégration
Y	Oui	I(1)	-9,5633	-2,9862	-8,8632	-2,9862	Oui	I(1)
AID	Oui	I(1)	-7,3683	-2,9862	-9,0893	-2,9862	Oui	I(1)
CRIS	Oui	I(1)	-5,0000	-2,9862	-5,0000	-2,9862	Oui	I(1)
EXDET	Oui	I(1)	-4,1365	-2,9862	-4,1365	-2,9862	Oui	I(1)
DEVA	Oui	I(1)	-5,0000	-2,9862	-5,0000	-2,9862	Oui	I(1)

EPA	Oui	I(1)	-5,6928	-2,9862	-5,6928	-2,9862	Oui	I(1)
INFL	Oui	I(0)	-3,9158	-2,9810	-3,9158	-2,9810	Oui	I(0)
IPR	Oui	I(1)	-6,3905	-2,9862	-6,3002	-2,9862	Oui	I(1)
IPU	Oui	I(2)	-4,6416	-2,9919	-4,9892	-2,9919	Oui	I(2)
KHU	Oui	I(2)	-6,2510	-2,9981	-14,2588	-2,9919	Oui	I(2)
PIBO	Oui	I(1)	-9,6275	-2,9862	-8,9670	-2,9862	Oui	I(1)
REVCC	Oui	I(1)	-3,6616	-2,9862	-3,6932	-2,9862	Oui	I(1)
TOT	Oui	I(0)	-3,8549	-2,9810	-3,8414	-2,9810	Oui	I(0)

Comme déjà souligné plus haut les tests comportent tous des biais, ce qui conduit à penser que la détermination de l'ordre d'intégration des variables ne saurait être probante à partir d'un seul test de racines unitaires c'est pourquoi nous avons utilisé ces deux à la fois. Les résultats du test de racine unitaire de Dickey-Fuller Augmenté (ADF) et celui de Phillips-Perron montrent que le terme de l'échange (TOT) et le taux d'inflation (INF) sont stationnaires en niveau ; Les variables, Y, AID, EPA, EXTDET, CRIS, DEVA, IPR, PIBO, REVCC sont stationnaires en différence première alors que KHU et IPU sont stationnaires en différence seconde au seuil de 5%. Puisque toutes les variables ne sont pas intégrées de même ordre, elles ne peuvent donc pas être cointégrées au sens de Granger selon la théorie économétrique. On est donc tenté de choisir un modèle vectoriel autorégressif (VAR). Mais ce modèle présente le désavantage d'avoir une multitude de variable. Pour pallier à ces différents problèmes nous avons éliminé les variables intégrées à niveau et ceux intégrées en seconde différence. Car nos variables principales que sont l'aide, le revenu moyen par tête et le taux de croissance sont toutes intégrées en différence première. Nous travaillerons avec les variables intégrées en différence première.

b) Analyse de Cointégration

La cointégration est une propriété qui permet donc de réduire le nombre de trend stochastique dans un vecteur aléatoire. Par rapport au cas univarié, la représentation autorégressive de la série devient nettement plus complexe, même si une écriture matricielle laisse entrevoir une certaine similitude. L'inférence et les tests dans les modèles autorégressifs avec cointégration deviennent eux aussi plus complexes. La méthode de cointégration retenue ici est celle dite de Johansen (1988). Le test de Johansen est basé sur la généralisation multivariée du test de co-intégration. Il consiste à calculer le rang de la matrice p sur:

$$\Delta X_t = A_0 + \pi X_{t-1} + \varepsilon_t$$

Avec

X_t = Vecteur des variables

A_0 = Matrice (n x 1) des termes d'interception;

$$\pi = -\left(I - \sum_{i=1}^{p} A_i \right)$$

$A_{i/j}$ = Matrice (n x n) de paramètres;

Le rang de la matrice p indique le nombre de vecteurs co-intégrants indépendants.

En effet, ce test permet de déterminer le nombre de relation de co-intégration. Pour cela, Johansen (1988) propose un test fondé sur les valeurs propres d'une matrice issue d'un calcul à deux étapes:

- *Etape 1:* calcul de deux résidus u_t et v_t

Pour cela, on effectue deux régressions:

- Première régression:

$$\Delta Y_t = \hat{A}_0 + \hat{A}_1 \Delta Y_{t-1} + \hat{A}_2 \Delta Y_{t-2} + \ldots + \hat{A}_p \Delta Y_{t-p} + u_t$$

- Deuxième régression:

$$Y_{t-1} = \hat{A}_0 + \hat{A}_1 \Delta Y_{t-1} + \hat{A}_2 \Delta Y_{t-2} + \ldots + \hat{A}_p \Delta Y_{t-p} + v_t$$

Avec $Y_t = \begin{pmatrix} Y_{1t} \\ Y_{2t} \\ \cdots \\ \cdots \\ Y_{kt} \end{pmatrix}$ on a les mêmes variables explicatives seule la spécification du bloc de la variable à expliquer est modifiée.

u_t Et v_t sont donc les matrices de résidus de dimension (k; n) avec k nombre de variables et n nombre d'observations.

- *Etape 2:* calcul de la matrice permettant de calculer les valeurs propres.

On calcule quatre matrices de variances-covariances de dimension (k; k) à partir des résidus u_t et v_t

$$\hat{\Sigma}_{uu} = \frac{1}{n} \sum_{t=1}^{n} u_t u_t'$$

$$\hat{\Sigma}_{vv} = \frac{1}{n} \sum_{t=1}^{n} v_t v_t'$$

$$\hat{\Sigma}_{uv} = \frac{1}{n} \sum_{t=1}^{n} u_t v_t'$$

$$\hat{\Sigma}_{vu} = \frac{1}{n} \sum_{t=1}^{n} v_t u_t'$$

Puis on extrait les k valeurs propres de la matrice M de dimension (k; k) calculée de la manière suivante

$$M = \hat{\Sigma}_{uu}^{-1} \hat{\Sigma}_{uv}^{-1} \hat{\Sigma}_{vv}^{-1} \hat{\Sigma}_{vu}^{-1}$$

A partir de ces valeurs propres, on calcule une statistique:

$$\lambda_{trace} = -n \sum_{i=r+1}^{k} Ln(1-\lambda_i)$$

Avec n = nombre d'observations, $\lambda_i = i^{ème}$ valeur propre de la matrice M, k = nombre de variables, r = rang de la matrice.

Cette statistique suit une loi de probabilité tabulée à l'aide de la simulation de Johansen et Juselius (1990). Ce test de Johansen fonctionne par exclusion d'hypothèses alternatives:

- rang de la matrice Π égal 0 ($r=0$). Soit H0: $r=0$ contre H1: $r \rangle 0$: si H0 est refusé, on passe au test suivant (Si $\lambda_{trace} \succ$ à la valeur critique lue dans la table. On rejette H0)
- rang de la matrice Π égal 1 ($r=1$). Soit H0: $r=1$ contre H1: $r \rangle 1$: si H0 est refusé, on passe au test suivant
- rang de la matrice Π égal 2 ($r=2$). Soit H0: $r=2$ contre H1: $r \rangle 2$: si H0 est refusé, on passe au test suivant, etc.

Si après avoir refusé les différentes hypothèses H0 à la fin de la procédure on teste H0 : $r=k-1$ contre H1 : $r=k$ et que l'on soit amené à refuser H0, alors, le rang de la matrice est $r=k$ et il n'existe pas de relation de co-intégration, les variables sont toutes intégrées d'ordre 0 $I(0)$.

En testant ces différents modèles, le critère d'information d'Akaike se trouve optimisé pour le modèle 1, r = 6 et k = 7. Ce modèle est estimé afin de déterminer la relation de long terme. Les résultats se présentent comme suit (cf. tableau).

Tableau 4 : Test de cointégration: Rank Test (Trace) pour les variables du Modèle

Included observations: 32 after adjustments				
Trend assumption: Linear deterministic trend				
Series: Y AID CRIS DEVA EPA EXDET IPR OPEN				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.977407	350.8098	159.5297	0.0000
At most 1 *	0.959042	256.0574	125.6154	0.0000
At most 2 *	0.873421	176.1775	95.75366	0.0000

Global Journal of Management and Business Research (B) Volume XV Issue VIII Version I Year 2015

At most 3 *	0.814845	124.5052	69.81889	0.0000
At most 4 *	0.755702	82.34113	47.85613	0.0000
At most 5 *	0.660953	47.10695	29.79707	0.0002
At most 6 *	0.522680	20.06654	15.49471	0.0095
*At most 7	0.061145	1.577351	3.841466	0.2091
Trace test indicates 7 cointegrating eqn(s) at the 0.05 level				

Ce résultat nous montre que nous avons au moins 6 relations de cointégration entre les variables. la « p-value » est inférieure à la valeur de $\alpha=5\%$ pour r=0; r=1, r=2, r=3, r=4, r=5, r=6.

Le même résultat est obtenu en comparant la valeur de la statistique trace ou celle du «max Eigenvalue »par rapport à la valeur critique. Il y a cointégration quand la valeur critique est plus petite par rapport à la valeur de la statistique considérée.

c) Modèle à correction d'erreur

Le modèle à correction d'erreurs est une forme particulière des modèles autorégressifs à retard échelonnés (ARDL). Il peut être interprété à cet égard comme un modèle d'ajustement. A l'instar du modèle d'ajustement, le coefficient du terme d'erreur n'est pertinent que lorsqu'il est significatif et compris entre -1 et 0.

- *Estimation d'équation de long terme de la croissance économique*

Tableau 5 : Estimation d'équation de long terme de la croissance économique

Normalized cointegrating coefficients (standard error in parentheses)							
	AID	CRIS	DEVA	EPA	EXDET	IPR	OPEN
Y	0.051428	-16.57966	-16.57966	- 0.897229	-0.006916	0.454836	0.137670
	(0.05348)	(0.24989)	(0.19484)	(0.02987)	(0.00356)	(0.02875)	(0.01100)

Ces résultats s'interprètent de la façon suivante: l'analyse de la trace et de la valeur propre maximale laisse apparaître une relation de cointégration dans l'intervalle de confiance de 5% du test de vraisemblance.

La relation normalisée est

Y= 0,0514AID – 16, 5797 CRIS + 6,8871DEVA – 0, 8972 EPA- 0.0069EXTDET+0, 4548 IPR + 0.1376 OPEN

Les signes de nos principales variables correspondent aux signes attendus. En d'autres termes, une hausse de 1% d'aide publique au développement engendrerait à long terme au Cameroun une augmentation de 0,051% du PIB réel par habitant, la crise a eu une influence négative sur la croissance économique du Cameroun alors que la dévaluation a eu une influence positive sur la croissance économique du pays. Un accroissement de 1% des investissements privés entraînerait dans le long terme une augmentation du taux de croissance du PIB au Cameroun. Le taux d'ouverture du Cameroun à long terme à un impact positif sur la croissance économique. En effet l'augmentation du taux d'ouverture de 1% entraînerait un accroissent du PIB réel par habitant de 0.1376% sur le long terme. le signe négatif du coefficient de l'épargne à long terme demande une attention particulaire, une des justifications peut être à la faiblesse de la portion de l'épargne investi d'où la surliquidité des banques décriée dans ce pays.

- *Estimation de modèle à correction d'erreurs de la croissance économique*

Tableau 6 : Estimation du modèle à correction d'erreurs de la croissance économique

Cointegrating Eq:	CointEq1
Error Correction:	D(Y)
TCE	-0.802585
	(0.71869)
	[-1.11673]
D(Y(-1))	-0.022022
	(0.29416)
	[-0.07486]
D(AID(-1))	0.023061
	(0.61600)
	[0.03744]

Global Journal of Management and Business Research (B) Volume XV Issue VIII Version I Year 2015

D(CRIS(-1))	-3.958205
	(6.08836)
	[-0.65013]
D(DEVA(-1))	0.436018
	(6.53621)
	[0.06671]
D(EPA(-1))	0.100215
	(0.36354)
	[0.27566]
D(EXDET(-1))	-0.021735
	(0.09080)
	[-0.23937]
D(IPR(-1))	-0.558782
	(0.28586)
C	-18.25040
R-squared	0.632296
Adj. R-squared	0.448444
F-statistic	3.439161

Chaque variable indépendante renferme trois nombres. Le premier correspond au coefficient de la variable qui y est associée, le second qui est entre parenthèses, l'écart type, le troisième exprime la valeur t de Student. Le coefficient du terme à correction d'erreur (TCE) est négatif (-0.8025). Ce terme de rappel montre que plus de 80% des écarts entre la valeur actuelle et celle d'équilibre (long terme) des taux de croissance sont corrigés chaque année.

Soulignons que les paramètres sont significatifs si la valeur de T-student lue est $t_{0.05\ (19)} = 1.32$ en valeur absolue est inférieur à la valeur de t calculé pour chaque paramètre. Il ressort que l'aide publique à une influence positive mais significative sur la croissance économique à court terme.

La dévaluation a eu à court comme à long terme un impact positif et significatif sur la croissance économique. Alors que même à court terme la crise à eu un impact négatif et significatif à 5% sur la croissance économique du Cameroun. La dette publique à une influence positive mais non significative sur la croissance économique à court terme.

Le coefficient de détermination corrigé est de 0,448%.ceci est dû au fait que nous avons négligé certaines variables à cause de leur ordre d'intégration. Seul 44,8% de la variation de la croissance économique est justifiée par la variation des variables indépendantes.

La statistique de Fisher lue est $F_{0.05}(6\ ;19) = 2.43$.celle valeur étant inférieure à la statistique calculée alors le modèle est globalement significatif à 5%.

En effet, le Cameroun a une réputation en matière de la corruption; il se peut que l'aide publique soit détournée de sa mission principale. Par ailleurs au lieu de financer les investissements productifs; elle est souvent utilisée dans les secteurs peu productifs; négligé par publique au développement, la non significativité de l'aide à court et à long terme sur le secteur privé à cause de sa non rentabilité. Signalons qu'il existe un seul de rentabilité de l'aide publique au développement en deçà duquel son effet n'est pas perçu sur la croissance économique. Ainsi, la non-significativité de l'impact de l'aide sur la croissance économique serait due en grande partie à la faiblesse de son volume.

V. Conclusion

La question de l'efficacité de l'aide publique au développement se pose avec encore plus d'acuité dans la conjoncture économique actuelle. Les pays développés ne respectent plus leurs engagements financiers en termes d'aide publique au développement. Les Objectifs du Millénaire pour Le Développement n'ont pas été atteints dans la majorité des pays en développement et en particulier au Cameroun.

Le Cameroun depuis pratiquement cinquante années reçoit l'aide au développement; mais n'a pas pu s'extraire de la dépendance envers l'extérieur. D'où la question de savoir si l'aide publique au peut favoriser la croissance au Cameroun? Pour répondre à cette préoccupation, nous avons fixé comme objectif de mesurer l'impact de l'aide publique au développement sur la croissance. Nous avons donc formulé une équation où la variable dépendante est le taux de croissance. Ensuite, nous avons fait le test de la racine unitaire qui nous a permis de sélectionner les variables stationnaires en différence première. Ceci parce que nos variables principales étaient toutes stationnaires en différence première. Puis nous avons fait le test de cointégration par la méthode de Johannsen. Ce test n'étant applicable que lorsque toutes les variables ont le même ordre d'intégration. Ce qui justifie la sélection des variables. Nous avons alors déterminé les relations de cointégration de long terme et estimer les modèles à correction d'erreur pour la dynamique de court terme.

Nous avons conclu au seuil de 5% que l'aide n'a aucun impact significatif sur la croissance économique au Cameroun à court et à long terme. Notre travail renforce l'idée selon laquelle l'aide est inefficace comme soulignaient plusieurs auteurs tels que Voivodas (1973) qui a montré sur un échantillon de 22 pays, une relation non significative entre l'aide et la croissance économique, Griffen et Enos dont les conclusions sont plus inquiétantes car montrant plutôt une relation négative entre ces variables. L'aide publique au développement peut mieux servir la croissance si elle est sous sa forme de transfert de technologie.

References Bibliographiques

1. *Amewoa A. K. (2008) L'aide au développement aide-t-elle le développement ?: Le cas de l'Afrique Sub-saharienne* Thèse de doctorat: Sciences Économiques, Université de Limoges.
2. *Banque Mondiale (1998), Assessing Aid: What Works, What Doesn't, and Why*, Oxford University Press, New York.
3. *Boone P., (1994),* «The impact of Foreign Aid and Savings on Growth», Center for Economic Performance Working Paper, n°677, *London School of Economics*.
4. *Boone P., (1996),* « Politics and the Effectiveness of Foreign Aid», *European Economic Review* 40(2) 289-329.
5. *Bourbonnais R. (2003), Econométrie, Dunod, 4eéd.*
6. *BurnsideC.et Dollar D.(1997), Aid, policies and growth,* working paper, n°1777,World Bank; Development Reearch Group, Washington D-C.
7. *Burnside C. and D. Dollar, (2000), «Aid, Policies and Growth »*, American Economic Review, 90(4), 847 68
8. *Burnside C. and D. Dollar, (2004), «Aid, Policies, and Growth: Revisiting the Evidence*, Policy Research Paper N°3251, World Bank.
9. *CAA (2008)*; Glossaire de la Dette.
10. *Chauvet L. and P. Guillaumont (2002),* «Aid and Growth Revisited: Policy, Economic Vulnerability and Political Instability», Paper present at the Annual Bank Conference or Development Economics on Towards Pro-poor Policies, Oslo, June.
11. *Dalgaard C. J and Hansen (2000),* «On Aid, Growth and Good Policies», *Journal of Development Studies* 37, 17-41.
12. *Dalgaard C-J, H. Hansen and F. Tarp (2004),* «On the Empirics of Foreign Aid and Growth», *Economic Journal*, Vol.114: F191-F216.
13. *Dowling and Hiemenz (1982),* «Aid, Savings, and Growth in the Asian Region». *Report* N°3, Economic Office, Asian Development Bank.
14. *Dubarry R., N. Gemmel et D. Greenaway (1998), «New Evidence on the Impact of Foreign Aid on Economic Growth»*, CREDIT Research Working Paper 9 8/8, University of Nottingham.
15. *Griffin K.B. and Enos J.L (1970).* «Foreign assistance: objectives and consequences», *Economic Development and Cultural Change*, 18(3), pp 313-27.
16. *Guillaumont P. et L. Chauvet (2001),* «Aid and Performance: A Reassessment», *Journal of Development Studies* 37.
17. *Hadji michael M.T, Ghura. D. (1995), Sub- Saharan Africa: Growth, Savings, and Investment*, 1986-1993, Occasional Paper 118, International Monetary Fund, Washington D.C.
18. *Hansen H., Tarp F., (2000), Aid effectiveness disputed,* Journal of International Development, 12(3) 375-398.
19. *Hansen H. et F. Tarp (2001), «Aid and Growth Regressions»*, Journal of Development Economics 64 (2).
20. *Isham, J., Kaufmann D., and L. Pritchett (1995),* «Governance and Returns on Investment: An Empirical Investigation», World Bank Policy Research Working, Paper Number 1550.
21. *Islam, N. (2002).* «Regime Changes, Economic Policies and the Effects of Aid on Growth», Paper presented at the Conference on Exchange Rates, Economic Integration and the International Economy, May, Ryerson University, Canada.
22. *Johansen, S (1988),* «Statistical analysis of cointegrating vectors», *Journal of Economic Dynamics and Control*, *Vol.12, No.2-3, pp.231-54.*
23. *Lensink R. et White H. (2000), «Assessing Aid: A Manifesto for Aid in the 21st Century?»* Oxford Development Studies 28(1).
24. *Levy, V. (1988)* «Aid and Growth in sub-Saharan Africa: The Recent Experience,» *European Economic Review* 32(9), pp 1777-1795.
25. *Mosley P., Harrigan J. et Toye J. (1995), Aid and Power*, Vol. 1 et 2, Rout ledge, London.
26. *OECD/DAC, (2001).* «Poor Performers: Basic Approaches for Supporting Development in Difficult Partnerships». Paris: OECD/DAC.
27. *OECD/DAC, (2005).* «Survey on Harmonization and Alignment», Paris: OECD/DAC.
28. *OECD, (2006) Development Co-operation Report*. Volume 7, No. 1. Paris: OECD.ISBN92-64-03651-2
29. *Radelet Steven (2003),* Challenging Foreign Aid: A Policymaker's Guide to the Millennium Challenge Account (Washington: Center for Global Development).
30. *Voidodas C. S. (1973),* «Exports, foreign capital inflow and economic growth», *Journal of International Economics*, Vol.3, pp.337-349.

Global Journal of Management and Business Research: B
Economics and Commerce
Volume 15 Issue 8 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Is Time Ripe to Adopt Islamic Financial Systems in Secular Developing Countries? A Review of Literature

By Byson Beracah Majanga
University of Malawi, Malawi

Abstract- The global financial crisis of 2007/8 is considered to be the worst after the 1930 Great Depression. Most finance scholars argue that the crisis was a sole result of the weaknesses of the interest related traditional or conventional banking system commonly used in almost all countries in the world. Islamic finance scholars contend that the crises would have been avoided, and that will never be experienced, if the world adopted Islamic banking principles rather than clinging on to the conventional banking systems. Since Islamic financial systems are linked to, and associated with the principles of Islamic religion, other scholars maintain that the conventional systems remain the best as they accommodate all persons without being aligned to the principles of a particular religion. That aside, studies show that Islamic banking has registered a reasonable growth in asset base, especially in the Islamic nations and efforts are still there to break into the economies which are non Islamic. This study analyses the basic principles of Islamic banking in comparison with the conventional systems, and looks at the challenges and opportunities that may arise in an economy when the two systems run and operate concurrently. The paper concludes that much as the two systems can complement each other in a nation, the respective regulators must weigh the benefits and costs arising from an involvement of a new banking system in an economy. The paper further provides room for further research on the subject matter on the basis of individual country's regulations regarding its financial systems.

Keywords: *islamic finance, conventional banking, economic growth.*

GJMBR - B Classification : *JEL Code: F00*

ISTIMERIPETOADOPTISLAMICFINANCIALSYSTEMSINSECULARDEVELOPINGCOUNTRIESAREVIEWOFLITERATURE

Strictly as per the compliance and regulations of:

Is Time Ripe to Adopt Islamic Financial Systems in Secular Developing Countries? A Review of Literature

Byson Beracah Majanga

Abstract- The global financial crisis of 2007/8 is considered to be the worst after the 1930 Great Depression. Most finance scholars argue that the crisis was a sole result of the weaknesses of the interest related traditional or conventional banking system commonly used in almost all countries in the world. Islamic finance scholars contend that the crises would have been avoided, and that will never be experienced, if the world adopted Islamic banking principles rather than clinging on to the conventional banking systems. Since Islamic financial systems are linked to, and associated with the principles of Islamic religion, other scholars maintain that the conventional systems remain the best as they accommodate all persons without being aligned to the principles of a particular religion. That aside, studies show that Islamic banking has registered a reasonable growth in asset base, especially in the Islamic nations and efforts are still there to break into the economies which are non Islamic. This study analyses the basic principles of Islamic banking in comparison with the conventional systems, and looks at the challenges and opportunities that may arise in an economy when the two systems run and operate concurrently. The paper concludes that much as the two systems can complement each other in a nation, the respective regulators must weigh the benefits and costs arising from an involvement of a new banking system in an economy. The paper further provides room for further research on the subject matter on the basis of individual country's regulations regarding its financial systems.

Keywords: islamic finance, conventional banking, economic growth.

I. Introduction

A financial system plays a vital role in the economic growth of a country by providing a link between those who save a part of their income to those who invest in productive assets, thereby providing a smooth and even flow of funds in the economy, and mobilising and usefully allocating scarce resources of a country. A financial system is a complex well integrated set of sub systems of financial institutions, markets, instruments and services which facilitate the transfer and allocation of funds, efficiently and effectively (Kohn, 2004). Through the generation of savings, investment, capital formation and growth, the financial system is possibly the most important institutional and functional vehicle for economic transformation. With a focus on its purposes, Van Horne & Wachowicz (2008) define the financial system as the purpose of financial markets to allocate savings efficiently in an economy to ultimate users either for investment in real assets or for consumption. The definition by Van Horne & Wachowicz (2008) extends and supports that of Christy & Roden (1976) who opined that the objective of the financial system is to supply funds to various sectors and activities of the economy in ways that promote the fullest possible utilisation of resources without the destabilizing consequence of price level changes or unnecessary interference with individual desires. According to Robinson (1995), the primary function of the system is to provide a link between savings and investment for the creation of new wealth and to permit portfolio adjustment in the composition of the existing wealth. The definitions given by and Robinson (1995); Christy & Roden (1976) and Van Horne & Wachowicz (2008), clearly demonstrate the importance of a strong financial system to the growth of a country's economy in as far as the flow of funds in concerned.

The global financial market operates under two main financial systems which are the conventional banking system and the Islamic banking system. The conventional banking system was founded on the principles of economics where a bank receives deposits from savers and avails the money to borrowers at an interest, part of which is used to compensate the depositors or lenders. On the contrary, Islamic banking was not founded on the principles of economics but rather on the principles of Islamic (or Sharia) laws. While conventional finance helps direct the flow of capital to investment opportunities that are supposed to provide the highest return in the market, Islamic finance allegedly seeks socioeconomic optimality in line with Islamic norms (Aytug & Ozturk, 2015). Instead of charging interest to the borrower, Islamic finance believes in sharing the risks associated with any activity the borrower intends to engage in with the borrowed funds (Pepinsky, 2010). Globally, growth of Islamic banks is on the increase of late with assets accumulating to over $1.7 trillion and annual growth estimated at 17.6% (World Islamic Banking Competitiveness Report 2013/14) especially in the developing economies in the Middle-East, and South

Author: The Malawi Polytechnic, University of Malawi-The Polytechnic Off Chipembere Highway, Chichiri, Malawi.
e-mail: bmajanga@poly.ac.mw

East Asia and some Arab states in Africa (Gait & Worthington, 2007).

Specifically, Islamic banking, which is run according to the Sharia principles, has some features which do not apply in conventional banking and these features are one of the sources of resistance among the secular nations to adopt Islamic finance systems. Some of the features which have been considered as a major part of this study include:

a) Prohibitions from investing in businesses involved in alcohol, gambling, drugs, tobacco, weapons, pork or anything deemed illegal by Islamic laws.
b) Existence of the Sharia Board to oversee and regulate the operations of an Islamic bank in a country.
c) Prohibition from investing in companies having too much borrowing of at least 33% of a company's stock market value.
d) Prohibition from transactions which involve speculation or expectation of extreme risk.

The purpose of this study is to assess the possibility of a co-existence between the two banking systems in an economy which is not under any significant influence of a particular religious sect. To accomplish this objective, the study emphasises on review of existing literature on Islamic and non Islamic nations and how their respective financial regulations, conditions and legal environments would ensure the coexistence of the two systems, and finally provides recommendations based on the literature.

II. Literature Review

Studies reveal that Islamic banking was there in the ancient days during the 7th century before coloniolisation of Arab nations by the West (Moore, 1997), and that since then up to the 19th century all the Muslim countries were under the Western colonial masters who brought the capitalist system thereby making Islamic finance system less effective (Anwar, 1995). As most Arab countries were getting their independence in the 19th century, Islamic economists considered reintroducing the Islamic principles in running their financial systems. It is suggested, according to Iqbal & Molyneux (2005), that the first attempt to establish an Islamic bank was in 1971 in Egypt. Since then Islamic banking industry grew at impressive rates and according to banking statistics the growth rate of Islamic banking has outpaced that of the traditional banking in the past two decades (Ghannadian & Goswami, 2004). Most researchers have pondered on fundamental questions relating to whether Islamic banks are unique from an economic standpoint. Islamic banks have been compared to their conventional counterparts on various measures such as efficiency, liquidity and profitability. In addition, capital market products such as Islamic mutual funds have also been the subject of recent research (Omar, 2015). Mirakhor & Bao (2013) argue that before the inception of the Islamic finance industry, there was what could be called a market failure in the conventional financial system due to the substantial unmet demand for financial products in compliance with Islamic belief. The Islamic finance industry therefore grew out of the conventional finance subsystem to meet this demand. In his paper regarding the global financial crisis, Hassan (2010) shows how Islamic economic systems can bring the much needed financial stability which he argues the financial economic system has failed to achieve. In their paper, Imam & Kpodar (2015) found that regardless of its relatively small size, Islamic banking is positively associated with economic growth even after controlling for various determinants, including the level of financial depth. Islamic finance could, according to Sheng & Singh (2013) become a formidable competitor to the current dominant financial system and as a result, the world would have much to gain if the two systems were to compete fairly and constructively to meet people's needs for different types of finance. Sheng and Singh (2013) also touted the cooperation between these two systems as eminently desirable as they could cooperate and even compete to produce the best outcome for common projects, such as the provision of cheap banking for the world's poor or for investment in environmental undertakings. Researchers argue that it is likely that Islamic banking and conventional banking will not have different impacts on economic growth as long as they finance the same projects (Imam & Kpodar, 2015). However, Islamic banking is said to have more advantages compared to conventional banking even beyond the borders of Islamic nations. Unlike in conventional banking where lending is based on risk shifting, in Islamic banking lending is based on risk sharing which in principle encourages more investment by individuals (Ben-Naceur, Barajas & Massara, 2015). According to El-Gawady (2008), the Islamic banks attach varying degrees of importance to the elements of the 5Cs (that is, capacity, capital, collateral, character and conditions) from that of the conventional or commercial banks. The commercial bank gives priority to the collateral, whereas the Islamic bank gives priority to character of customer. Whereas the commercial banks are more interested in the capital and capacity, the Islamic banks are more interested in capacity than in capital. However, El-Gawady (2008) concedes that there may be some similarity between the commercial bank and the Islamic bank on the issue of priority attached to the security and soundness of any project submitted to the bank for the purpose of financing. The fact that Islamic finance subscribes to the beliefs of a particular sect of people, its operations could see more individuals and firms making savings in a formal financial sector in a country (Demirguc-Kunt, Klapper,& Randall, 2013) and that by not being involved in derivatives and other complex instruments which lead to speculations, Islamic banks are considered likely to contribute to financial stability, especially during financial crises as research has proved that Islamic banks performed twice as much better than conventional ones during the 2007/8 global financial crisis (Hassan & Dridi, 2010). Islamic banks however, by virtue of being newer and smaller in contrast with conventional banks, lack economies of scale (Hassan & Dridi, 2010) and therefore lack efficiency and cost effectiveness in their operations (Beck, Demirguc-Kunt & Merrouche, 2010); and Islamic banking systems lack liquid instruments (Moody's, 2009) which in turn limit investors' participation on the money market. In comparing the superiority of the two banking systems, Safiullah (2010), in his study finds that the interest based conventional banking performs better based on commitment to economy and community, productivity and efficiency whereas the interest free Islamic banking performs better based on business development, profitability, liquidity and solvency. In his study, Massoud (2015) concluded that while Islamic finance is in theory believed to be a plausible alternative to conventional banking, in practice, it fails to do so due to the high levels of operational and liquidity risks, and failure to provide a new range of products to its customers.

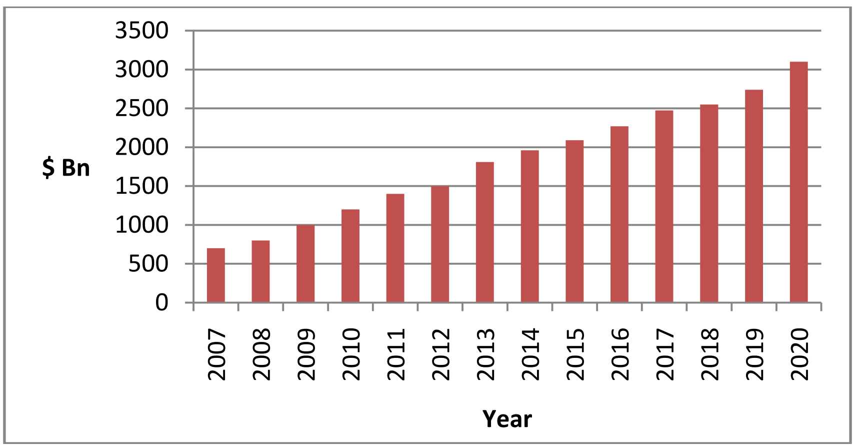
a) Islamic and secular economies

A secular state is a concept of *secularism,* whereby a *state* or *country* purports to be officially neutral in matters of *religion,* supporting neither religion nor irreligion. Such states also claim to treat all citizens equally regardless of religion, and claim to avoid preferential treatment for a citizen from a particular religion/non religion over other religions/non religion. Secular states do not have a *state religion* (established religion) or equivalent, although the absence of a state religion does not necessarily mean that a state is fully secular; however, a true secular state should steadfastly maintain national governance without influence from religious factions. On the other hand, an Islamic state is a type of government, in which the primary basis for government is the enforcement of Sharia, dispensation of justice, maintenance of law and order. Investors may prefer an economic system which is based on a religious principle than a secular one because according to Badshah, Mellemvik & Timoshenko (2013), religion shapes and enforces ethical behaviour and therefore societies which have religious values of justice, truthfulness and honesty may be characterized by a high level of trust in financial and business affairs. The affiliation and linkage of Islamic banking systems to the Islamic principles of Sharia poses a great challenge to their establishment and development in non Islamic and secular states. Many banking beneficiaries consider Islamic banking as a way of advancing one religion at the expense of others and this view brings heavy resistance among the populace in a secular state. According to Joy Online, many Christian leaders argue that promoting Islamic finance at a time when security forces across the globe are battling Islamic fundamentalists could be dangerous to the world economy at large. According to them, the world is not yet mature for Islamic banking which is being promoted by the World Bank Group. This perception is also supported by Bello & Abubakar (2014) who, in their study confirm that Islamic banking systems face operational challenges in the form of religious and cultural differences in Nigeria. Regardless of this fact, Bello & Abubakar (2014) still maintain that Islamic banking is still possible in Nigeria, which has an almost equal proportion of Muslims to Christians (Index Mundi, 2014), due to the fact that there is a large market for it; it has constitutional backing; it provides a choice of investment to its clients; the presence of a new Central Bank of Nigeria's regulatory framework for Islamic finance; its advantages over conventional banking, which are zero interest rate, equitable distribution of wealth, lawful transactions, promotion of morality in transactions and others. Regardless of the differences in religious principles, the two financial systems are on record to have contributed immensely towards the global economic development. A strong and resilient banking system is the foundation for sustainable economic growth, as it offers improved financial decisions, supports the better distribution of resources and thereby accelerates economic growth (Monnin & Jokipii, 2010) and Haldane, Brennan, & Madouros (2010). Moreover, banks provide critical services to consumers, small and medium-sized enterprises, large corporate firms and governments who rely on them to conduct their daily business, both at domestic and international levels. Any modern financial system contributes to economic development and the improvement in living standards by providing various services to the rest of the economy which include clearing and settlement systems to facilitate trade, channeling financial resources between savers and borrowers, and various products to deal with risk and uncertainty (Bollard, Hunt & Hodgetts, 2011). Most researchers have studied the global economic performance of various individual firms and countries operating under the conventional banking systems which are synonymous with charging interests on loans unlike sharing the risks with borrowers as is the case with Islamic banking systems. Benhayoun, Chairi, Gonnouni & Lyhyaoui (2014) concluded through SVM prediction model that interests on loans can highly increase unexpected financial crises in individual companies as well as countries. These results are supported by the findings of Fauzi, Locke, Basyith, and Idris (2015) which revealed that Islamic debt has a significant positive impact on company value and

Global Journal of Management and Business Research (B) Volume XV Issue VIII Version I Year 2015

financial performance, and that the coefficient for Islamic debt is higher than that for non-Islamic debt, suggesting that the Islamic debt provides a higher contribution to firm value and to the improvement of firms' financial performance compared to non-Islamic debt. In another study, Tabash & Dhankar (2014) analysed empirically the relationship between the development of Islamic finance system and growth of the economy in the United Arab Emirates (UAE), using time series data from 1990 to 2010 with Islamic banks' financing credited to private sector through modes of financing as a proxy for the development of Islamic finance system and Gross Domestic Product (GDP), Gross Fixed Capital Formation (GFCF) and Foreign Direct Investment inflow (FDI) as proxies for real economic growth. Their findings indicate the existence of a causal relationship between Islamic banks' financing to economic growth, and that Islamic banks' financing has contributed to the increase of investment and in attracting Foreign Direct Investment inflow (FDI) in the long term and in a positive way in UAE. Islamic banking, though considered new and young, is globally growing as measured by assets and the growth is expected to increase in the future (El-Hersh, 2014). The growth of Islamic assets is shown in the figure below:

Figure 1 : Global Growth of Islamic Banking in assets



Source: El- Hersh (2014)

III. Discussion of Shariah Prohibitions in Relation to Conventional Banking

Secular countries can welcome and accommodate Islamic banking systems initially by creating Islamic windows within their own conventional banks (Di Mauro, et al, 2013) Once a conventional bank has operated an Islamic window for some time and has gathered a sizeable customer base for its Islamic activities, it may decide to establish an Islamic subsidiary, or even fully convert into a full-fledged Islamic bank where it will be able to offer, under one roof, a wider range of Shariah-compliant banking products than through the Islamic window alone (Sole, 2007). Similarly, Gelbard, et al (2014) suggest that as a first step, policy makers could introduce Islamic financing windows within of the conventional system and facilitate sukuk issuance to tap foreign investors and that establishment of full-fledged Islamic banks require addressing systemic issues, and adapting the crisis management and resolution frameworks which the IMF can assist by sharing international experiences and providing advice on supervisory and regulatory frameworks as needed. Below is the discussion of some of the possible areas, arising from Islamic prohibitions, which may breed conflicts between the two systems, conventional and Islamic banking systems. The paper looks at these areas from both a positive and a negative side on the economic impact.

Islamic banking systems prohibits investments in businesses dealing with alcohol, gambling, drugs, tobacco, weapons, pork or anything else considered illegal by the sharia (HSBC Global Asset Management, 2011). Industries involved in these activities contribute greatly to the national economy and therefore these industries would not benefit from the services of the Islamic banks. The only way out for these would be the conventional banks and therefore the country's financial system would be seggregatory. This could have a negative impact on industry performance hence economic growth. According to the Institute of Alcohol Studies (2013), the production and consumption of alcohol products contribute greatly to the global economy from three fronts namely, monetary value in sales, taxation received by the treasury, as well as job creation. The Institute argues that the industry directly employs 650,000 people in the UK alone, and contributes about 13.5% of tax receipts to the revenue authorities. The report further argues that alcohol products have contributed heavily towards the annual export revenues world over as depicted by figure 2 below:

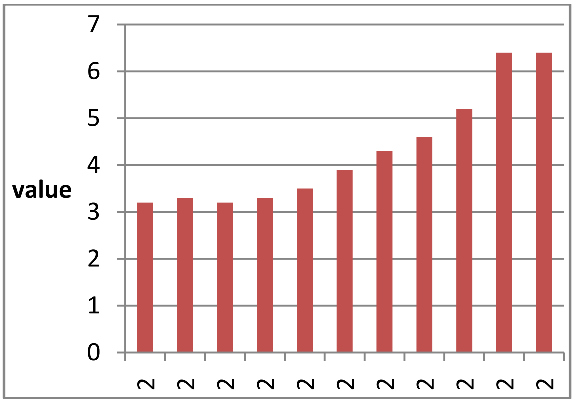
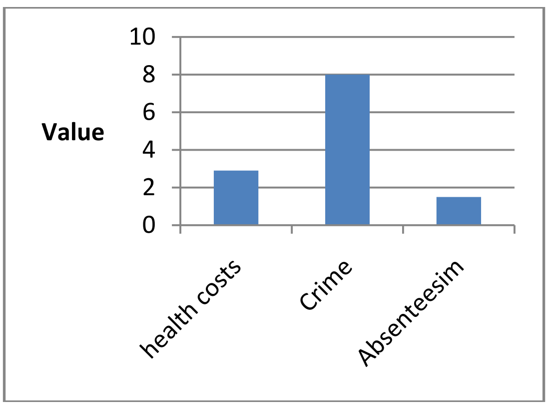


Figure 2 : Total alcohol Exports in £ bn



Source: Institute of Alcohol Studies (2013)

Figure 3 : Total alcohol costs in £ bn

The Institute, however, acknowledges the externalities associated with alcohol production and consumption and in their report, they categorise costs in the view of health, crime and loss of productivity. In UK, the three costs were summarised as shown in figure 3 above. On a similar note, the report released by the Canadian Gaming Association (2008), concludes that responsible gaming has contributed to the Canadian economy directly and indirectly in form of revenue contribution, tourists attraction and job creations. The conclusion by the CGA is supported by Bazelon, Neels and Seth (2012), who in their report assessing the economic impacts of the commercial casino industry show that the industry supported approximately $125 billion in spending and nearly 820,000 jobs in the U.S. economy in 2010, which is roughly equivalent to 1 percent of the $14.5 trillion U.S. GDP. Though there is a minor drop in export of tobacco in Malawi, one of the developing countries in Africa, records still maintain that tobacco takes a large proportion of the country's exports per annum (Ngwira, 2012). Furthermore, reports show that the global tobacco industry contributes substantially to the economies of more than 100 countries, and millions of people worldwide depend on it for employment. Even in countries that do not have tobacco manufacturing or leaf growing activities, tobacco retail and distribution is an important source of economic activity (British American Tobacco, 2013). The operation of Islamic banking system requires total compliance to Sharia and the presence of the Sharia board to oversee the system (Sole, 2007). To successfully operate, an Islamic bank needs to be regulated by a regulator made up of a combination of Sharia experts and ordinary secular experts. Ordinarily, secular countries that are developing have their central banks which take the overseeing and supervisory role of financial institutions. The coming in of the Sharia board, which is the main overseer of Islamic banking and financial institutions (Hassan, 2007) would cause a conflict as both the board the central banks will have the same mandate but viewed from different principles. Further, Alaro & Zubair (2009) argue that as long as the conventional financial institutions have not amended their basic laws and charters to conform to the Sharia standards, there can be no basis for an arm of them claiming to be independently Sharia compatible. Alaro & Zubair (2009) see the situation as the way to succumb to a ploy of allowing conventional banks to engage in deceitful acts of exploiting the uninformed investors on the one hand, and unfairly competing with bona fide Islamic financial institutions on the other hand. Unlike conventional banking, Islamic banking laws prohibit investing in companies that have too much borrowing of at least 33% of the company's stock market value. In agreement to this prohibition, Akeem, et al (2014) observed in their study findings that capital structure measures are negatively related to firm performance, and went further to recommend that firms should use more of equity than debt in financing their business activities. They however, acknowledge that a firm's value can be enhanced using debt capital than equity capital. Similar findings were also reported by Nirajini & Priya (2013) who establish a correlation between capital structure and financial performance of trading companies listed in Sri Lanka. Although it is recognised that moderate levels of debt improve welfare and enhance growth at national, corporate and household level, Cecchetti, Mohanty & Zampolli (2011 and Ogebe, Ogebe & Alewi (2013) suggest the need for establishment of thresholds or limits to the composition of debts in a nation, corporate and household level, as too much debt becomes a drag to growth. Most companies in the developing countries, as well as developed countries survive on borrowing even to the extent of having a debt/equity ratio of more than 80%. Such companies have been registering a sound performance and have gradually reduced the gearing situation to acceptable levels. Tunji, Adebayo & Tolulope (2015) argue that efficiently managed gearing could lead to increase in earnings of the company and that gearing is important for a company to stand the test of time in a competitive market. They found that gearing has direct relationship with the performance of a company and provides some financial advantages with positive impact on profitability. A similar study condected by Audretsch & Lehmann (2003) on firms listed on the *Neuer Markt* in German revealed that small and innovative firms prefer to be financed by venture capitalists (a very expensive source of debt capital) and that the performances of such firms exceed that of those financed by other means. By prohibiting transactions which involve speculation or expectation of extreme risk, the Islamic financial system limits, or at times entirely prohibits the operation of the futures and the option markets which are crucial in managing risks in investment and financial decision making. Of late, the volume of international trade and business has increased due to globalisation and liberalisation making the business environment more risky than it was (Jecheche, 2012). The risky environment has not spared the banks and inefficient risk management techniques have led to the collapse of a number of financial institutions. Channar, Abbasi & Maheshwar (2015) in their study found that Conventional Banks have more effective risk management process as compared to the Islamic Banks. They also found that risk management has a positive relationship with financial performance. Apart from its importance in the banking sector, risk management as well leads to the success of firms in different sectors. The study by Didraga (2013) on project management showed that risk management is a very important component of the project management process and it is assumed implicitly to work in favour of project success. The hibah, which is a voluntary gift Islamic banks make to their customers on their savings account balances, is a variant of interest an investor receives from their deposits with a commercial bank. According to Gait & Worthington (2007), unlike conventional banks, banks and customers in Islamic banking systems do not earn money returns without evidence of a direct collaboration between capital and effort. Therefore, Islamic banks cannot act as a financial intermediary in the strictest sense since this would involve accepting deposits from individuals or firms, who anticipate interests; and lending them to borrowers (at an interest as well) who are also individuals or firms. Since the hibah is a voluntary gift, there is a possibility that banks may not give it out due to some other circumstances even after using the customers' funds for their operations. This according to Moody's (2009) would discourage private investors from participating in the money markets.

IV. Conclusion

The advent of Islamic finance, if looked at from a neutral point of view, and not from a religious perspective, could be a blessing in disguise considering the social economic benefits and contributions the system has made to the economy world over as revealed by literature. The challenge, however, is that the system is inseparable from the principles of a particular religion, making the general public associate it with Muslim investors only. Literature has shown that the two financial systems can operate together in a secular nation where they may complement each other as each system has its own operational weaknesses and challenges. The authorities in the countries should however consider the social and economic consequences and or benefits arising from the adoption of the new financial system to be introduced. A proper cost benefit analysis is required considering the fact each system has its own effects on the social economic well being of the citizenry especially in the developing nations. All in all, studies have shown that Islamic finance can make a good complement and not a substitute to the traditional systems that reign in the developing and secular nations.

References Références Referencias

1. Akeem, L., Terer, K., Kiyanjui, M., and Kayode, M (2014) *Effects of Capital Structure on Firm's Performance: Empirical Study of Manufacturing Companies in Nigeria*. Journal of Finance and Investment Analysis, Vol 3 No 4, 2014, 39-57. Scienpress Ltd.
2. Al- Hersh, N (2014) *The Advancement of Islamic Banking and Finance in Global Markets.* International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS), 2014, Vol 1, No.8. 11-18.
3. Alaro, A & Zubair, A (2009) *Legal and Operational Frameworks of Islamic Windows in Conventional Financial Institutions: Nigeria as a Case Study*. 1st University of Ilorin International Conference on Islamic Banking and Finance, Saudi Arabia, October 6-8, 2009.
4. Anwar, A. (1995). *Riba and Common Interest.* Shafiq Press, Karachi.
5. Audretsch, D & Lehmann, E (2003) *Financing High-Tech Growth: The Role of Debt and Equity.* Unpublished.
6. Aytug H, Ozturk, H (2015). *Conventional banks versus Islamic banks: What makes the difference?* In H A El-Karanshawy et al. (Eds.), Islamic Banking and Finance – Essays on corporate finance, efficiency and product development. Doha, Qatar: Bloomsbury Qatar Foundation.
7. Badshah, I, Mellemvik, F and Timoshenko, K (2013) *Accounting from a religious perspective: a case of the Central government accounting in Islamic republic of Pakistan*, Asian Economic and Financial Review 3(2): 243-258.
8. Bazelon, C., Neels, K and Seth, P (2012), *Beyond the Casino Floor: Economic Impacts of the*

Commercial Casino Industry. Prepared for American Gaming Association.

9. Beck, T., Demirguc-Kunt, A & Merrouche, O (2010), *Islamic vs. conventional banking: business model, efficiency and stability,* World Bank Working Paper No.5, 446.
10. Bello, A & Abubakar, M (2014) *Challenges and Solutions to Islamic Banking System in a Pluralistic-Secular Country Like Nigeria*, Mediteranean Journal of Social Sciences, Vol 5 No 6.
11. Benhayoun, N., Chairi, I., Gonnouni, A, & Lyhyaoui, A (2014), *Islamic Banking Challenges lie in the growth Of Islamic Economy Despite the free Interest loans Policy: evidences from support Vector machine approach.* ACRN Journal of Finance and Risk Perspectives Vol. 3, Issue 1, Jan. 2014, p. 19 – 31. ISSN 2305-7394.
12. Ben-Naceur, S., Barajas, A & Massara, A (2015) *Can Islamic Banking Increase Financial Inclusion?* IMF Working Paper No. 31.
13. *Bollard, A., Hunt, C & Hodgetts, B (2011) The role of banks in the economy - improving the performance of the New Zealand banking system after the Global Financial Crisis. Reserve* Bank of New Zealand.
14. British American Tobacco Annual Report, (2013) Canadian Gaming Association, (2008) *Economic Impacts of the Canadian Gaming Industry*: Key Findings Report, HALT Advisory, Toronto.
15. Cecchett, S., Mohanty, M & Zampolli, F (2011) *The real Effects of debt*. BIS Working Paper No 352. http://www.bis.org/publ/work352.htm.
16. Channar, Z., Abbasi, P & Maheshwar, M (2015) *Risk Management, A Tool for Enhancing Organisational Performance. (A Comparative Study Between Conventional and Islamic Banks)* Palistan Business Review, 2015.
17. Christy, G & Roden, P (1976) *Finance: Environments and Decisions*. 2nd Edition, Carnfield Press. ISBN: 0063825058
18. Demirguc-Kunt, A., Klapper, L & Randall, D (2013), *Islamic Finance and Financial Inclusion: Measuring Use of and Demand for Formal Financial Services among Muslim Adults,* World Bank Policy Research Paper No. 6642.
19. Di Mauro, F., Caristi, P., Couderc, S., Di Maria, A., Ho, L., Kaur Grewal, B., & Zaheer, S. (2013). *Islamic finance in Europe*. ECB Occasional Paper, (146).
20. Didraga, O (2013) *The Role and Effects of Risk Management in IT Projects Success*. Informatica Economatica, Vol 17 No 1.
21. El-Gawady, Z. M. (2008). *Possibility of Cooperation between Islamic Banks and Conventional Banks*. Misr university for Science and Technology, Giza, Egypt, Rep.
22. Fauzi, F., Locke, S., Basyith, A., and Idris, M (2015). *The impact of Islamic debt on company value.* In H A El-Karanshawy et al. (Eds.), Islamic banking and Finance – Essays on corporate Finance, efficiency and product development. Doha, Qatar: Bloomsbury Qatar Foundation.
23. Gait, A & Worthington, AC (2007) *A Primer on Islamic Finance: Definitions, Sources, Principles and Methods,* University of Wollongong, School of Accounting and Finance Working Paper Series No. 07/05, 2007.
24. Gelbard, E., Hussain, M., Maino, R., Mu., Y &. Yehoue, E (2014) *Islamic Finance in Sub-Saharan Africa: Status and Prospects,* IMF Working Paper, WP/14/149.
25. Ghannadian, F & Goswami, G, (2004), *Developing economy banking: the case of Islamic banks*, International Journal of Social Economics, Vol. 31 Issue 8 pp. 740 – 752.
26. Haldane, A., Brennan, S., & Madouros, V. (2010) *What is the contribution of the financial sector: Miracle or mirage?* The Future of Finance, 87.
27. Hassan, A (2007) *Optimal Shariah Governance In Islamic Finance*. International Islamic University, Malaysia, unpublished.
28. Hassan, A (2010) *The Global Financial Crisis and Islamic Banking.* Unpublished. Available on http://www.islamic-foundation.org.uk/islamiceconomicspdf/hassan-financialcrisis-if.pdf.
29. Hassan, M & Dridi, J (2010) *The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study*, IMF Working Paper No. 201.
30. HSBC Global Asset Management (2011) *Introduction to Islamic Investing*, HSBC, UK. http://www.myjoyonline.com/business/2015/april20th/-christians-resist-islamic-banking.php
31. Imam, P & Kpodar, K (2015) *Is Islamic Banking Good for Growth?* IMF Working Paper WP/15/81.
32. Index Mundi (2014) *Nigeria Demographics Profile 2014*, http://www.indexmundi.com/nigeria/demographics_profile.html
33. Institute of Alcohol Studies (2013) *Economic Impacts of Alcohol Factsheet*, London.
34. Iqbal, M. & Molyneux, P (2005). *Thirty Years of Islamic Banking: History, Performance, and Prospects*. Palgrave Macmillan, Houndmills: New York.
35. Jecheche, P (2012) *Basics of futures and forward contracts discussed from a risk management perspective*. Journal of comprehensive Research.
36. Kohn, M G. (2004) *Financial institutions and markets* (2nd ed.). New York: Oxford University Press.
37. Massoud, A (2015) *Islamic vs. Conventional Banking in Financial Intermediation: What does the Case of Egypt show?* Applied Economics and Finance, Vol 2 No 3.
38. Mirakhor, A & Bao, W (2013) *Epistemological Foundation of Finance: Islamic and Conventional.* In Economic Development and Islamic Finance. ISBN 978-0-8213-9953-8-ISBN 978-0-8213-9954-5 (ebook).

39. Monnin, P, & Jokipii, T (2010) *The impact of banking sector stability on the real economy* (No. 2010-05). Swiss National Bank.
40. Moody's, (2009), *The Liquidity/Leverage Trade-Off for Islamic Banks-and its Impact on Their Ratings* (Moody's Investors Service).
41. Moore, P. (1997). *Islamic Finance: A Partnership for Growth*. Euromoney, London.
42. Ngwira, N (2012) *Drivers of Economic Growth in Malawi*, ECAMA Annual Conference November 2012: Malawi.
43. Nirajini, A & Priya, K (2013) *Impact of Capital Structure on Financial Performance of the Listed Trading Companies in Sri Lanka*. International Journal of Scientific and Research Publications, Volume 3, Issue 5, May 2013. ISSN 2250-3153.
44. Ogebe, P., Ogebe., J and Alewi, K (2013) *The Impact of Capital Structure on Firms' Performance in Nigeria*. Munich Personal RePec Archive, MPRA Paper No. 46173.
45. Omar, MA (2015) *Preface. In H A El-Karanshawy et al. (Eds.), Islamic banking and finance – Essays on corporate finance, efficiency and product development*. Doha, Qatar: Bloomsbury Qatar Foundation.
46. Pepinsky, T (2010) *The Demand for Islamic Bnaking: Piety, Class and Global Indentity*, International Political Economy Society, Cambridge.
47. Robinson, A (1995) *Russia and its Banking System.* Euro Money Publications. ISBN: 1855643979, 9781855643970
48. Safiullah, M (2010) *Superiority of Conventional Banks & Islamic Banks of Bangladesh: A Comparative Study*. Internation Journal of Economics and Finance, Vol 2, No. 3.
49. Sheng, S & Singh, A (2013) *Islamic Finance Revisited: Conceptual and Analytical Issues from the Perspective of Conventional Economics*. Economic Development and Islamic Finance. http://dx.doi.-org/10.1596/978-0-8213-9953-8
50. Sole, J (2007) *Introducing Islamic Banks into conventional Banking Systems* IMF Working Paper, WP/07/175.
51. Tabash, M & Dhankar, R (2014) *Islamic Finance and Economic Growth: An Empirical Evidence from United Arab Emirates (UAE)*. Journal of Emerging Issues in Economics, Finance and Banking, 2014, Vol 3 Issue 2.
52. Tunji, S., Adebayo, O & Tolulope, O (2015) *Impact of Gearing on Performance of Companies.* Arabian Journal of Business and Management Review (Nigerian Chapter) Vol 3 No. 1.
53. Van Horne, J & Wachowicz, J (2008) *Fundamentals of Financial Management,* FT Prentince Hall.

Global Journal of Management and Business Research: B
Economics and Commerce
Volume 15 Issue 8 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Trade and Income Distribution in Pakistan

By Zeba Amjad
BZU University Multan, Pakistan

Abstract- This study analyses the fact that trade and income distribution. The objective of the study is to investigate the impact of trade on income distribution in Pakistan. This study shows that trade increases income inequality using time series analysis from Pakistan empirical analysis. In this study a little attention is given to the theories regarding income distribution. The data is processed from 1980 to 2010 an OLS technique is used to get results. Gini coefficient is used as a measure of income inequality. The results found shoes that trade has negative impact on income distribution and income inequality is negatively affected by remittances, and GDP but population growth has negative impact on income inequality.

Keywords: *trade, income inequality, Gini coefficient and Pakistan.*

GJMBR - B Classification : *JEL Code: F19*

TRADEANDINCOMEDISTRIBUTIONINPAKISTAN

Strictly as per the compliance and regulations of:

Trade and Income Distribution in Pakistan

Zeba Amjad

Abstract- This study analyses the fact that trade and income distribution. The objective of the study is to investigate the impact of trade on income distribution in Pakistan. This study shows that trade increases income inequality using time series analysis from Pakistan empirical analysis. In this study a little attention is given to the theories regarding income distribution. The data is processed from 1980 to 2010 an OLS technique is used to get results. Gini coefficient is used as a measure of income inequality. The results found shoes that trade has negative impact on income distribution and income inequality is negatively affected by remittances, and GDP but population growth has negative impact on income inequality.

Keywords: trade, income inequality, Gini coefficient and Pakistan.

I. Introduction

This paper addresses the influence of foreign trade on inequality or, more generally, on the distribution of income, with a focus on Pakistan. Since the 1980s many developed and developing countries have experienced increases in within-country inequality. The growing income gap has coincided with the period of increasing exposure of countries to globalization through increased flows of goods, services, capital and labour across international borders. These developments have instigated a large debate in the academic and policy circles as to whether globalization is responsible for the growing inequality within countries. A prime objective of globalization is to provide better quality of life around the world by taking advantage of the international market. International trade also provides scope for economic development and poverty reduction. But the anti-globalization processions and demonstrations are commonplace whenever there is a World Trade Organization (WTO) meeting which suggests that all is not well with globalization.

All foreign investments except those directly connected with the importation of goods or services (amounting to deferred payments on imports) supplement the spending power of the receiving country (unless offset by macroeconomic policy, which will be assumed not to occur in what follows), which in general will be separated between imports and domestic goods and services. In general, one would expect an inward capital flow to lead to a rise in the prices of nontaxable goods and services relative to imported goods and services. If the country is a price-taker on world markets, the price of non-tradable will also rise with respect to export products. This change will affect incomes (e.g. urban land rents) of factors that are used intensively either in non-tradable or in tradable.

Foreign assistance for infrastructure should raise national income; if it is dedicated to the purchase of imported tools, it will simply augment the domestic capital stock, raising factor incomes all around except for capital in direct antagonism with the new investment. If it is devoted in part to local manufacture, it will during the period of construction raise demand for labor, both unskilled and those with relevant construction skills. That will be a transitory effect, but for large projects may last for many years; and when such aid flows continue over decades, they can create the basis for an indefinitely enlarged construction industry. Foreign direct investment (FDI) introduces a wider set of issues. Inflows of capital usually accompany FDI, but in some cases they may be its least important feature. It also may bring improved management, new production techniques, quality control, and access to foreign markets that would otherwise be difficult to develop; as well as providing competitive pressures on local producers, in the market for labor as well as for goods and services. Trade liberalization has a stronger impact on increasing employment elasticity of economic growth and poverty reduction, as compared to import substitution and/or closed economies initiatives. An open economy allows a country to restructure its domestic production in line with its comparative advantage (Krueger, 1998). Nevertheless, staunch critics of globalization usually emphasize that the benefits of this economic growth have little likelihood of being evenly distributed; and thus, its impacts may affect the poor rather adversely.

II. Research Objectives

The main objective of this research is to investigate the effect of trade on income distribution in Pakistan.

a) Literature Review

Kim(1984) has analysed structure of foreign trade and income distribution (A case study of Mexico). Using Mexico's input-output tables and household survey data, this paper examined various trade strategies and their relationship to commodity production with a view to assessing their effect on the distribution of income. The model incorporates income-induced multiplier effects, taking into account the full range of input import-substitution possibilities. The results of this paper show that the difference in the impact on income, particularly, of the lower incomes, are

Author: BZU University Multan, Pakistan.
e-mail: zebaamjad786@gmail.com

most marked in the tensions between exportable and import competing activities. On the whole, production per unit of output in the non-tradable sector produced as much factor income as that in the export sector. Expansion of exportable activities marginally improved the economic position of the poor in relation to other income groups, but only when direct effects were taken into-account. If, however, domestic production meets the needs of intermediate imports, then the distribution of income remain unaffected by alternative trade strategies.

Masche and vivarelle (2009) have analyzed The Trade and Income Inequality in Developing Countries. They used a dynamic specification to estimate the impact of trade on within-country income inequality in a sample of 65 developing countries (DCs) over the 1980–99 period. Their results suggested that trade with high income countries worsen income distribution in DCs, through both imports and exports. These findings provide support to the hypothesis that technological differentials and the skill biased nature of new technologies may be important factors in shaping the distributive effects of trade. Moreover, they observed that the previous results only hold for middle-income countries (MICs); they interpret this evidence by considering the greater potential for technological upgrading in MICs.

Hsu and Wu (2012) Foreign direct investment and income inequality: Does the relationship vary with absorptive capacity? They analyzed the effects of foreign direct investment (FDI) on income inequality and asked whether the relationship depends on absorptive capacity or not, by using a cross-sectional dataset taken from 54 countries over the period 1980–2005. They adopt the endogenous threshold regression model proposed by Hansen (2000) and Caner and Hansen (2004) and find strong evidence of a two-regime split in our sample. That is, FDI is likely to be harmful to the income distribution of those host countries with low levels of absorptive capacity. By contrast, thier results supported the perspective that FDI has little effect on income inequality in the case of countries with better absorptive capacity. It is also shown that international trade can lead to more equal income distribution.

Gao (2004) has analysed The FDI, openness and income. This was an empirical study of the impact of foreign direct investment (FDI) on income. That was presents cross-country evidence that inward FDI is positively correlated with income. In addition, an instrument for FDI is constructed to address the issue of endogeneity. The results of the paper showed that instrumental-variables estimates of the impact of FDI on income was positive and greater than OLS estimates, similar to the findings on trade in Frankel and Romer (1999). The evidence in this paper suggested that inward FDI contributes to higher income, and favours the argument of Irwin and Tervio¨ (2002) that trade openness is subject to measurement error in particular, trade is an imperfect proxy for many income enhancing interactions between countries.

Pose (2010) has examined the relationship between openness and within-country regional inequality across 28 countries over the period 1975-2005, paying special vattention to whether increases in global trade affect the developed and developing world differently. He used a combination of static and dynamic panel data analysis, he found that while increases in trade per se do not lead to greater territorial polarisation, in combination with certain country-specific conditions, trade had a positive and significant association with regional inequality. In particular, states with higher interregional differences in sectoral endowments, a lower share of government expenditure, and a combination of high internal transaction costs with a higher degree of coincidence between the regional income distribution and regional foreign market access positions have experienced the greatest rise in territorial inequality when exposed to greater trade flows. This means that changes in trade regimes have had a more polarising effect in low and middle income countries, whose structural features tend to potentiate the trade effect and whose levels of internal spatial inequality are, on average, significantly higher than in high income countries.

In a seminal paper, Frankel and Romer (1999) examined the impact of trade on income. They used data for 150 countries for the year 1985. In order to correct for the endogeneity of trade, they employed Instrumental Variable (IV) techniques, and used country's geographic characters such as countries' distance from their trading partners as instruments for trade. They showed that trade has statistically significant impact on income across countries.

Rodriguez and Rodrik (2001) studied the impact of trade policies on economic growth and their finding questioned the validity of results obtained by Frankel and Romer (1999). They found little evidence supporting the claim that open trade policies are positively associated with economic growth and also concluded that the existing correlation is unauthenticated. They argued that the geography-based instruments used in the earlier studies might be correlated with other geographic variables that affect income through non-trade channels and the trade estimate is just capturing these non-trade effects. This is well supported by their empirical results that the trade coefficient was not statistically significant when geography indicators are introduced as controls in the income equation.

III. Conceptual Framework

"Distribution of income" has several quite different meanings, apart from the issue of the specific measurements that are used to describe it. Economic theory has mainly been concerned with the functional distribution of income, that is, with the returns to different identifiable factors of production and their respective shares in total income of a particular country, such as the share of labor income in national income. Popular and political discourse is more concerned with the size distribution of income, such as the fraction of national income accruing to the top ten percent, or the bottom decile, of residents of the country in question -- and in particular on whether inequality has risen or declined. In recent years, concern with the size distribution of income has extended to the global distribution, where observations are on countries, grouped by per capita income, rather than on individuals.

The two concepts of distribution are related by the ownership of the factors of production, especially land in a predominantly agrarian economy, capital in a modern economy. If ownership of land and capital were evenly distributed across a population, even significant changes in the functional distribution of income would have little impact on the size distribution of income. Somewhat surprisingly, simulated empirical models suggest that the size distribution of income, while significantly influenced by the overall development strategy and the institutional structure of a particular country, is little influenced by economic shocks or by modest changes in policy within a given strategy (Adelmanand Robinson, 1989).

Within in the Heckscher-Ohlin framework policy-induced increases in labor-intensive exports would be expected to reduce the demand for labor-intensive production in capital-rich importing countries, and this would reduce the total demand for unskilled labor, leading to a reduction in the unskilled wage and an increased dispersion of income. But the same forces would be expected to increase production of labor-intensive goods in the exporting countries, and that in turn under similar conditions should increase the relative wages of unskilled workers and thus reduce income dispersion in those countries. This does not seem to have happened. Wages of unskilled manufacturing workers in developing countries with rapidly growing exports do indeed seem to have risen, and poverty has declined, but wages of skilled workers seem to have risen even more, contrary to expectation within the H-O framework. Chile, Colombia, Mexico, Turkey, and Venezuela, among others, have experienced increased wage dispersion based on education (Wood, 1994; World Bank, 2001).

The computation of top income share usually relies on historic tax records. Published tax records tabulate information for several income brackets, and for each income bracket report the number of taxpayers, their total income and tax liability. The researchers combine this information with the information on a country's total population, total personal income, some assumptions on taxpayer filing behaviour and the underlying shape of income distribution to compute the top 1 per cent inequality measure (see Atkinson et al., 2011 for details).

The Stolper–Samuelson mechanism suggests that increased relative demand for skilled labour in countries abundant in skilled labour occurs as a result of shifts in the relative demand for skilled labour across industries. Labour-intensive industries using skilled labour expand and those using unskilled labour contract, with all industries employing an increasing share of less-skilled labour. However, the employment shifts across industries have not been sufficiently large to account for the large increase in wage inequality. Most of the observed increase in demand for educated labour in countries such as the United States is driven by increased relative demand for skilled labour within industries. For example, the wage and employment share of skilled workers increased in virtually all industries during the 1980s and 1990s in the United States, including the non-traded sectors (Lawrence and Slaughter, 1993; Autor and Katz, 1999), which is at odds with the Hecksher–Ohlin mechanism. Berman et al. (1998) find evidence for a within-industry shift in the relative demand for skilled workers for several OECD countries. In addition, studies have documented that, contrary to the predictions of the simple Hecksher–Ohlin model, many developing countries that liberalized their trade during the 1980s and 1990s also observed an increase, rather than a decrease, in wage inequality between education groups (Robbins, 1996; Harrison and Hanson, 1999; Wood, 1999; Goldberg and Pavcnik, 2007). 10 Some developing countries such as Colombia and Mexico tended to protect industries employing unskilled labour intensively, so tariff-induced price declines would be expected to be largest in those sectors. As a result, the observed increase in wage inequality was in principle consistent with the Stolper–Samuelson mechanism (Hanson and Harrison, 1999; Goldberg and Pavcnik, 2007). However, as in the developed economies, the increased relative demand for skilled labour in many developing countries was predominantly driven by increase in the relative demand for skilled labour within industries rather than across industries. The wage-bill share or employment share of skilled workers increased in most traded and non-traded industries during this period in the countries studied (Goldberg and Pavcnik, 2007). Krugman (2008) has recently suggested that international trade accounts for a larger share of the growth in wage inequality in the United States in the 1990s and 2000s because of the rapid increase in the share of imports coming from low-wage countries such as China and India during this period. This view is not shared by researchers such as Irwin (2008) and Katz (2008), who use the evidence above as well as evidence on the polarization of the US labour force from Autor et al. (2008) and Autor (2010) to counteract Krugman's argument in their comments to Krugman (2008). Michaels et al. (2010) examine whether information and communication technologies (ICT) can account for this polarization of labour markets in many Organisation for Economic Co-operation and Development (OECD) countries, where the demand for middle-skilled workers is declining relative to the demand for highand low-skilled workers. Using data from 1980 to 2004, Michaels et al. (2010) find evidence that industries that increase their use of ICT observe greater increases in demand for high-skilled workers and a greater relative fall in demand for workers with a middle level of skills. Interestingly, trade (as measured by imports and exports as a share of total industry output) also plays a role, but the effect of trade is not robust to controls for differences in research and development (R&D) intensity across industries. The study concludes that ICT can account for a quarter of the increase in the relative demand for college-educated workers between 1980 and 2004 in these countries.

IV. Methodology

The methodology deals with model specification data requirement, data source and variables that we use in our model. This chapter explains the various tools and techniques for determining the Trade and income distribution. We are attempting to explain the Trade and income Distribution in Pakistan. We want to explore the relationship between income distribution and factors that influence it.

a) *Problem Statement*

Our analysis is concern with the Trade and income distribution in Pakistan. The Trade and Income Distribution have been analyses in single model. The research question of our study is to see the factors which are irresponsible for Inequality or unfair income distribution .The empirical analyses will support in depth finding.

b) *Data*

Data used in this study is secondary data which is taken from Pakistan Economic Survey and World Bank.

i. *Model Selection*

The main aim of the model is to explore the effect of alternative trade structure on the income accruing to different group. We use Ols to estimate the variables.

In statistics, ordinary least squares (OLS) or linear least squares is a method for estimating the unknown parameters in a linear regression model, with the goal of minimizing the differences between the observed responses in some arbitrary dataset and the responses predicted by the linear approximation of the data (visually this is seen as the sum of the vertical distances between each data point in the set and the corresponding point on the regression line - the smaller the differences, the better the model fits the data). The resulting estimator can be expressed by a simple formula, especially in the case of a single regressor on the right-hand side.

ii. *Economic Model*

Gini=f (TO, GDP, EL, POP, FED, REMIT)

iii. *Statistical analysis*

In addition to descriptive analysis OLS regression model using Eviews software is use to explore the informal economy of Pakistan.

iv. *Econometric Model*

$$Gini = Bo + B1\,(TO) + B2\,(GDP) + B3\,(FDI) - B4\,(POP) + B5\,(REMIT) + U$$

c) *Variable with economic definition*

i. *Gini Coefficient*

Gini(1912 and 1909)The Gini coefficient (also known as the Gini index or Gini ratio) (/dʒini/ jee-nee) is a measure of statistical dispersion intended to represent the income distribution of a nation's residents, and is the most commonly used measure of inequality. It was developed by the Italian statistician and sociologist CorradoGini and published in his 1912 paper "Variability and Mutability" (Italian: Variabilità e mutabilità). The Gini coefficient measures the inequality among values of a frequency distribution (for example, levels of income). A Gini coefficient of zero expresses perfect equality, where all values are the same (for example, where everyone has the same income). A Gini coefficient of one (or 100%) expresses maximal inequality among values (for example, where only one person has all the income or consumption, and all others have none). (Wikipidia) However, a value greater than one may occur if some persons represent negative contribution to the total (for example, having negative income or wealth). For larger groups, values close to or above 1 are very unlikely in practice.

ii. *Trade openness*

The trade-to-GDP ratio is frequently used to measure the importance of international transactions relative to domestic transactions. This indicator is calculated for each country as the simple average (i.e. the mean) of total trade (i.e. the sum of exports and imports of goods and services) relative to GDP. The Openness Index is an economic metric calculated as the ratio of country's total trade, the sum of exports plus imports, to the country's gross domestic product. The interpretation of the Openness Index is the higher the index the larger the influence of trade on domestic activities.

Table 1 : Variable table with economic definition and data source

Dependent variable	Economic definition of variables	Data source
Gini	Gini coefficient	Economic survey of Pakistan
Independent variable		
FDI (Foreign direct investment)	Foreign direct investment as % of GDP	FBS (Federal Bureau of statistics)
GDP (gross domestic product)	Gross domestic product(million RS)	Economic survey of Pakistan
EL(Education level)	Education level(literacy rate) continuous variable	FBS(Federal Bureau of statistics)
POP (population)	Population (million)	Economic survey of Pakistan
REMIT (remittances)	Remittances (million RS)	World bank
TOPN (Trade openness)	Trade openness (EXP+IMP)/GDP	Economic survey of Pakistan

V. Result and Discussion

In this chapter researcher make analysis using appropriate statistical and econometrics techniques. Along with econometric analysis descriptive and inferential analysis also added in this chapter. The estimates of the model discussed in this chapter. For the purpose researcher have tabulated and classified the data to get the objective of study. First section of this chapter comprise with such work. In second section researcher discuss relationship among dependent and independent variables.

Table 2 : Result

Dependent Variable: GINI
Method: Least Squares
Date: 05/13/15 Time: 12:35
Sample: 1980 2010
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	-2.36E-08	6.95E-09	-3.39797*	0.0023
FDI	-1.09E-05	4.74E-06	-2.29792**	0.0302
POPL	0.001708	0.000391	4.37073*	0.0002
REMIT	-3.53E-07	9.74E-08	-3.6256*	0.0013
TOPN	-0.032189	0.112472	-2.1861**	0.0571
C	0.538455	0.046737	11.52098	0.0000

R-squared	0.796169	Mean dependent var	0.359032
Adjusted R-squared	0.755403	S.D. dependent var	0.034093
S.E. of regression	0.016862	Akaike info criterion	-5.155577
Sum squared resid	0.007108	Schwarz criterion	-4.878032
Log likelihood	85.91145	Hannan-Quinn criter.	-5.065104
F-statistic	19.53011	Durbin-Watson stat	1.773897
Prob(F-statistic)	0.000000		

*Note *,** indicate the level of significance at 1% and 5% respectively*

a) *Trade and Income inequality*

There is negative relationship between trade and income inequality and this relationship is statistically significant, when trade increase than income inequality reduced because trade increase income of poor person in this sense when trade increase than competition increase and goods and services available at lower price and income of poor person increase.

Trade openness effect directly or indirectly through its impacts on economic growth should make income distribution more equal and thereby reduce poverty in developing countries. Resources are utilized in better way by allowing the imports of goods and services at lower costs than it could be produced domestically. It also enables the developing countries like Pakistan to import capital equipment and intermediate inputs which would be costly to produce domestically and also critical role to improve economic growth performance and in poverty alleviation. It also promotes environment of competition and give a chance to local firms to grow and perform efficiently. Local firms get greater access new ideas and technologies of international exposure. Furthermore, country's production possibilities and consumption opportunities become limited without trade. Trade and free flow of capital can extend these possibilities which lead to growth and development. In fact, trade and penetration of capital bring dynamic forces in the economy that enhances efficiency and competition. Thus, international trade has great potential to invent profitable areas of investment in economy which also attract investment from abroad. (Hussain, 2009)

The foreign markets have not impressive distributional influence on the income inequality in Pakistan. Investments inflows have inverse influence on income inequalities in Pakistan but due to political instability and inconsistent economic policies, FDI was not allowed to rise considerably. (Munir, 2001)

Trade leads to more (less) inequality in land-abundant capital-abundant. Countries; and second, that capital mobility reverses the effects of trade on inequality in the long run. Thus, it seems that free trade should encounter opposition in land-abundant countries if it is not accompanied by a liberalization of capital flows. (Fisher, 2001)

b) Foreign direct Investment and Income inequality

There is negative relationship between FDI and income inequality and this relationship is statistically significant. Its significant effect implies that inflow and outflow of foreign direct investment can make the distribution of income fairer.

c) Worker Remittances and income inequality

Remittances and income inequality is negatively related and their relationship is statistically significant. . Its significant effect implies that inflow of remittances can make the distribution of income fairer.

d) GDP and income inequality

GDP and income inequality is negatively related and this relationship is statistically significant. When GDP increase than income inequality reduced and income distribution become fairer.

e) Population and income inequality

Population and income inequality is positively related and their relationship is statistically significant. When population increase than income distribution become unfair.

VI. Conclusion

This research has discussed the impact of trade flows on within country income inequality in Pakistan. The model and estimation we presented above allows us to analyze the Trade and Income distribution. To test how different parameters have affect income distribution, we estimated OLS model. The conclusion of the study is summarized as below.

- Trade openness and Gini is negatively related.
- FDI and Gini is negatively related.
- Remittances and Gini is negatively related.
- Population and Gini is positively related.
- GDP and Gini is negatively related.

Non-tradable activities rare leading in generating factor income for the poor only when direct effects are considered. Within the category of tradable activities the income effect tends to be largest in primary sector activities. In particularly export oriented agriculture creates substantially more income for poor people. Developing countries which are comparatively well endowed with mineral resources and land (or climate) tend to be less egalitarian than others, although the effect of the agricultural comparative advantage may be offset by the distribution of land. On the other hand, trade protection has also been shown to be a major determinant of income distribution.

VII. Recommendation

In this framework, the domestic level of economic and human development plays important role in shaping the direction and the impact of globalization over income distribution in Pakistan. For instance, the role of the physical and human capital is important in minimizing the adverse distributional effects of increasing trade with the more industrialized countries. Conversely, bottlenecks in the supply of highly educated and skilled labor may condemn a developing country to the economic marginalization and to the high levels of domestic income inequality. This means that there is need for active social intervention, such as targeted and high-quality education and training policies addressed to increasing the supply of skilled labor. At the same time, the construction of a welfare system able to create safety nets and insurance schemes for the possible victims of the globalization process would also be advisable. In this context, national policies within Pakistan might be severely constrained as far as domestic public budgets are concerned, while international organizations might instead play a pivotal role (see, for instance, ILO, 2004).

References Références Referencias

1. Aradhyula, S., Rahman, T., & Seenivasan, K. (2007, July). Impact of international trade on income and income inequality. In American Agricultural Economics Association Annual Meeting, Portland July 29-August (Vol. 1, p. 2007).
2. Bouruignon F. and K. Morrisson. Income Distribution, Development and Foreign Trade. *European Economic Review* 34(1990)1113-1132 North Holland.
3. Chaudhry, Imran Sharif. (2013). Does Trade Liberalization reduce Poverty and Inequality? Empirical Evidence from Pakistan. Pakistan Journal of Commerce and Social Sciences, Vol. 7 (3), 569-587.
4. Chaudhry, S. I., & Hussain, S. Mahmood-ul-Hasan (2009), "Globalization and Income Distribution: Evidence from Pakistan". *European Journal of Social Sciences*, *8*(4), 683-691.

5. Cornia, G. A. (2003). The Impact of Liberalization and Globalization on Income Inequality in Developing and Transitional Economies. *Working Papers, Centre for Household, Income, Labor and Demographic Economics.*
6. Dollar, D., & Kraay, A. (2002). Growth is Good for the Poor. *Journal of economic growth*, *7*(3), 195-225.
7. Fischer, Ronald D. (2001). The evolution of inequality after trade liberalization Journal of Development Economics Vol. 66. 555–579.
8. Falki, Nuzhat.(2009). Impact of Foreign Direct Investment on Economic Growth in Pakistan. *International Review of Business Research Papers.Vol. 5. (5) Pp. 110-120*.
9. Gini, C. (1912). "Italian: Variabilità e mutabilità" 'Variability and Mutability', C. Cuppini, Bologna, 156 pages. Reprinted in Memorie di metodologica statistica (Ed. Pizetti E, Salvemini, T). Rome: Libreria Eredi Virgilio Veschi (1955).
10. Jackobsson(2006) Trade Openness and Income Inequality *School of Economics and Management.*
11. Kahai, S. K., & Simmons, W. (2005). The impact of globalization on income inequality. *Global Business and Economics Review*, 7(1), pp. 1-15.
12. Khan, Rana Ejaz Ali and Sattar, Rashid. (2010). Trade Growth and Poverty: A Case of Pakistan. Pak. J. Commer. Soc. Sci. Vol. 4 (2), 173-184
13. Munir, Sehar. Kausar Kiani, Adiqa. Khan, Azra and Jamal, Ahsan. (2013). The Relationship between Trade Openness and Income Inequalities Empirical Evidences from Pakistan. (1972-2008). Academic Journal of Management Sciences, Vol. 2(1). ISSN 2305- 2864.
14. MESCHI, ELENA. (2009). Trade and Income Inequality in Developing Countries. World Development Vol. 37(2), pp. 287–302, doi:10.1016/j.
15. Paulino, Amelia Santos and A. P. Thirlwall. (2004). THE IMPACT OF TRADE LIBERALISATION ON EXPORTS, IMPORTS AND THE BALANCE OF PAYMENTS OF DEVELOPING COUNTRIES. The Economic Journal, 114.
16. Meschi, E., Vivarelli, M. (2009). Trade and income inequality in developing countries. *World Development*, 37 (2), pp. 287-302.
17. Mah, J. S. (2002). The impact of globalization on income distribution: the Korean experience. *Applied Economics Letters*, *9*(15), pp.1007-1009.
18. Siddiqui, R., & Iqbal, Z. (2001). *Tariff Reduction and Functional Income Distribution in Pakistan: A CGE Model*. Pakistan institute of development economics (PIDE).
19. Spilimbergo, A., Londono, Juan L. and Szekely, M. (1999), "Income distribution, factor endowments, and trade openness," *Journal of Development Economics, Elsevier*, 59(1), pp. 77-101.
20. Savvides A. (1998) trade policy and income inequality: New evidence. *Economics Letters*, 61 (3), pp. 365-372.
21. Spilimbergo, Antonio. Londono, Juan Luis and Szekely, Miguel. (2012). Income distribution, factor endowments, and trade openness. Journal of Development Economics Vol. 59.
22. QADIR, USMAN. KEMAL, MUHAMMAD ALI, and MOHSIN, HASAN MOHAMMAD. (2000). Impact of Trade Reforms on Poverty. *The Pakistan Development Review.* 4 Part II. pp. 1127–1137.
23. William R. Cline, (1999) Trade and Income Distribution. *Paterson institute for international economics*. Paul R. Krugman International Economics (theory and policy) Edition 9th Chapter no. 05.

This page is intentionally left blank

Global Journal of Management and Business Research: B
Economics and Commerce
Volume 15 Issue 8 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Etude Des Facteurs Affectant L'utilisation Des Technologies Internet Dans Les PME: Cas Du Secteur Manufacturier Tunisien

By Ilhem Hammami & Mustapha Zghal
Science Faculty of Economics and Management, Tunisia

Abstract- This research emphasizes, in a clearer and more differentiating way, the motives or the incentives of the use of the Internet Technologies (IT) by the managers of SME. It is to this problem of the use of the IT in the companies that this communication contributes, via two studies carried out with the managers of the SME Tunisians situated in the regions of big Tunis and Sahel, a quantitative and qualitative study.The results obtained from a qualitative study show globally that the use of the IT within the Tunisian SME is determined by the entrepreneurial and environmental factors.The obtained results, for the method of the structural equations, validate the proposed model by highlighting the entrepreneurial and environmental factors.

Keywords: SME, internet technologies, entrepreneurial factors, environmentalfactors.

GJMBR - B Classification : JEL Code: N60, O10

ETUDEDESFACTEURSAFFECTANTLUTILISATIONDESTECHNOLOGIESINTERNETDANSLESPMECASDUSECTEURMANUFACTURIERTUNISIEN

Etude Des Facteurs Affectant L'utilisation Des Technologies Internet Dans Les PME: Cas Du Secteur Manufacturier Tunisien

Ilhem Hammami [α] & Mustapha Zghal [σ]

Résumé- Cette recherche met l'accent, de façon plus claire et nuancée, sur les motifs ou les incitations de l'utilisation des Technologies Internet (TI) par les dirigeants de PME. C'est à cette problématique de l'usage des TI dans les entreprises que cette communication contribue, via deux étudesréalisées auprès des dirigeants des PME Tunisiennessituées dans les régions du grand Tunis et du Sahel, une étude qualitative et une autre quantitative. Les résultats obtenus à partir d'uneétude qualitative montrent globalement que l'utilisation des TI au sein de la PME Tunisienne est déterminée par les facteurs entrepreneuriaux et les facteurs liés à l'environnement. Les résultats obtenus, moyennant la méthode des équations structurelles, valident le modèle proposé en mettant en exergue les facteurs entrepreneuriaux et les facteurs liés à l'environnement de l'entreprise.

Mots clés: PME, technologies internet, facteurs entrepreneuriaux, facteurs liés à l'environnement.

Abstract- This research emphasizes, in a clearer and more differentiating way, the motives or the incentives of the use of the Internet Technologies (IT) by the managers of SME. It is to this problem of the use of the IT in the companies that this communication contributes, via two studies carried out with the managers of the SME Tunisians situated in the regions of big Tunis and Sahel, a quantitative and qualitative study.The results obtained from a qualitative study show globally that the use of the IT within the Tunisian SME is determined by the entrepreneurial and environmental factors.The obtained results, for the method of the structural equations, validate the proposed model by highlighting the entrepreneurial and environmental factors.

Keywords: SME, internet technologies, entrepreneurial factors, environmentalfactors.

I. Introduction

La diffusion des Technologies Internet (TI) au sein des pays peut constituer un levier efficace du développement économique et social. Les TI permettent de diffuser des connaissances et savoirs et d'accroître les performances macro-économiques des nations et les performances micro-économiques des entreprises par l'augmentation de la productivité. L'utilisation des technologies Internet se développe dans les entreprises pour assurer des tâches de plus en plus nombreuses telles que la communication, la recherche d'informations, la commercialisation des produits et services, le travail en groupe, la gestion de l'entreprise, la prospection, etc. Cette utilisation dépend d'une entreprise à une autre selon plusieurs facteurs.

La présente étudevise à présenter les facteurs qui déterminent l'utilisation des principales applications de l'Internet (qui sont selon Monod E., 2003: l'Intranet, l'Extranet, le commerce électronique, la veille sur Internet et le site web) dans l'entreprise. Donc, nous allons mis en relief les facteurs qui agissent sur le comportement de la PME envers l'utilisation des applications Internetet qui sont: les facteurs entrepreneuriaux, les facteurs liés à l'environnement, les facteurs technologiques et les facteurs organisationnels.

Nous présentons d'abordun cadre théorique permettant de présenter un aperçu relatif au concept de l'utilisation des technologies Internet et ses facteurs qui l'influencent, ainsi que les relations existantes entre eux, puis le dispositif d'enquête qualitative réalisée auprès des dirigeants des PME tunisiennes pour identifier ces facteurs. Par la suite, une étude quantitative confirmatoire réalisée afin de valider un modèle causal intégrant l'utilisation les technologies Internet ainsi que ses facteurs qui l'expliquent.

II. Le Cadre Conceptuel

L'utilisation des applications Internet se développe dans les entreprises pour assurer des tâches de plus en plus nombreuses telles que la communication, la recherche d'informations, la commercialisation des produits et services, le travail en groupe, la gestion de l'entreprise, la prospection, etc. Cette utilisation dépend d'une entreprise à une autre selon plusieurs facteurs.

a) Les facteurs entrepreneuriaux

Une des principales spécificités des PME est le pouvoir centralisateur du dirigeant qui joue un rôle central dans l'entreprise. Dans les PME, presque toutes les décisions sont prises en présence du dirigeant et cela va de même concernant l'adoption de nouvelles technologies. A cet effet, Kalika (2006) considère que les décisions prises par le dirigeant sont étroitement liées à la façon selon laquelle le gestionnaire va administrer les TI.

Le rôle du dirigeant est un des facteurs de succès dans une PME de taille réduite que dans les

Author α: Faculté des Science Economiques et de Gestion de Tunis Laboratoire ERMA. e-mail: elhemhammami@yahoo.fr

Author σ: Professeur émérite, Faculté des Science Economiques et de Gestion de Tunis. e-mail: Mustapha.zghal@gnet.tn

grandes entreprises. De plus, le dirigeant de l'entreprise joue un rôle important dans la création des compétences nécessaires à l'innovation technologique. A cet effet, l'utilisation des TI n'implique pas seulement les ressources matérielles de la PME, mais aussi le développement de la connaissance des utilisateurs. Donc, un processus d'apprentissage de ces technologies est nécessaire.

Aldebert B. et Gueguen G. (2009) ont montré que la petite entreprise est souvent liée à l'histoire, à l'expérience et au profil psychologique de son dirigeant. Elle est destinée à permettre la satisfaction des objectifs du dirigeant (Saporta, 1997). Face à l'importance du dirigeant dans les prises de décisions stratégiques, une question se pose sur son rôle dans l'appropriation et les pratiques en matière de TI de son entreprise.

Le dirigeant de PME est considéré comme le facteur essentiel dans le processus d'introduction des TI de l'entreprise. Certaines études menées par des chercheurs tels que Raymond et al., 1998; Limayem et Chabdoub, 1999, se sont concentrées sur les critères conditionnant les choix en matière de TI par le dirigeant de PME. Ainsi, pour Monnoyer-Longé (2002), le dirigeant est envisagé comme initiateur d'une démarche proactive lors de l'introduction des TI dans son entreprise.

Dans le même contexte, plusieurs auteurs tels que Raymond et al, 1998; Limayem et Chabdoub, 1999; Monnoyer, 2002; considèrent que la prépondérance du dirigeant constatée au niveau des choix TI apparaît également au niveau de l'utilisation. Notre recherche s'inscrit donc dans un volet de recherches qui mettent en exergue le dirigeant dans les choix en matière de TI en permettant un prolongement sur l'usage.

Selon Uwizeyemungu S. et Raymond L. (2004), la PME sera plus disposée à adopter les TI lorsque son dirigeant se caractérise par un style de leadership transformationnel, une perception positive à l'égard de ces technologies, une orientation stratégique proactive, un style décisionnel autocratique (centralisation), une capacité d'innovation et une faible aversion au risque.

De plus, notre revue de la littérature permet d'insister sur l'importance de l'attitude du dirigeant de l'entreprise dans les choix opérés en matière de technologies de l'information.« Si l'influence de l'attitude et du profil du dirigeant sur l'orientation stratégique de la PME et son mode d'organisation est reconnue, cette influence s'exercera également sur le mode d'intégration et d'appropriation des TI »Aldebert B. et Gueguen G. (2009).

Julien (1995) considère que l'acquisition des TI est un acte entrepreneurial et ce processus représente les croyances, les habiletés, les attitudes, les aptitudes du dirigeant. Par ailleurs, un grand nombre de chercheurs affirment que cette influence d'ordre social est un puissant déterminant du comportement d'acquisition et d'utilisation des TI. Ces chercheurs considèrent que ce que pensent les individus de l'utilisation des TI est affecté par leur perception d'approbation ou de désapprobation despersonnes significatives présentes dans leur entourage (Chang et Cheung, 2001; Venkatesh et Davis, 2000). De plus, ces chercheurs stipulent que l'affect, les facteurs sociaux, les conditions ''facilitantes'' et la perception des effets à court terme influencent positivement l'intention d'utiliser l'internet dans la mesure où l'individu perçoit qu'il dispose de ressources et de soutien suffisants.

Riemenschneider et Mykytyn (2000) considèrent que l'expérience professionnelle de dirigeant est un facteur inhibiteur de l'utilisation des TI. De plus, Raymond et al. (2005) suggèrent que l'expérience professionnelle sensibilise le dirigeant à l'importance de l'utilisation des TI dans la mesure où celle-ci peut favoriser la gestion de l'information et de l'incertitude dans le contexte des affaires internationales.

Raymond et St-Pierre (2005) mentionnent que l'expérience du dirigeant de la PME influence positivement l'adoption d'un système de production technologique «sophistiqué». Si ses caractéristiques (niveau de formation, expérience, âge, etc.) sont importantes, sa perception dans les choix TI de la PME est également déterminante (Raymond, 2001).

Riemenschneider et Mykytyn (2000) considèrent que la formation de dirigeant est un facteur inhibiteur de l'utilisation des TI. De plus, Raymond et al. (2005), Raymond et St-Pierre (2005) suggèrent que le degré d'éducation sensibilise le dirigeant à l'importance de l'utilisation des TI dans la mesure où celle-ci peut favoriser la gestion de l'information et de l'incertitude dans le contexte des affaires internationales.

Boutary et Monnoyer (2003) ont identifié quatre types de comportements, concernant les dirigeants qui ont un intérêt pour les TI, selon le degré de proactivité (modeste ou élevé) des dirigeants et leur attitude vis-à-vis des technologies (initiateur ou suiveur).

Un grand nombre de chercheurs démontre que l'intérêt du dirigeant pour les TI affecte les pratiques de la PME et la performance qui en résulte. Dans leur recherche sur la relation entre l'intérêt du dirigeant envers les TI et la performance de l'entreprise, Aldebert B. et Gueguen G. (2009) stipule que cet intérêt se limite à un rôle d'initiateur (utilisation des TI). En effet, le dirigeant qui a un intérêt pour les TI et qu'il en retire de la satisfaction, va investir dans ces technologies et inciter tous les employés à les utiliser. Donc, le dirigeant sera envisagé comme un initiateur des pratiques TI (Aldebert B. et Gueguen G., 2009).

Aldebert B. et Gueguen G. (2009) supposent que plus les dirigeants sont intéressés par les TIC, plus le degré d'utilisation de différents outils informationnels au sein de leurs entreprises est important et plus le personnel est mobilisé quant à leur utilisation. L'intérêt du dirigeant aura un effet « initiateur » sur les outils informationnels utilisés et une plus grande utilisation entraînera une meilleure performance. Aussi, l'intérêt du dirigeant aura un effet «modérateur» et il amplifie l'utilisation des outils informationnels afin d'obtenir une meilleure performance. Donc, ces auteurs insistent sur la présence d'une relation positive entre l'utilisation des outils informationnels et la performance des PME et cette relation sera plus importante si l'intérêt du dirigeant pour les TIC est supérieur.

St-Pierre J. et al. (2006) considèrent que les objectifs du dirigeant déterminent l'utilisation des applications Internet (réseau de communication externe) au sein de la PME. Ils considèrent que plus le dirigeant est orienté vers l'international, plus il est sensible aux technologies susceptibles de l'aider à atteindre ses objectifs de développement et ce, à des coûts relativement faible.

b) Les Facteurs Organisationnels

L'utilisation des applications Internet se développe dans les entreprises pour assurer des tâches de plus en plus nombreuses telles que la recherche d'informations, le travail en groupe, la communication, la commercialisation des produits et services, la prospection, etc. Cette utilisation dépend d'une entreprise à une autre selon plusieurs facteurs.

Uwizeyemungu S. et Raymond L. (2004) stipulent qu'une PME ayant des processus très spécifiques, des structures et des processus flexibles et qui se trouve dans une situation de rareté de ressources financières et humaines, serait moins disposée à utiliser les TI. Par contre, la PME qui a un plus grand degré de formalisation seraitplus disposée à utiliser les TI.

On peut constater alors que les équipements en TI ainsi que l'usage qui en est fait diffèrent d'une entreprise à une autre selon de nombreux critères tels que la taille, le secteur d'activité, la dispersion, etc.

Concernant la taille de l'entreprise, certains auteurs supposent que plus l'organisation est grande, plus elle aura plus de ressources pour faciliter l'initiation, l'adoption et l'implantation des technologies (Grover et Goslar, 1993, cité dans Uwizeyemungu S. et Raymond L., 2004).

Le processus d'adoption des TI dépend des caractéristiques de l'entreprise telle que la taille, et les entreprises les plus grandes adoptent les TI plus tôt que les plus petites.

Un autre facteur, qui traduit un besoin de communication intra ou extra-organisationnel, a aussi contribué à accélérer le processus de l'adoption et de l'utilisation de l'Internet. Ce facteur est l'appartenance de l'entreprise à un groupe (la dispersion). En effet, près de la moitié des entreprises multi sites ont adopté Internet depuis plus de cinq ans (dont 12,5% depuis plus de 10 ans) contre seulement 38% des entreprises mono site qui sont connectées depuis plus de 5 ans (dont moins de 6% depuis plus de 10 ans). De même, 48, 1% des entreprises appartenant à un groupe sont connectées depuis plus de 5 ans (dont 11,7% depuis plus de 10 ans), contre 39,3% pour les entreprises qui n'appartiennent pas à un groupe (dont 6,5% depuis plus de 10 ans) (Lethiais V. et Smati W., 2008).

c) Les facteurs technologiques

Cragg et King, 1993; Thompson S.H et al., 1998 considèrent que les bénéfices perçus(ou les avantages relatifs)lors de l'utilisation des applications Internet sont un facteur déterminant de l'adoption des TI par les PME. En d'autre terme, lorsque le dirigeant ne perçoit pas ces bénéfices, celui-ci a tendance à ne pas l'utiliser (Iacovou et al., 1995). Quant aux Harisson et al., (1997), ils insistent sur la subjectivité de l'intérêt du dirigeant et ils considèrent que la perception apparaît plus importante que le calcul rationnel.Thompson S.H et al. (1998) considèrent que la compatibilité est un déterminant de la décision de l'utilisation de la technologie Internet au sein de la PME.

d) Les facteurs liés à l'environnement

Uwizeyemungu S. et Raymond L., (2004) considèrent que la sensibilité du marché au prix, la forte croissance et le dynamisme du secteur d'activité, l'ouverture aux technologies d'information de l'entourage relationnel immédiat du propriétaire-dirigeant et l'existence de liens logistiques étroits entre la PME et ses partenaires d'affaires, ce sont des facteurs qui poussent le dirigeant à utiliser les TI.

Une entreprise sera davantage incitée à utiliser les TI, pour renforcer ses performances dans un environnement concurrentiel que dans un environnement protégé. De ce fait, le niveau de concurrence influence les décisions des dirigeants de mettre en œuvre des TI. Par exemple, beaucoup d'entreprises ne pratiquent pas le commerce électronique car leurs produits ne sont pas jugés adaptés au commerce électronique ou parce que le marché est jugé trop étroit. Dans d'autres cas, « le commerce électronique apparaît comme faisant concurrence aux modèles d'entreprises existants »OCDE (2003).

III. L'étude Qualitative

a) Description de l'étude qualitative

Le modèle de recherche est élaboré en se basant sur les travaux théoriques antérieurs. Ainsi, la sélection définitive des facteurs, qui sont intégrés dans le modèle, était à la suite d'une étude qualitative.

Dans le cadre de notre travail, l'objectif de l'étude exploratoire qualitative est de collecter les éléments qui antécédent l'utilisation des applications Internet au sein de la PME. Nous avons donc choisi dans le cadre de l'étude qualitative, de réaliser des entretiens individuels semi directifs avec les dirigeants des PME Tunisiennes,

Global Journal of Management and Business Research (B) Volume XV Issue VIII Version I Year 2015

pour s'attacher directement à leurs discours et ce dans le but de déterminer les différents facteurs qui antécédent l'utilisation desapplications Internet au sein des PME.

b) Matériels et méthodes

Dans le cadre de l'étude qualitative portant sur la détermination des facteurs influençant l'utilisation des TI dans l'entreprise, huit entretiens semi-directifs d'une durée approximative de quarante-cinq minutes ont été organisée au sein de l'entreprise. La taille de l'échantillon est basée sur le principe de la saturation sémantique. Le matériau qualitatif fut par la suite enregistré et puis retranscrit à des fins d'analyse.Notons que la collecte des données qualitatives a pris un laps de temps d'à peu près deux mois entre Janvier et Février 2013.

En se basant sur la littérature et sur la problématique d'étude, un guide d'entretien (voir annexe 1) fut alors élaboré en respectant les règles requises (Giannelloni et Vernette, 2001). Celui-ci s'articule autour des axes reflétant la problématique de l'étude. Globalement, un seul thèmeprincipal aété traité qui provient de la littérature et une discussion avec les dirigeants des entreprises. De plus, nous avons recouru au critère de saturation sémantique qui consiste, selon Glaser et Strauss (1967), à arrêter les entretiens à partir du moment où que les informations recueillies ne sont plus nouvelles (Mucchielli, 1991). Nous avons veillé par ailleurs à respecter la neutralité et l'objectivité dans l'analyse des discours des dirigeants. Ces derniers ont fait par la suite l'objet d'une analyse de contenu thématique après avoir été intégralement et fidèlement retranscrits et enregistré.

Pour constituer l'échantillon, nous nous sommes adressés à la base des listes des entreprises exportatrices établies par le Centre de Promotion des Exportations (CEPEX).La majorité des entreprises échantillonnées sont de taille moyenne (entre 50 et 250 employés) et qui appartiennent aux industries textile, pharmaceutique et plastique.

c) Résultats de l'étude qualitative

L'étude qualitative a pu nous dégager un ensemble d'éléments que nous avons les catégorisé grâce à une analyse de contenu. Le regroupement de ces éléments, ayant un lien entre eux, a permis de déduire quatre unités thématiques qui sont: intensité de la concurrence, intensité de l'information, intérêt du dirigeant envers lesapplications Internet et son aversion au risque. Quelques exemples de verbatim exprimé par les dirigeants sont présentés dans l'annexe 2. Ces quatre unités thématiques seront à priori les variables du notre modèle que nous comptons de conceptualiser.

IV. Hypothèses De Recherche Et Modèle Conceptuel

En se basant sur une étude qualitative auprès de huit dirigeants des PME tunisiennes et une revue de littérature assez riche, nous pouvons constater que les facteurs entrepreneuriaux tels que l'intérêt du dirigeant envers les technologies Internet (H1a) et son aversion au risque (H1b) exercent une influence significative sur l'utilisation de ces technologies au sein de l'entreprise.

Nous supposons donc que les dirigeants fortement intéressés par les applications Internet feront tendre leurs entreprises vers une utilisation plus importante de ces technologies.

$H1_a$: Les PME dont le dirigeant manifeste un intérêt supérieur pour les applications Internet connaissent une utilisation plus importante de ces technologies.

La deuxième sous-hypothèse (H1b) est formulée en référence à l'étude qualitative réalisée et aux conclusions des travaux de Thompson S.H Teo et al. (1998) et qui s'énonce comme suit:

$H1_b$: Une PME dont le dirigeant a une aversion au risque serait moins disposée à utiliser les applications Internet.

Les facteurs liés au contexte environnemental comme l'intensité concurrentielle (H2a) et l'intensité informationnelle (H2b) exercent un effet significatif sur l'utilisation desapplicationsInternet au sein de la PME, selon plusieurs auteurs tels que Thompson S.H et al., 1998; Uwizeyemungu S. et Raymond L., 2004. D'où, les deux sous hypothèses s'énoncent comme suit:

$H2_a$: Plus l'intensité de la concurrence dans l'industrie est élevée, plus l'entreprise connait une utilisation plus importante des applications Internet.

$H2_b$: Plus l'intensité de la concurrence dans l'industrie est élevée, plus l'entreprise connait une utilisation plus importante des applications Internet.

Le modèle prend en compte deux ensembles indépendants de concepts identifiés dans les fondements théoriques. Il s'agit, d'une part, des facteurs liés au dirigeant tels que l'intérêt qu'il porte surl'utilisation des technologies Internet et son aversion au risque, et d'autre part, des facteurs liés à l'environnement de l'entreprise. Lafigure 1 illustre l'ensemble des variables retenues par cette recherche ainsi que les liens qui les relient.

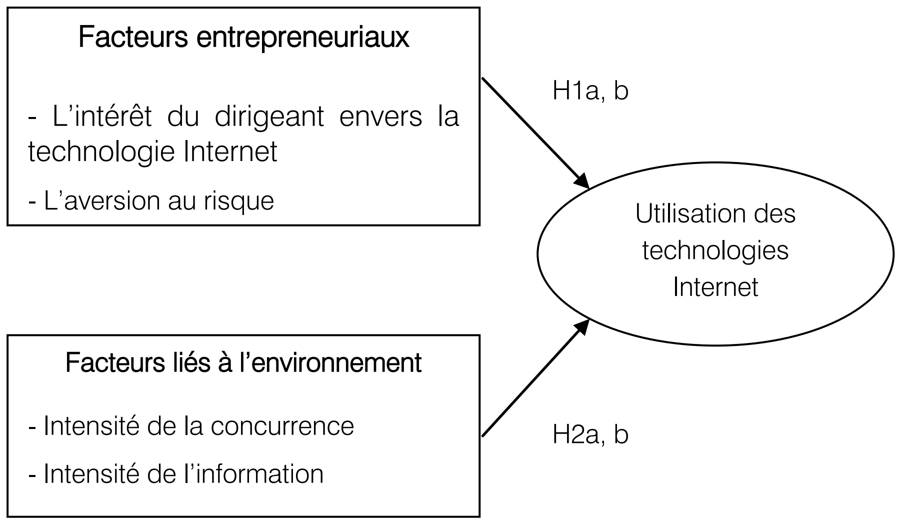


Figure 1 : Modèle conceptuel

Les relations figurées dans le modèle sont celles qui vont être testées par les équations structurelles.Notre modèle sera testé sur un échantillon représentatif des PME tunisiennes exerçant dans le secteur industriel.

V. La Méthodologie De Recherche

Afin de mesurer empiriquement l'effet des facteurs entrepreneuriaux et des facteurs liés à l'environnement sur l'utilisation des applications Internet dansl'entreprise et tester le modèle conceptuel présenté ci-dessus, nous avons choisi l'enquête par questionnaire comme instrument de collecte d'information. Notre démarche empirique s'est déroulée en deux étapes. D'abord le choix des échelles de mesure à retenir, ensuite la réalisation de l'enquête sur le terrain.

Les construits sont mesuré par des échelles issues de la littérature. L'échelle de mesure utilisée est l'échelle de Lickert en 7 points. Pour l'opérationnalisation de l'intérêt du dirigeant envers les Technologies Internet, l'aversion au risque, l'intensité de la concurrence et l'intensité de l'information, nous avons retenu l'échelle de Thompson S.H Teo et al. (1998)(voir annexe 3).

La collecte des données a été effectuée par des questionnaires auprès d'un échantillon de 206 dirigeants des PME manufacturières tunisiennes.Deux cent cinquante entreprises du secteur des industries manufacturières implantées dans la région du sahel ont été sélectionnées. 206 dirigeants ont accepté de répondre au questionnaire c'est à dire un taux de réponse avoisinant les 81.6 %.

VI. Analyse Et Interprétation Des Résultats

Le test de la qualité des échelles s'est effectué par l'ACP et par le calcul de l'alpha de Cronbach. L'analyse factorielle « permet d'analyser la structure factorielle déduite de la revue de la littérature et de purifier les échelles de mesure »(Chaouch N. et Zghal M., 2012).

L'analyse exploratoire de notre recherche nous permet d'identifier les variables latentes et de vérifier la cohérence interne des échelles de mesure. Ainsi, le tableau 2 présente les résultats relatifs à l'analyse en composantes principales et à l'analyse de fiabilité interne des dimensions obtenues.

Tableau 1 : Résultats de l'analyse exploratoire

Items	Composantes après rotation Varimax				Qualité de représentation
	Av risque	IDI	Int. Inf	Int.conc	
Av Risque1	0.82				0.69
Av Risque2	0.87				0.76
Av Risque3	0.83				0.69
Av Risque4	0.90				0.81
Av Risque5	0.79				0.51
Av Risque6	0.78				0.79
IDI1		0.71			0.63

IDI2		0.89			0.61
IDI3		0.88			0.77
IDI4		0.77			0.59
Int. Inf1			0.68		0.52
Int. Inf2			0.71		0.54
Int. Inf3			0.85		0.73
Int.conc1				0.91	0.84
Int.conc2				0.85	0.75
Int.conc3				0.87	0.81
α de Cronbach	0.91	0.83	0.64	0.87	
KMO	0.82	0,78	0.62	0,72	
Variance expliquée	70%	67%	59%	80%	

D'après le tableau 1, la qualité de représentation des items est bonne. Le pourcentage de la variance restituée par l'ACP pour les échelles de mesures des construits est globalement supérieur à 60% justifiant ainsi que les données sont factorisables et que le résultat est satisfaisant. La matrice des composantes après rotation Varimax montre que les items se regroupent sous les variables unidimensionnelles aversion au risque, intérêt du dirigeant envers les TI, intensité de la concurrence et intensité de l'information.

Par ailleurs, les indicateurs de pertinence de l'ACP sont satisfaisants pour les différentes échelles puisque les Alphas de Cronbach sont supérieurs à 0.6. Ainsi, nous pouvons considérer que ces résultats sont satisfaisants au niveau exploratoire.

L'analyse confirmatoire nous permet de vérifier la fiabilité (par le calcul du Rhô de Jöreskog) et la validité pour chaque dimension obtenue. Par ailleurs, la procédure de Fornell et Larcker (1981), a été suivie afin de calculer la validité convergente. Le tableau 3 présente les résultats de notre analyse.

Tableau 2 : vérification de la validité convergente

Dimensions	Fiabilité (Rhô de Jöreskog)	Validité convergente
Intérêt du dirigeant envers les Technologies Internet	0.88	0.58
Aversion au risque	0.95	0.67
Intensité de la concurrence	0.89	0.71
Intensité de l'information	0.67	0.46

Comme le montre le tableau 2, les valeurs du coefficient Rhô de Jöreskog sont satisfaisantes car elles dépassent le seuil minimal recommandé de 0.6 (Bagozzi, cités par Sandvik I.L., KareSandvik, 2003). Par ailleurs, on constate que les conditions de la validité convergente ont respecté le seuil minimal de 0.5 à l'exception de la dimension intensité de l'information avec une valeur égale à 0.46. Toutefois, cette valeur est considérée comme satisfaisante puisqu'elle est très proche du seuil minimal admis dans les travaux empiriques.

Le modèle causal présenté au niveau de l'annexe 4 nous permet de vérifier les hypothèses de recherche et nous renseigne sur l'intensité des liens structurels entre l'utilisation des applications Internet et ses antécédents.

Tableau 3 : L'ajustement du modèle causal

Indice	Chi-deux/ddl	GFI	AGFI	TLI	RMSEA	NFI	CFI
valeur	1.198	0.928	0.900	0.984	0.031	0.930	0.987

Le tableau 3 montre que le modèle causal présente une bonne qualité d'ajustement. En effet, le rapport Chi-deux/ddl présente une valeur satisfaisante au-dessous de 3. Les GFI, AGFI, TLI, NFI et CFI sont supérieurs à 0.9. Finalement, le RMSEA est inférieur au seuil de 0.1. Ainsi, le tableau 4 fait la synthèse des conclusions sur la validité de chacune des hypothèses de recherche.

Tableau 4 : Significativité des liens de causalité et validation des hypothèses

hypothèses	Lien causal		Estimate	Significativité	Validation des hypothèses
H1a	IDI →	Utilisation des applications Internet	0.549	Sig.*	Confirmée
H1b	Aversion au risque →	Utilisation des applications Internet	-0.117	0.077**	Confirmée
H2a	Intensité concurrentielle →	Utilisation des applications Internet	0.034	0.700	Infirmée
H2b	Intensité informationnelle →	Utilisation des applications Internet	-0.089	0.581	Infirmée

Le tableau 4 montre que l'intérêt du dirigeant envers les applications Internet et son aversion au risque exercent des effets directs et significatifs au seuil de 1% sur l'utilisation des applications Internet dans l'entreprise. Ces résultats permettent alors de confirmer les hypothèses H1a et H1b. Par conséquent, nous pouvons conclure que l'utilisation des applications Internet dépend simultanément de ces deux éléments. Par contre, les deux liens structurels rejetés concernent les relations entre l'utilisation des applications Internet, d'une part, et l'intensité concurrentielle et l'intensité informationnelle d'autre part.Cependant, les coefficients de régression estimés pour ces deux relations ont des signes contraires à ceux initialement prévus dans les hypothèses de recherche. Par conséquent, les hypothèses justifiant ces liens structurels (H2a et H2b) doivent être rejetées. Autrement dit, il ressort des données empiriques collectées, que les facteurs environnementaux ont des effets sur l'utilisation des applications Internet inverses à ceux prévus par la théorie dominante de laquelle sont issues nos hypothèses de recherche. De plus, les deux liens structurels sortant de la variable facteurs liés à l'environnement sont peu significatifs et les hypothèses qui les justifient doivent être rejetées.

VII. Discussion Des Résultats Et Conclusion

Nous rappelons que l'objectif principal de cette recherche était de mieux comprendre les facteurs explicatifs de l'utilisation des technologies Internet dans les PME. Plus particulièrement, nous avons tenté d'identifier les variables explicatives qui contribuent à une utilisation plus intense des technologies Internet par les entreprises et qui sont les facteurs entrepreneuriaux, les facteurs liés à l'environnement, les facteurs technologiques et les facteurs organisationnels. Ainsi, nous avons écarté un certain nombre de ces facteurs. Cette restriction du nombre des facteurs est un résultat préliminaire d'une recherche qualitative obtenu lors de l'exploration des données et avant le test des hypothèses de recherche qui étaitréalisée auprès de huit dirigeants des PME tunisiennes.

L'hypothèse concernant le lien structurel entre l'utilisation desapplications Internet et l'intérêt du dirigeant envers ces technologies est significative et de signe correspondant à l'hypothèse initiale. L'effet positif de l'intérêt du dirigeant envers ces technologies (l'Intranet, l'Extranet, la veille concurrentielle, le commerce électronique et le site web) sur leur utilisation au sein de l'entreprise est donc validé et le rôle initiateur du dirigeant est validé par nos investigations empiriques. Ce résultat corrobore les travaux de Julien et Morin (1996), Barney (1996), Beamish et Dhanaraj (2003), Prahalab et Hamel (1990), Laghzaoui (2006), Filion (1991), Allali (2004) et Baile S. et Djambou, R. (2008), et confirme que le degré d'utilisation desapplications Internet est influencé positivement par l'intérêt du dirigeant envers ces technologies. En outre, le signe de la relation de la variable aversion au risque avec l'utilisation desapplications Internet est estimé négatif conformément aux hypothèses de recherche. Cela conduit notamment à valider l'hypothèse sur le lien entre l'utilisation desapplicationsInternet et l'aversion au risque. Ce résultat corrobore les travaux d'Uwizeyemungu S. et Raymond L., 2004; Thompson S.H Teo et al. (1998) et confirme que le degré d'utilisation desapplicationsInternet est influencé négativement par l'aversion au risque du dirigeant.

Quant aux hypothèses concernant les relations entre les facteurs environnementaux, tels que l'intensité de la concurrence et l'intensité de l'information, et l'utilisation des applications Internet dans la PME sont non significatives et ces résultats corroborent les travaux de Julien et Morin (1996), Barney (1996), Beamish et Dhanaraj (2003), Prahalab et Hamel (1990), Laghzaoui (2006), Filion (1991), Allali (2004) et Baile S. et Djambou, R. (2008). Nous n'avons pu démontrer que l'utilisation des applications Internet est soumise à l'influence des variables liés à l'environnement de l'entreprise. Ces résultats nous sont apparus surprenants parce que l'environnement est un facteur clé de l'analyse stratégique (Ansoff, 1987). De plus, ces résultats semblent être en contradiction avec la littérature qui indique que les comportements des PME sont déterminés par leur environnement (Gueguen, 2001). Ces résultats peuvent être justifiés par la fragilité de la PME en termes de ressources ce qui l'oblige dans un premier temps à avoir un comportement de survie en utilisant au mieux ses ressources sans avoir réellement conscience de son environnement (Aldebert B., 2008). Le dirigeant de la PME se concentre avant tout sur l'urgence ainsi que sur son environnement le plus proche, car à ce niveau il pense avoir la plus grande marge de manœuvre et disposer d'un meilleur contrôle de ses actions.

Au final, sur les quatre liens structurels ayant trouvé des arguments significatifs dans les données empiriques, deux ont conduit au rejet de l'hypothèse qui les sous-tend en raison du signe inverse et/ou de la non significativité de la relation prévue. Deux hypothèses ont toutefois trouvé une confirmation aussi bien par rapport au seuil de signification du lien structurel que par rapport au signe de ce lien.

Cette recherche admet certainement des limites. En effet, au niveau théorique, d'autres concepts ou dimensions, qui semblent pertinents dans l'explication du comportement de la PME dans l'utilisation des applications Internet, n'ont pas été pris en compte. En terme méthodologique, les limites de la recherche concernent les choix effectués ou les contraintes pratiques rencontrées lors de la mise en œuvre des tests du modèle conceptuel. Il s'agit notamment de deux limites. La première limite concerne la diversité des secteurs d'activité des PME échantillonnées. En effet, les études réalisées sur des échantillons de PME qui ne sont pas homogènes peuvent cacher des comportements particuliers qui doivent être pris en compte. La deuxième limité concerne la taille de l'entreprise qui a été mesurée avec une seule variable (nombre d'employés). De plus, il s'agit principalement de PME ayant entre environ 10 et 250 salariés. En dehors de ces marges restent les grandes ainsi que les très petites entreprises qui ne sont pas représentées dans l'échantillon et sur lesquelles les résultats de l'étude ne seraient pas automatiquement généralisables.

Des recherches futures peuvent être entreprises pour remédier à ces limites. En effet, les résultats de cette recherche peuvent nourrir les réflexions théoriques futures et stimuler la réalisation de nouvelles recherches sur ce même sujet ou sur des sujets connexes soulevés ici.

En effet, cette recherche a permis de préciser le rôle du dirigeant dans les pratiques et leurs issues en termes de TI. Ainsi, il semble important de mobiliser le personnel dans l'utilisation des outils informationnels en ne se limitant pas uniquement à l'intérêt du dirigeant. De ce fait, il est pertinent de prolonger cette recherche en intégrant l'intérêt du personnel envers les TI et de réaliser d'autres recherches auprès de différents acteurs de chaque PME.

Aussi, il faudrait également étudier plus en profondeur la possibilité d'existence d'autres facteurs organisationnels, entrepreneuriaux, technologiques ou en encore environnementaux qui peuvent influencer le comportement de l'entreprise envers l'utilisation des applications Internet.C'est la mise à l'écart de ces autres possibilités qui engendre les limites théoriques de la recherche. Donc, ces propositions théoriques se sont révélées, assez utiles mais probablement insuffisantes pour modéliser le présent avec une grande précision.

De plus, il faudrait cibler un échantillon de PME appartenant à un seul secteur afin de vérifier l'homogénéité des résultats et utiliser des analyses approfondies d'échantillons stratifiés afin de caractériser les comportements en matière d'utilisation des applications Internet en fonction des orientations stratégiques des dirigeants d'entreprises manufacturières.

References Références Referencias

1. ALDEBERT B. (2008) «Technologie de l'information et de la communication : un outil stratégique pour les petites et moyennes entreprises touristiques ?», Management et Sciences Sociales, vol 5, n°381.
2. ALDEBERT B. ET GUEGUEN G. (2009) «Intérêt du dirigeant de PME touristiques pour les TI: quels effets sur l'utilisation et la performance ?», 14ème colloque de l'AIM.
3. ALLALI, B. (2004) «Quel rôle la vision des dirigeants joue-t-elle dans l'internationalisation de leurs PME? Etude des cas multiples de PME marocaines et canadiennes du secteur agroalimentaire», 7ème CIFEPME, Montpellier, France.
4. ANSOFF H.I. (1987) «The emerging Paradigm of strategic Behavior», Strategic Management Journal, vol 8, pp.501-515.
5. BAILE S. et DJAMBOU R. (2008) «Gouvernance TI et Performance à l'International des PME Gabonaises: Une modèle d'analyse du Succès des TIC basé sur les Ressources», 9ème Congrès CIFEPME, Univ. Catholique de Louvail, 29-31 Octobre 2008.
6. BARNEY J.B. (1996) «The Resource-Based Theory of the Firm», Organization Science, Vol.7, N°5, pp. 469-501.
7. BEAMISH P. et DHANARAJ C.A. (2003) «Resource-Based Approach to the Study of Export Performance», Journal of Small Business Management, Vol. 29, N°3, pp.242-261.

8. CHANG M. K. et CHEUNG W. (2001) «Determinants of the intention to use Internet/WWW at work: a confirmatory study», Information & Management, vol. 39, pp.1-14.
9. CHAOUCH N. et ZGHAL M. (2012) «Contrôle formel vs informel: interaction et effet sur la performance de la relation de coopération», Revue Tunisienne du Marketing, vol 2, n°2&3, 2012.
10. FILION L.J. (1991) «Vision et Relations : Clefs du succès de l'entrepreneur», Montréal, Editions de l'entrepreneur.
11. GIANNELLONI J.L. et VERNETTE E. (2001) «Etudes de marché», Paris, Vuibert.
12. GUEGUEN G. (2001) «Environnement et management stratégique des PME: le cas du secteur Internet», thèse de doctorat en science de gestion, Université Montpelier, 587p.
13. JULIEN P.A. (1995) «New technologies and technological information in small business», Journal of Business Venturing, vol. 10, pp.459-475.
14. JULIEN P.A. et MORIN M. (1996) «Mondialisation de l'économie et PME québécoises», Presse de l'Université du Québec.
15. LAGHZAOUI S. (2006) «L'internationalisation des PME: Pour une relecture en termes de ressources et compétences», 8ème congrès international Francophone en entrepreneuriat et PME, octobre 2006, Haute école de gestion (HEG) Fribourg, Suisse.
16. LETHIAIS V. et SMATI W. (2008) «Appropriation des TIC et performance des entreprises», Môle Armoricain de Recherche sur la Société de l'Information et les usages d'Internet (Marsouin), Enquête 2008.
17. LIMAYEM M. et CHABCHOUB N. (1999) «Les facteurs influençant l'utilisation d'Internet dan les organisations canadiennes», Systèmes d'Information et Management, vol. 1, n°4. s
18. MONOD E. (2003) «Internet et performance de l'entreprise : Etude de l'organisation industrielle de 104 PME en Loire-Atlantique», ANN. Télécommun., vol 58, n° 1-2, 2003.
19. MUCCHIELLI A. (2001) «Les sciences de l'information et de la communication», Hachette livre, Paris 2001.
20. OCDE (2003) «Les TIC et la croissance économique, Panorama des industries, des entreprises et des pays de l'OCDE», Organisation de Coopération et de développement Economiques, Paris 2003.
21. PRAHALAD C. et HAMEL G. (1990) «The Core Competence of the Corporation», Harvard Business Review, Vol.90, N° 3, pp. 79-91.
22. RAYMOND L. (2001) «Determinants of web site implementation in small businesses», Internet Research, vol. 11, n°5.
23. RAYMOND L., BERGERON F., LECLERC C. et GLADU M. (1998) «Impact de la congruence des TIC sur la performance des PME: une étude empirique», Actes du 6ème Congrès Européen sur les Systèmes d'Information, Aix en Provence.
24. RAYMOND L. etST-PIERRE J. (2005) «Antecedents and performance outcomes of advanced manufacturing systems sophistication in SMEs», International Journal of Operations & Production Management, vol-25, n°6.
25. RIEMENSCHNEIDER C.L. etMYKYTYN P.P. (2000) «What small business executives have learned about managing information technology», Information and Management, 37, pp.257-269.
26. ST-PIERRE J., MONNOYER M. C. et BOUTARY M. (2006) «Le rôle des TIC sur le degré d'exportation des PME: une étude exploratoire», 8ème congrès international Francophone en entrepreneuriat et PME: L'internationalisation des PME et ses conséquences sur les stratégies entrepreneuriales, octobre 2006, Suisse.
27. THOMPSON S.H Teo, MARGARET T. etWONG K.B (1998) «A contingency model of Internet adoption in Singapore», International Journal of Electronic Commerce, vol 2, n°2, pp. 95-118.
28. UWIZEYEMUNGU S. et RAYMOND L. (2004) «Profil d'adoption des systèmes de gestion intégrés dans les PME manufacturières», 7ème Congrès International Francophone en Entrepreneuriat et PME (CIFEPME), 27, 28 et 29 Octobre 2004, Montpellier.
29. VENKATESH V. et DAVIS F.D. (2000) «Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies», Management Science, vol 46, n°2, pp.186-204.

Annexes

Annexe 1 : Encadré méthodologique: Guide d'entretien

Thème : Les facteurs d'utilisation desapplications Internet dans l'entreprise

Q1: Pouvez-vous nous citer les raisons qui vous poussent à utiliser l'Internet et ses applications au sein de votre entreprise ?

Questions de relance:

Q2: Pensez-vous que des facteurs entrepreneuriaux peuvent influencer votre comportement vis à vis l'utilisation des applications Internet ? Si oui, citez-moi ces facteurs.

Q3: Pensez-vous que l'environnement de l'entreprise a un effet sur l'utilisation des applications Internet au sein de votre entreprise ? Si oui, racontez-moi comment cela se passe-t-il ?

Q4: Pensez-vous que le dirigeant de l'entreprise joue un rôle important dans la stratégie de l'utilisation des applications Internet ? Si oui, décrivez-nous comment?

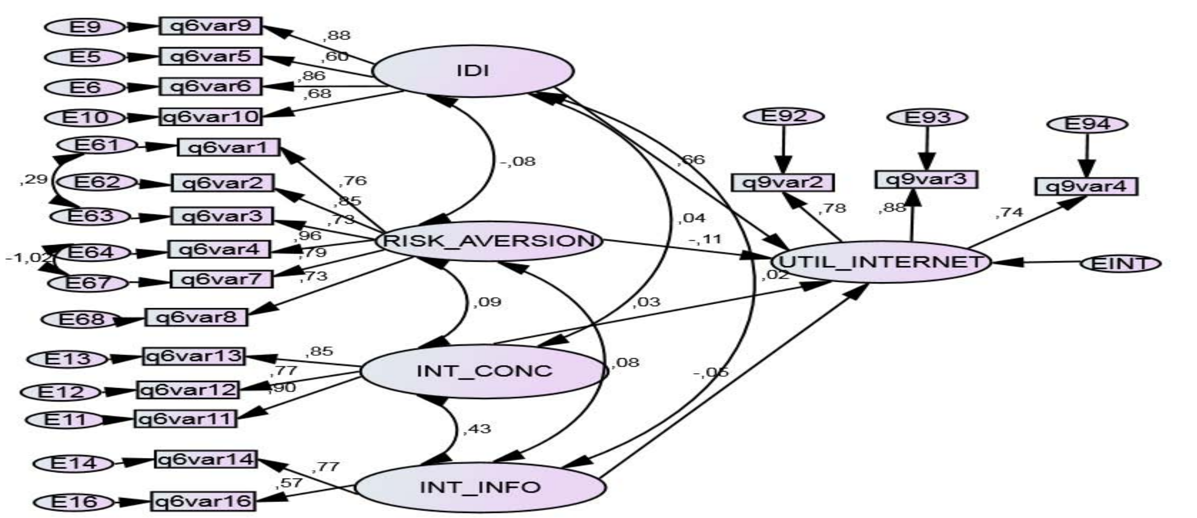
Annexe 2 : Quelques éléments détaillés de l'analyse de contenu thématique

Facteurs	Unité d'analyse identifiée	Exemples de verbatim exprimé	Indice d'apparition
Facteurs entrepreneuriaux (liés au dirigeant)	- Intérêt du dirigeant envers lesapplications Internet	*«...je porte un grand intérêt pour l'Internet et ses applications...»*	15
	- Aversion au risque	*« ...je me comporte d'une façon prudente envers les technologies peu familières… »*	11
Facteurs liés à l'environnement	-Intensité de la concurrence	*« …le grand nombre des concurrents existants sur le marché nous oblige à utiliser des technologies Internet avancées…pour éviter le risque de rester en dehors »*	9
	-Intensité de l'information	*« …nos produits vendus exigent beaucoup d'informations et de publicité et ceci nous incite à utiliser des technologies Internet pour faciliter la vente de nos produits… »*	10

Annexe 3 : les échelles de mesure des variables du modèle

Mesure de variable	Référence	Items
Intérêt du dirigeant envers les Technologies Internet	Thompson S.H Teo et *al.* (1998)	1. le dirigeant de l'entreprise est intéressé par l'adoption de l'Internet. 2. le dirigeant considère que l'adoption de l'Internet au sein de l'entreprise est importante. 3. le dirigeant accepte les technologies peu familières. 4. le dirigeant accepte d'investir des fonds dans les technologies Internet.
Aversion au risque	Thompson S.H Teo et *al.* (1998)	1. L'entreprise n'a pas la tradition d'être la première à essayer la nouvelle technologie. 2. l'entreprise ne dépense pas dans le développement de nouveaux produits par rapport aux concurrents.

		3. l'entreprise ne recrute pas des personnels techniques 4. l'entreprise n'est pas consciente par les derniers développements technologiques. 5. le dirigeant ne montre pas son assistance pour l'adoption de l'Internet. 6. le dirigeant n'accepte pas les changements organisationnels.
Intensité de la concurrence	Thompson S.H Teo et *al.* (1998)	1. il y a une sévère concurrence basée sur le prix. 2. il y a une sévère concurrence basée sur la qualité des produits et la nouveauté. 3. il y a un nombre élevé de concurrents dans l'industrie.
Intensité de l'information	Thompson S.H Teo et *al.* (1998)	1. le produit dans notre industrie exige beaucoup d'informations pour vendre. 2. le produit dans notre industrie est complexe pour comprendre ou utiliser. 3. la commande de produits dans notre industrie est un processus complexe. 4. le produit dans notre industrie est caractérisé par un long cycle de vie.



Chi2/ddl=1,198 RMSEA=,031 GFI=,928 AGFI=,900 NFI=,930 TLI=,984 CFI=,987

Annexe 4 : diagramme structurel restitué par le logiciel AMOS

This page is intentionally left blank

Global Journal of Management and Business Research: B
Economics and Commerce
Volume 15 Issue 8 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Stock Market Development and Economic Growth in Sri Lanka

By S. A. U. Niranjala

Wuhan University of Technology, Sri Lanka

Abstract- Stock markets have long played an important role in economic life (Stijn, V. N., Frans, B., Ludo, C., 2006). The objective of this study is to explore the presence of a causal relationship between stock market development and economic growth in Sri Lanka. Sample period uses annual time series data over the period from 1990 to 2013. To address this relationship, a Granger Causality Test was employed. Nominal GDP values are used as a proxy for economic growth, and market capitalization ratio (MCR) is used as a proxy for stock market development. The results of this study support that the stock market performance plays a major role in economic growth in Sri Lanka.

Keywords: economic growth, market capitalization, granger causality.

GJMBR - B Classification : JEL Code: O40

STOCKMARKETDEVELOPMENTANDECONOMICGROWTHINSRILANKA

Strictly as per the compliance and regulations of:

Stock Market Development and Economic Growth in Sri Lanka

S. A. U. Niranjala

Abstract- Stock markets have long played an important role in economic life (Stijn, V. N., Frans, B., Ludo, C., 2006). The objective of this study is to explore the presence of a causal relationship between stock market development and economic growth in Sri Lanka. Sample period uses annual time series data over the period from 1990 to 2013. To address this relationship, a Granger Causality Test was employed. Nominal GDP values are used as a proxy for economic growth, and market capitalization ratio (MCR) is used as a proxy for stock market development. The results of this study support that the stock market performance plays a major role in economic growth in Sri Lanka.

Keywords: economic growth, market capitalization, granger causality.

I. Introduction

Stock markets have long played an important role in economic life (Stijn, V. N., Frans, B., Ludo, C., 2006). This paper examines the long run and causal relationship between stock market development and economic growth. In general, the literature indicates that long-run growth is positively associated with the development of stock markets (e.g. Levine and Zervos, 1996, 1998; Singh, 1997), and that the liquidity of stock markets is strongly correlated with current and future rates of economic growth (Levine and Zervos, 1998).

The objective of this study is to explore the presence of a causal relationship between stock market development and economic growth in Sri Lanka. Nominal GDP values are used as a proxy for economic growth, and market capitalization ratio (MCR) is used as a proxy for stock market development. Second indicator used is the value traded ratio, which equals the total value of shares traded on the stock exchange divided by GDP (VT) (Akinlo, A.E., & Akinlo, O.O., 2009). To address this relationship, a Granger Causality Test was employed. However, before running a Granger Causality test, it must be determined whether the variables are stationary and, if not, whether they are co-integrated. To test whether variables are stationary, an augmented Dickey-Fuller unit root test (ADF) was employed.

II. Literature Review

The idea that financial development promotes growth was first put forth by Schumpeter as early as 1911 (Schumpeter, 1912). Several other economists have investigated this relationship and hold the view that financial development is a necessary condition for achieving high rate of economic growth (Goldsmith, 1969; Mckinnon, 1973; Shaw, 1973).

The relationship between financial development and economic growth has been debated quite extensively in the literature, yet the direction of causality relationship remains unresolved. The debate has focused on whether financial development causes economic growth or economic growth causes financial development or whether a two-way relationship exists. While some studies found a unidirectional causality running from financial development to economic growth; others reported the obverse. Few other studies found evidence of bidirectional relationship while a handful provided evidence of neutrality of finance and economic growth. However, the general observation from the literature is that most studies on the causal relationship between financial development and economic growth have focused on developed economies. Although few studies, based exclusively on African data, exist on the finance–economic growth puzzle, none has considered the relationship between in Africa, the emphasis has been on testing for market efficiency, development of the stock markets and the impact of economic variables on stock markets (Akinlo, A.E., & Akinlo, O.O., 2009).

Several empirical studies have been conducted on the impact of financial development on economic growth. However, some of these have focused specifically on stock markets. These include Levine and Zervos (1993, 1998), Atje and Jovanovic (1993), Rousseau and Wachtel (2000), Beck and Levine (2002) and Caporale, Howells, and Soliman (2004) among others. The study by Atje and Jovanovic (1993) using cross-sectional regressions concludes that stock markets have long-run impacts on economic growth. Harris (1997) equally shows, within a cross-sectional framework, that stock markets promote growth though this occurs for developed countries. Levine and Zervos (1998) study of 48 countries (1973–1993) concludes that stock market liquidity positively predicts growth, capital accumulation and productivity improvements. In addition, they show that stock market size, volatility and international integration are not robustly linked with growth. Rousseau and Wachtel (2000) and Beck and Levine (2002) using cross country regression framework show that stock market development is strongly correlated with growth rates of real GDP per capita.

Author: Wuhan University of Technology, School of Economics.
e-mail: niranjalaamukotuwa@yahoo.com

More importantly, they find that stock market liquidity and banking development both predict the future growth rate of the economy when the two variables both enter the growth regression. Studies by Arestis, Demetriades, and Luintel (2001) using time series data on five industrialized countries indicate that stock markets play a role in growth whilst Caporale et al. (2004) using techniques developed by Toda and Yamamoto (1995) show that well-developed stock markets can foster economic growth in the long run.

Stock markets can influence economic growth in the developing economies in several ways. By enabling savers to acquire equity which they can sell when they wish to have access to their savings or change their portfolios, liquid stock markets enable investors to reduce risk (Levine, 1996). Stock markets also play an important role in allocating capital to the corporate sector through the sale of shares. Particularly in countries faced with financial constraints, stock markets enable firms to raise capital required for long-term investment which in turn promotes economic growth. Liquid stock markets can in addition, promote economic growth by reducing transactions costs (Bencivenga et al., 1996). By permitting investors to hold shares in a number of firms, stock markets enable risk diversification. Risk diversification allows more profitable investments to be undertaken contributing to economic growth.

The somre of literature focuses on (long-term) stock market development. Levine and Zervos (1998b) outline a benevolent mechanism from liberalization through overall stock market development to the real economy. Briefly, they find that liberalization tends to increase various measures of stock market development, including market capitalization to GDP and liquidity (measured by the total valued traded to GDP or alternatively, to total market capitalization). Citing a separate inquiry (Levine and Zervos, 1998a), equity market development, in particular market liquidity, is in turn, a robust determinant of macroeconomic growth using a sample of up to approximately 65 higher- and lower-income countries from 1976 to 1993. Therefore, this benevolent long-run indirect mechanism from reform to growth.

Especially, samples that produce positive empirical relations between stock market development indicators and economic growth include developed countries. Even augmented analyses that include cases in which stock market activity is 'inconsequential' (Levine and Zervos, 1998a, p. 553) still use information from OECD countries to produce robust estimates.

Gurley and Shaw (1955), who argued that financial sector development promotes economic growth by enhancing physical capital accumulation. Following this evidence, studies by McKinnon (1973) and Shaw (1973) showed that financial sector development is key to economic growth subject to dismantling financial repression. These two studies did not explicitly outline the role of stock markets; – in fact Shaw argued that the development of stock markets in early stages of development may be very expensive for developing economies. Stock markets impact on the economy in the following ways: (i) it helps in savings mobilization and therefore increasing the savings rate thus facilitating higher capital formation and economic growth, (ii) it reduces investment risks owing to the ease with which equities are traded. This therefore implies that the stock markets play a central role in economic performance.

III. Methodology

a) Econometric model

A Vector Auto-Regression (VAR) model was used to analysis the dynamic impact of random disturbances on the system of variables. The VAR model includes the following 03 variables.

- Nominal GDP (GDP)
- Stock market capitalization ratio (MCR)
- Stock value traded ratio (VT)

b) Data Collection

Sample period uses annual time series data over the period from 1990 to 2013. These annual data were obtained from the various issues of Economic and Social Statistics of Sri Lanka and Annual reports published by the Central Bank of Sri Lanka. Nominal GDP values are used as a proxy for economic growth, and market capitalization ratio (MCR) is used as a proxy for stock market development.

Stock market capitalization ratio (LS) – This variable is the ratio of the total value of listed shares (market capitalization) to GDP, both in nominal values. This variable aims to measure the development of stock markets under the assumption that the "size" of the market is positively correlated with existing liquidity (Levine and Zervos, 1996).

Second indicator used is the value traded ratio, which equals the total value of shares traded on the stock exchange divided by GDP (VT) (Akinlo,A.E., & Akinlo, O.O., 2009).

Table o1 shows the summary statistics of nominal GDP values, stock market capitalization ratio and stock value traded ratio.

Table 01 : Variable definitions and summary statistics

Variable	Definition	Descriptive Statistics				
		observations	Mean	SD[1]	Min[2]	Max[3]
GDP	Nominal GDP values	24	2.5594E6	2.45691E6	3.22E5	8.67E6
MCR	Stock market capitalization ratio	24	17.6375	8.25289	7.00	34.5
VT	Stock value traded ratio	24	0.030892	0.0236244	0.0049	0.1018

Notes:
1 Standard deviation
2 Minimum
3 Maximum

c) *Data Analysis*

The following method were used for data analysis and evaluation

- Test of Stationarity - an augmented Dickey-Fuller unit root test (ADF)
- Test using Vector Auto-Regression (VAR) model
- Test using Johansen Co integration Test
- Test using Granger Causality Test

IV. Results and Discussion

Fig. 1 indicates the non stationary of the variables. If there is no stationary, there is a possibility that spurious regressions will be produced (Harris, 1995).

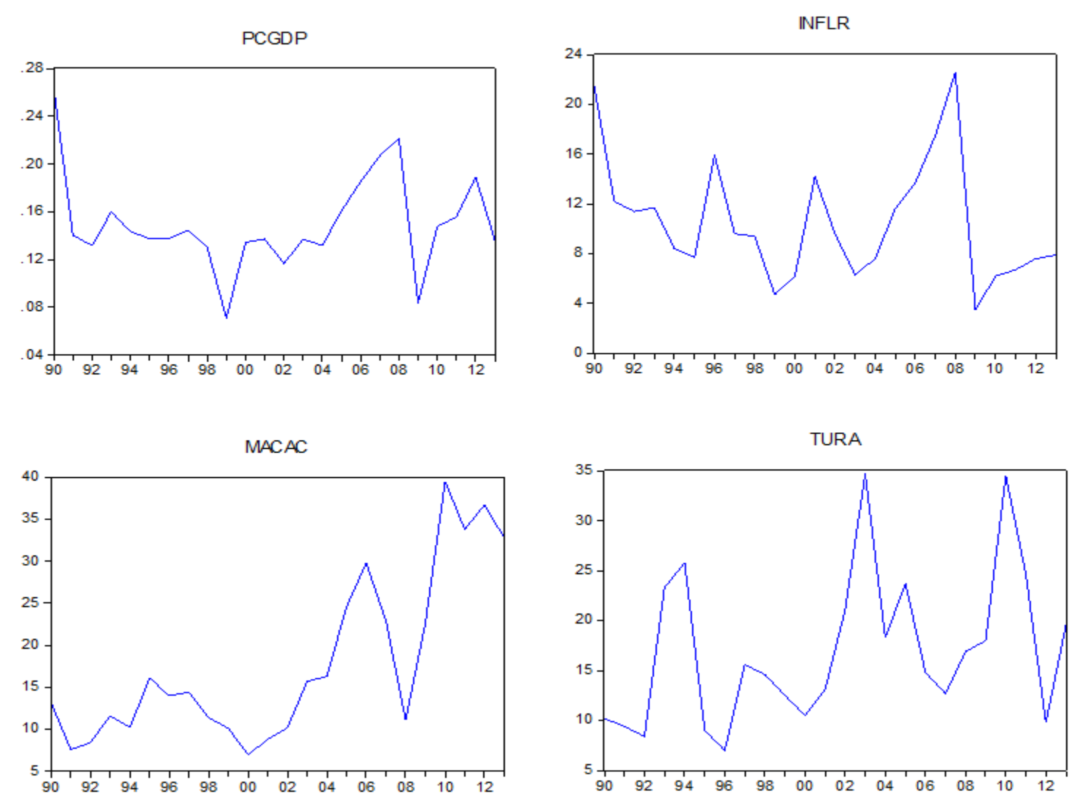


Figure 01

In principle researchers should consider that the relationships among variables have a long-run equilibrium. As a consequence, the co integration of those variables is tested. To do so, assure that all variables are integrated in order one, I (1). To analyze the order of integration of variables, worked upon: (i) graphical analyses of the level variables (Fig. 1) and (ii) Augmented Dick Fuller (ADF) test.

The Dickey- Fuller (ADF) test was applied to test each variable for stationary (including constant without trend and constant with trend) (table 02). The result indicate that the null hypothesis proposing non-stationarity of unit roots in the time series could not be rejected in both constant with trend and constant without trend for all variables (table 02). The test was, therefore, applied again at first difference for all variables those were found to be non-stationary at level. Therefore, the results indicate that the null hypothesis (proposing non stationary of unit roots in the time series) should be rejected at first difference (table 02). This implies that all variables in table 02 had one order of integration [1(1)].

Table 02 : Result of ADF Test

Variables Level	Constant without trend	Constant with trend
GDP(Log)	0.532543	-1.050515
MCR	0.150777	-2.290059
VT	-0.156366	-3.201228*
First Difference		
GDP(Log)	-3.320839**	-3.327760**
MCR	-4.233221***	-4.213487**
VT	-4.840989***	-4.717159***

****, ** and * imply that the reject the null hypothesis is that the time series has a stochastic trend or contain a unit root at 1%, 5% and 10%, respectively.*

a) *VAR test*

Having established stationarity for the variables at first difference, it was then possible to conduct the test of co-integration for long-term equilibrium by applying the VAR model (table 03).

The overall results for goodness of fit (calculated by R2 and adjusted R2) indicate that the estimated regressions were mostly explained by the independent variables on the right side of the equations. In addition, the F-test indicated that the null hypothesis (proposing no co integration among variables) should be rejected at the 5% significance level which means that long-term relationship exist among all the variables.

Table 03 : Results of estimated Vector Auto-Regression (VAR) model

	MCR	VT	LNGDP
MCR(-1)	0.706221	0.002006	0.004506
	(0.27027)	(0.00103)	(0.00130)
	[2.61301]	[1.94000]	[3.47568]
MCR(-2)	-0.938607	-0.001544	9.50E-05
	(0.40029)	(0.00153)	(0.00192)
	[-2.34484]	[-1.00793]	[0.04945]
VT(-1)	-4.703960	0.228779	-0.362138
	(63.4827)	(0.24288)	(0.30451)
	[-0.07410]	[0.94196]	[-1.18925]
VT(-2)	146.6656	-0.316842	-0.255786
	(75.3135)	(0.28814)	(0.36126)
	[1.94740]	[-1.09961]	[-0.70804]
LNGDP(-1)	71.05999	-0.055365	1.116798
	(57.7033)	(0.22077)	(0.27679)
	[1.23147]	[-0.25079]	[4.03487]
LNGDP(-2)	-65.96647	0.065647	-0.130336
	(57.1462)	(0.21863)	(0.27411)
	[-1.15435]	[0.30026]	[-0.47548]
C	-65.14037	-0.111445	0.258234
	(25.0276)	(0.09575)	(0.12005)
	[-2.60274]	[-1.16389]	[2.15105]
R-squared	0.761273	0.563790	0.999551
Adj. R-squared	0.665782	0.389306	0.999372
F-statistic	7.972201	3.231181	5567.747

The Johansen co-integration test results indicate that the null hypothesis (proposing no co-integrated) should be rejected at the 5% significance level. This supports the findings of the existence of a long-term relationship between economic growth and stock market performance (table 04).

Table 04 : Johansen Co integration Test for GDP, MCR, VT

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.640806	34.15429	24.27596	0.0021
At most 1	0.326104	11.62866	12.32090	0.0651
At most 2	0.125319	2.945707	4.129906	0.1019

Trace test indicates 1 co- integrating equations at the 0.05 level
** denotes rejection of the null hypothesis at the 0.05 level*
***MacKinnon-Haug-Michelis (1999) p-values*

b) Granger causality test

Granger causality allows us to identify the causal relationship between the series, which, according to Granger (1969), occurs when a particular variable in the present or in the past helps predict future values of another variable. The forecast error variance decomposition allows us to assess how a variable responds to shocks in specific variables, while the impulse response function allows us to analyze the behavior of the variables according to an existing impulse in another variable (ceteris paribus). In other words, it demonstrates the effect that a shock in the error term, in a given period, has on the values of current and future endogenous variables.

The null hypothesis for these tests can be formulated as follows,

- MCR does not Granger Cause GDP and vice versa
- VT does not Granger Cause GDP and vice versa
- VT does not Granger Cause MCR and vice versa

Table 05 : Results of Pair-wise Granger Causality Tests Lags: 2

Null Hypothesis	Obs.	F-Statistic	Prob.
MCR does not Granger Cause GDP	22	13.4675	0.0003
GDP does not Granger Cause MCR		7.08759	0.0058
VT does not Granger Cause GDP	22	0.82200	0.4563
GDP does not Granger Cause VT		9.39923	0.0018
VT does not Granger Cause MCR	22	1.01028	0.3850
MCR does not Granger Cause VT		3.71301	0.0459

Table 05 shows that the first null hypothesis (proposing that MCR do not Granger – cause GDP) should be rejected at the 1% significance level, the converse of the null hypothesis (proposing that GDP do not Granger- cause MCR) should be rejected at the 1% significance level. The results also show that the second null hypothesis (proposing that VT do not Granger-cause GDP) should not rejected and the converse of the null hypothesis is (proposing that GDP does not Grange Cause VT) could also be rejected. The results also show that the third null hypothesis (proposing that VT do not Granger –Cause MCR) be not rejected; however the converse of the null hypothesis (proposing that MCR does not Granger-Cause VT) could be rejected at the 5% significance level.

The overall results from table 05 provided evidence that the MCR have a strong relationship with economic growth in Sri Lanka.

V. Conclusion

The present study investigated the relationship between economic growth and stock market performance in Sri Lanka. By applying the modern econometric techniques, the study was able to identify important aspects of the long-term relationship between these variables from 1990-2013. The results also indicate co-integration between economic growth and stock market performance. In summary, the results of this study support the preposition that the stock market performance plays a major role in economic growth in Sri Lanka.

References Références Referencias

1. Akinlo, A.E., & Akinlo, O.O., (2009). Stock market development and economic growth: Evidence from seven sub-Sahara African countries. Journal of Economics and Business, 61, 162-171.
2. Arestis, P., Demetriades, P., & Luintel, K. (2001). Financial development and economic growth: The

role of stock markets. Journal of Money Credit and Banking, 33, 16–41.
3. Atje, R., & Jovanovic, B. (1993). Stock markets and development. European Economic.
4. Beck, T., & Levine, R. (2002). Stock markets, Banks and growth: panel evidence. NBER Working Paper 9082, Cambridge, 1–23.
5. Caporale, G. M., Howells, G. M., & Soliman, A. A. (2004). Stock markets development and economic growth: the causal linkage. Journal of Economic Development, 29(1), 33–50.
6. Goldsmith, R.W. (1969). Financial structure and development. New Haven: Yale University Press.
7. Granger, C.W.J., 1969. Investigating causal relations by econometric models and crossspectral methods. Econometrica 37 (3), 424–438.
8. Gurley, J., & Shaw, E. (1955). Financial aspects of economic development. American Economic Review, 45, 515–538.
9. Harris, R. D. F. (1997). Stock markets and development a reassessment. European Economic Review, 41(1), 139–146.
10. Harris, R.I.D., 1995. Using Cointegration Analysis in Econometric Modelling. Prentice Hall, London.
11. Levine, R., & Zervos, J. S. (1993). What we have learned about policy and growth from cross-country regressions? American Economic Review, 83, 426–430.
12. Levine, R., & Zervos, S. (1998). Stock markets, banks and economic growth. American Economic Review, 88, 537–558.
13. Levine, R., & Zervos, S. (1998). Stock markets, banks and economic growth. American Economic Review, 88, 537–558.
14. Levine, R., Zervos, S., 1996. Stock markets development and long-run growth. The World Bank Economic Review 10 (2), 323–339.
15. Levine, R., Zervos, S., 1998. Stock markets, banks, and economic growth. American Economic Review 88 (3), 537–558.
16. Mckinnon, R. I. (1973). Money and capital in economic development. Washington, DC: The Brookings Institution. Review, 37, 632–640.
17. McKinnon, R. I. (1973). Money and capital in economic development. Washington, DC: The Brookings Institution.
18. Ngare, E., Nyamongo, E. M., & Misati, R. N., (2014). Stock market development and economic growth in Africa. Journal of Economic and Business, 74, 24-39.
19. Rousseau, P., & Wachtel, P. (2000). Equity markets and growth: cross country evidence on timing and outcomes, 1980–1995.Journal of Business and Finance, 24, 1933–1957.
20. Schumpeter, J. (1912). The theory of economic development, leipzig: Dunker and Humblot, 1912; translated by Redevers Opie. Cambridge, MA: Harvard University Press., p. 1934.
21. Shaw, E. S. (1973). Financial deepening in economic development. New York: Oxford University Press.
22. Shaw, E. S. (1973). Financial deepening in economic development. New York: Oxford University Press.
23. Singh, A., 1997. Financial liberalisation, stock markets and economic development. The Economic Journal 107 (442), 771–782.
24. Stijn, V. N., Frans, B., Ludo, C., (2006). Stock market development and economic growth in Belgium. Explorations in Economic History, 43, 13-38.
25. Toda, H. Y., & Yamamoto, T. (1995). Statistical Inference in vector auto regressions with possibly integrated processes. Journal of Econometrics, 66, 225–250.

Global Journals Inc. (US) Guidelines Handbook 2015

www.GlobalJournals.org

FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (FARSB)

Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards “FARSB” title to individuals. The 'FARSB' title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.

- The “FARSB” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSB or William Walldroff, M.S., FARSB.

FARSB accrediting is an honor. It authenticates your research activities. After recognition as FARSB, you can add 'FARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, and Visiting Card etc.

The following benefits can be availed by you only for next three years from the date of certification:

FARSB designated members are entitled to avail a 40% discount while publishing their research papers (of a single author) with Global Journals Incorporation (USA), if the same is accepted by Editorial Board/Peer Reviewers. If you are a main author or co-author in case of multiple authors, you will be entitled to avail discount of 10%.

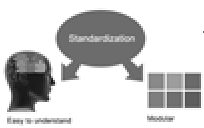
Once FARSB title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA).The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent.

You may join as member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. In addition, it is also desirable that you should organize seminar/symposium/conference at least once.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time.This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The FARSB can go through standards of OARS. You can also play vital role if you have any suggestions so that proper amendment can take place to improve the same for the benefit of entire research community.

As FARSB, you will be given a renowned, secure and free professional email address with 100 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders,Auto-Responders, Email Delivery Route tracing, etc.



The FARSB will be eligible for a free application of standardization of their researches. Standardization of research will be subject to acceptability within stipulated norms as the next step after publishing in a journal. We shall depute a team of specialized research professionals who will render their services for elevating your researches to next higher level, which is worldwide open standardization.

The FARSB member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A. Once you are designated as FARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website https://associationofresearch.org which will be helpful to upgrade the dignity.

The FARSB members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.

The FARSB member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.

The FARSB is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSB can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSC member can decide its price and we can help in making the right decision.

The FARSB member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.

MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (MARSB)

The ' MARSB ' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The “MARSB” is a dignified ornament which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., MARSB or William Walldroff, M.S., MARSB.

MARSB accrediting is an honor. It authenticates your research activities. After becoming MARSB, you can add 'MARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

The following benefitscan be availed by you only for next three years from the date of certification.

MARSB designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSB, you will be given a renowned, secure and free professional email address with 30 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders,Auto-Responders, Email Delivery Route tracing, etc.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time.This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSB member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.

Once you are designated as MARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.

Institutional Fellow of Open Association of Research Society (USA)-OARS (USA)

Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as “Institutional Fellow of Open Association of Research Society” (IFOARS).

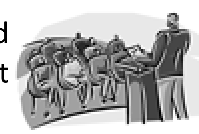
The “FARSC” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.

The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as “Institutional Board of Open Association of Research Society”-(IBOARS).

The Institute will be entitled to following benefits:

The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA) The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.
The author fees of such paper may be waived off up to 40%.

The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.

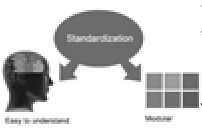


The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of “Open Association of Research Society, U.S.A (OARS)” so that proper amendment can take place for the benefit of entire research community. We shall provide details of particular standard only on receipt of request from the Board.

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.



After nomination of your institution as "Institutional Fellow" and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.

The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.

Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.

We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth $ 2376 USD.

Other:

The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.

- In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10%discount if one is co-author or main author among group of authors.
- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in–depth understanding of the application of suitable techniques to a particular area of research practice.

Note :

"

- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of "Difference of Opinion [if any]" among the Board members, our decision will be final and binding to everyone.

"

Process of submission of Research Paper

The Area or field of specialization may or may not be of any category as mentioned in 'Scope of Journal' menu of the GlobalJournals.org website. There are 37 Research Journal categorized with Six parental Journals GJCST, GJMR, GJRE, GJMBR, GJSFR, GJHSS. For Authors should prefer the mentioned categories. There are three widely used systems UDC, DDC and LCC. The details are available as 'Knowledge Abstract' at Home page. The major advantage of this coding is that, the research work will be exposed to and shared with all over the world as we are being abstracted and indexed worldwide.

The paper should be in proper format. The format can be downloaded from first page of 'Author Guideline' Menu. The Author is expected to follow the general rules as mentioned in this menu. The paper should be written in MS-Word Format (*.DOC,*.DOCX).

The Author can submit the paper either online or offline. The authors should prefer online submission.<u>Online Submission</u>: There are three ways to submit your paper:

(A) (I) First, register yourself using top right corner of Home page then Login. If you are already registered, then login using your username and password.

(II) Choose corresponding Journal.

(III) Click 'Submit Manuscript'. Fill required information and Upload the paper.

(B) If you are using Internet Explorer, then Direct Submission through Homepage is also available.

(C) If these two are not convenient, and then email the paper directly to dean@globaljournals.org.

Offline Submission: Author can send the typed form of paper by Post. However, online submission should be preferred.

MANUSCRIPT STYLE INSTRUCTION **(Must be strictly followed)**

Page Size: 8.27" X 11'"

- Left Margin: 0.65
- Right Margin: 0.65
- Top Margin: 0.75
- Bottom Margin: 0.75
- Font type of all text should be Swis 721 Lt BT.
- Paper Title should be of Font Size 24 with one Column section.
- Author Name in Font Size of 11 with one column as of Title.
- Abstract Font size of 9 Bold, “Abstract” word in Italic Bold.
- Main Text: Font size 10 with justified two columns section
- Two Column with Equal Column with of 3.38 and Gaping of .2
- First Character must be three lines Drop capped.
- Paragraph before Spacing of 1 pt and After of 0 pt.
- Line Spacing of 1 pt
- Large Images must be in One Column
- Numbering of First Main Headings (Heading 1) must be in Roman Letters, Capital Letter, and Font Size of 10.
- Numbering of Second Main Headings (Heading 2) must be in Alphabets, Italic, and Font Size of 10.

You can use your own standard format also.
Author Guidelines:

1. General,

2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript’s Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

1. GENERAL

Before submitting your research paper, one is advised to go through the details as mentioned in following heads. It will be beneficial, while peer reviewer justify your paper for publication.

Scope

The Global Journals Inc. (US) welcome the submission of original paper, review paper, survey article relevant to the all the streams of Philosophy and knowledge. The Global Journals Inc. (US) is parental platform for Global Journal of Computer Science and Technology, Researches in Engineering, Medical Research, Science Frontier Research, Human Social Science, Management, and Business organization. The choice of specific field can be done otherwise as following in Abstracting and Indexing Page on this Website. As the all Global

Journals Inc. (US) are being abstracted and indexed (in process) by most of the reputed organizations. Topics of only narrow interest will not be accepted unless they have wider potential or consequences.

2. ETHICAL GUIDELINES

Authors should follow the ethical guidelines as mentioned below for publication of research paper and research activities.

Papers are accepted on strict understanding that the material in whole or in part has not been, nor is being, considered for publication elsewhere. If the paper once accepted by Global Journals Inc. (US) and Editorial Board, will become the copyright of the Global Journals Inc. (US).

Authorship: The authors and coauthors should have active contribution to conception design, analysis and interpretation of findings. They should critically review the contents and drafting of the paper. All should approve the final version of the paper before submission

The Global Journals Inc. (US) follows the definition of authorship set up by the Global Academy of Research and Development. According to the Global Academy of R&D authorship, criteria must be based on:

1) Substantial contributions to conception and acquisition of data, analysis and interpretation of the findings.

2) Drafting the paper and revising it critically regarding important academic content.

3) Final approval of the version of the paper to be published.

All authors should have been credited according to their appropriate contribution in research activity and preparing paper. Contributors who do not match the criteria as authors may be mentioned under Acknowledgement.

Acknowledgements: Contributors to the research other than authors credited should be mentioned under acknowledgement. The specifications of the source of funding for the research if appropriate can be included. Suppliers of resources may be mentioned along with address.

Appeal of Decision: The Editorial Board's decision on publication of the paper is final and cannot be appealed elsewhere.

Permissions: It is the author's responsibility to have prior permission if all or parts of earlier published illustrations are used in this paper.

Please mention proper reference and appropriate acknowledgements wherever expected.

If all or parts of previously published illustrations are used, permission must be taken from the copyright holder concerned. It is the author's responsibility to take these in writing.

Approval for reproduction/modification of any information (including figures and tables) published elsewhere must be obtained by the authors/copyright holders before submission of the manuscript. Contributors (Authors) are responsible for any copyright fee involved.

3. SUBMISSION OF MANUSCRIPTS

Manuscripts should be uploaded via this online submission page. The online submission is most efficient method for submission of papers, as it enables rapid distribution of manuscripts and consequently speeds up the review procedure. It also enables authors to know the status of their own manuscripts by emailing us. Complete instructions for submitting a paper is available below.

Manuscript submission is a systematic procedure and little preparation is required beyond having all parts of your manuscript in a given format and a computer with an Internet connection and a Web browser. Full help and instructions are provided on-screen. As an author, you will be prompted for login and manuscript details as Field of Paper and then to upload your manuscript file(s) according to the instructions.

To avoid postal delays, all transaction is preferred by e-mail. A finished manuscript submission is confirmed by e-mail immediately and your paper enters the editorial process with no postal delays. When a conclusion is made about the publication of your paper by our Editorial Board, revisions can be submitted online with the same procedure, with an occasion to view and respond to all comments.

Complete support for both authors and co-author is provided.

4. MANUSCRIPT'S CATEGORY

Based on potential and nature, the manuscript can be categorized under the following heads:

Original research paper: Such papers are reports of high-level significant original research work.

Review papers: These are concise, significant but helpful and decisive topics for young researchers.

Research articles: These are handled with small investigation and applications

Research letters: The letters are small and concise comments on previously published matters.

5.STRUCTURE AND FORMAT OF MANUSCRIPT

The recommended size of original research paper is less than seven thousand words, review papers fewer than seven thousands words also.Preparation of research paper or how to write research paper, are major hurdle, while writing manuscript. The research articles and research letters should be fewer than three thousand words, the structure original research paper; sometime review paper should be as follows:

Papers: These are reports of significant research (typically less than 7000 words equivalent, including tables, figures, references), and comprise:

(a)Title should be relevant and commensurate with the theme of the paper.

(b) A brief Summary, "Abstract" (less than 150 words) containing the major results and conclusions.

(c) Up to ten keywords, that precisely identifies the paper's subject, purpose, and focus.

(d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.

(e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.

(f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;

(g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.

(h) Brief Acknowledgements.

(i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and to make suggestions to improve briefness.

It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

Format

Language: The language of publication is UK English. Authors, for whom English is a second language, must have their manuscript efficiently edited by an English-speaking person before submission to make sure that, the English is of high excellence. It is preferable, that manuscripts should be professionally edited.

Standard Usage, Abbreviations, and Units: Spelling and hyphenation should be conventional to The Concise Oxford English Dictionary. Statistics and measurements should at all times be given in figures, e.g. 16 min, except for when the number begins a sentence. When the number does not refer to a unit of measurement it should be spelt in full unless, it is 160 or greater.

Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than 1.4 × 10-3 m3, or 4 mm somewhat than 4 × 10-3 m. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

Structure

All manuscripts submitted to Global Journals Inc. (US), ought to include:

Title: The title page must carry an instructive title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) wherever the work was carried out. The full postal address in addition with the e-mail address of related author must be given. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining and indexing.

Abstract, used in Original Papers and Reviews:

Optimizing Abstract for Search Engines

Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art.A few tips for deciding as strategically as possible about keyword search:

- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
- It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.
- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author's name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and Similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

The Editorial Board and Global Journals Inc. (US) recommend that, citation of online-published papers and other material should be done via a DOI (digital object identifier). If an author cites anything, which does not have a DOI, they run the risk of the cited material not being noticeable.

The Editorial Board and Global Journals Inc. (US) recommend the use of a tool such as Reference Manager for reference management and formatting.

Tables, Figures and Figure Legends

Tables: Tables should be few in number, cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g. Table 4, a self-explanatory caption and be on a separate sheet. Vertical lines should not be used.

Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

Preparation of Electronic Figures for Publication

Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution (at final image size) ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs) : >350 dpi; figures containing both halftone and line images: >650 dpi.

Color Charges: It is the rule of the Global Journals Inc. (US) for authors to pay the full cost for the reproduction of their color artwork. Hence, please note that, if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a color work agreement form before your paper can be published.

Figure Legends: Self-explanatory legends of all figures should be incorporated separately under the heading 'Legends to Figures'. In the full-text online edition of the journal, figure legends may possibly be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should notify the reader, about the key aspects of the figure.

6. AFTER ACCEPTANCE

Upon approval of a paper for publication, the manuscript will be forwarded to the dean, who is responsible for the publication of the Global Journals Inc. (US).

6.1 Proof Corrections

The corresponding author will receive an e-mail alert containing a link to a website or will be attached. A working e-mail address must therefore be provided for the related author.

Acrobat Reader will be required in order to read this file. This software can be downloaded

(Free of charge) from the following website:

www.adobe.com/products/acrobat/readstep2.html. This will facilitate the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof.

Proofs must be returned to the dean at dean@globaljournals.org within three days of receipt.

As changes to proofs are costly, we inquire that you only correct typesetting errors. All illustrations are retained by the publisher. Please note that the authors are responsible for all statements made in their work, including changes made by the copy editor.

6.2 Early View of Global Journals Inc. (US) (Publication Prior to Print)

The Global Journals Inc. (US) are enclosed by our publishing's Early View service. Early View articles are complete full-text articles sent in advance of their publication. Early View articles are absolute and final. They have been completely reviewed, revised and edited for publication, and the authors' final corrections have been incorporated. Because they are in final form, no changes can be made after sending them. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so Early View articles cannot be cited in the conventional way.

6.3 Author Services

Online production tracking is available for your article through Author Services. Author Services enables authors to track their article - once it has been accepted - through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The authors will receive an e-mail with a unique link that enables them to register and have their article automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript.

6.4 Author Material Archive Policy

Please note that if not specifically requested, publisher will dispose off hardcopy & electronic information submitted, after the two months of publication. If you require the return of any information submitted, please inform the Editorial Board or dean as soon as possible.

6.5 Offprint and Extra Copies

A PDF offprint of the online-published article will be provided free of charge to the related author, and may be distributed according to the Publisher's terms and conditions. Additional paper offprint may be ordered by emailing us at: editor@globaljournals.org .

You must strictly follow above Author Guidelines before submitting your paper or else we will not at all be responsible for any corrections in future in any of the way.

Before start writing a good quality Computer Science Research Paper, let us first understand what is Computer Science Research Paper? So, Computer Science Research Paper is the paper which is written by professionals or scientists who are associated to Computer Science and Information Technology, or doing research study in these areas. If you are novel to this field then you can consult about this field from your supervisor or guide.

TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

1. Choosing the topic: In most cases, the topic is searched by the interest of author but it can be also suggested by the guides. You can have several topics and then you can judge that in which topic or subject you are finding yourself most comfortable. This can be done by asking several questions to yourself, like Will I be able to carry our search in this area? Will I find all necessary recourses to accomplish the search? Will I be able to find all information in this field area? If the answer of these types of questions will be "Yes" then you can choose that topic. In most of the cases, you may have to conduct the surveys and have to visit several places because this field is related to Computer Science and Information Technology. Also, you may have to do a lot of work to find all rise and falls regarding the various data of that subject. Sometimes, detailed information plays a vital role, instead of short information.

2. Evaluators are human: First thing to remember that evaluators are also human being. They are not only meant for rejecting a paper. They are here to evaluate your paper. So, present your Best.

3. Think Like Evaluators: If you are in a confusion or getting demotivated that your paper will be accepted by evaluators or not, then think and try to evaluate your paper like an Evaluator. Try to understand that what an evaluator wants in your research paper and automatically you will have your answer.

4. 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.

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

6. Use of computer is recommended: As you are doing research in the field of Computer Science, then this point is quite obvious.

7. Use right software: Always use good quality software packages. If you are not capable to judge good software then you can lose quality of your paper unknowingly. There are various software programs available to help you, which you can get through Internet.

8. Use the Internet for help: An excellent start for your paper can be by using the Google. It is an excellent search engine, where you can have your doubts resolved. You may also read some answers for the frequent question how to write my research paper or find model research paper. From the internet library you can download books. If you have all required books make important reading selecting and analyzing the specified information. Then put together research paper sketch out.

9. Use and get big pictures: Always use encyclopedias, Wikipedia to get pictures so that you can go into the depth.

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

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

12. Make all efforts: Make all efforts to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in introduction, that what is the need of a particular research paper. Polish your work by good skill of writing and always give an evaluator, what he wants.

13. Have backups: When you are going to do any important thing like making research paper, you should always have backup copies of it either in your computer or in paper. This will help you to not to lose any of your important.

14. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating "hotchpotch." So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. Never use online paper: If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. Pick a good study spot: To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. Know what you know: Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. Use good quality grammar: Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

21. 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 to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

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

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

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

27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After 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 though which your research is going to be in print to 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 in 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 criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of 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 the 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 evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

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

Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript--must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing 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 approach 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. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than 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 maintain the initial two items to no more than one ruling each.

- Reason of the study - 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 quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness 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 to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled 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 with every section. If you make the four points listed above, you will need a least of four paragraphs.

- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose 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 sound written Procedures segment allows a capable scientist to replacement 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 for the least amount of information that would permit another capable scientist to spare 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 object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text 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:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not 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 - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in 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 a 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. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise 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 in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to 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 part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a 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 implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly 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 with prospect, and let it drop at that.

- Make a decision if each premise is supported, 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 the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One 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 available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

Segment Draft and Final Research Paper: You have to strictly follow the template of research paper. If it is not done your paper may get rejected.

- The **major constraint** is that you must independently make all content, tables, graphs, and facts that are offered in the paper. You must write each part of the paper wholly on your own. The Peer-reviewers need to identify your own perceptive of the concepts in your own terms. NEVER extract straight from any foundation, and never rephrase someone else's analysis.

- Do not give permission to anyone else to "PROOFREAD" your manuscript.

- Methods to avoid Plagiarism is applied by us on every paper, if found guilty, you will be blacklisted by all of our collaborated research groups, your institution will be informed for this and strict legal actions will be taken immediately.)
- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.

Criterion for Grading a Research Paper (Compilation) by Global Journals Inc. (US)

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals Inc. (US).

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	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
Introduction	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
Methods and Procedures	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
Result	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
Discussion	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
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

INDEX

save our planet

Global Journal of Management and Business Research

Visit us on the Web at www.GlobalJournals.org | www.JournalofBusiness.Org
or email us at helpdesk@globaljournals.org

ISSN 9755853