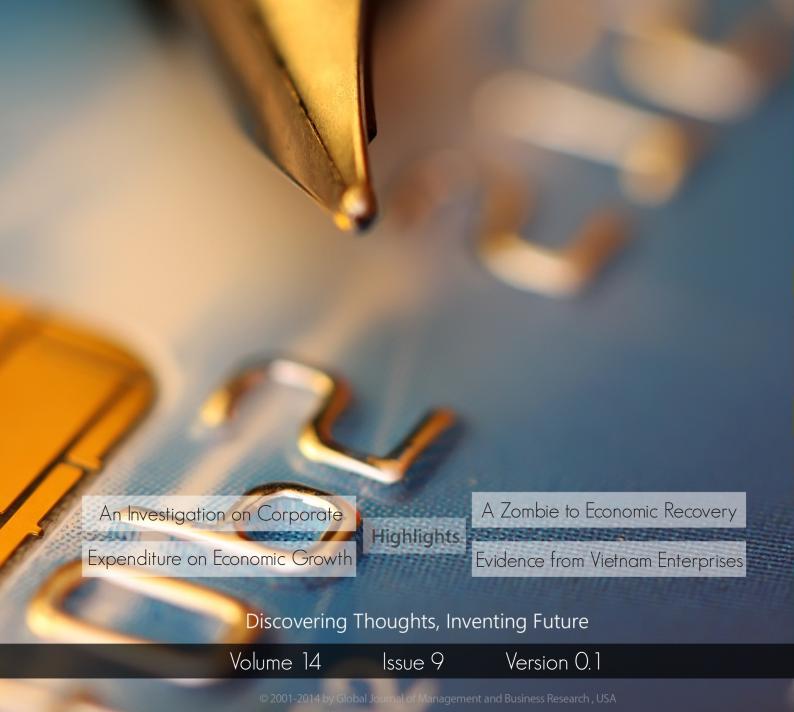
# GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: B

# Economics and Commerce





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



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# GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B ECONOMICS AND COMMERCE

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# The Zimbabwe Soaring Unemployment Rate of 85%: A Ticking Time Bomb not Only for Zimbabwe but the Entire Sadc Region (2014)

# By Dr. Silas Luthingo Rusvingo

Abstract- The mission in this Paper is to carry out a Literature Review and Research Methodology on the Zimbabwe unemployment rate of 85% which is a ticking time bomb not only in Zimbabwe but in the Sadc region as compared with its regional peers of Zambia to the north, South Africa to the south, Mozambique to the east and Botswana to the west of the country. The related and relevant Literature Review and the Research methodology to expose the Research Findings will take the Author to Mhlanga (2014) of Newsday whose contribution on the topic in this Paper is on youths spending time crushing stones to make a living as the job market in Zimbabwe crashes. The second respondent to give his contribution on the stratospheric unemployment rate in Zimbabwe is Nleya (2014) of Newsday. His contribution is on the promised 2,265 million jobs to be created by ZANU PF once voted into power in the 31 July 2013 harmonized elections. To make yet another contribution on soaring unemployment in Zimbabwe is Mawire (2014) of Newsday who argued that more people were turning to real estate to earn a living as unemployment soared to unbearable stratospheric levels in Zimbabwe.

Keywords: unemployment, bomb, sadc, zimbabwe.

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# The Zimbabwe Soaring Unemployment Rate of 85%: A Ticking Time Bomb not Only for Zimbabwe but the Entire Sadc Region (2014)

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Keywords: unemployment, bomb, sadc, zimbabwe.

With the Abstract and key words conveniently out of the way up next is the ignition key to the discourse, please don't go away before the Introduction coming your way in just a moment.

# Introduction

iven the heart-wrenching statistics in Table 1 below, the Introduction in this Paper is a good prospect to the beloved Reader. That Zimbabwe is a cursed country in a Sadc region of modest economic growth is an undeniable fact in a Sadc region of 4 purposively and judgementally sampled countries of Zambia to the North. South Africa to the south. Mozambique to the east and Botswana to the west.

Table 1: The unemployment rates in Zimbabwe and its 4 neighbouring regional peers of Zambia, South Africa, Botswana and Mozambique.

Country	Unemployment rate %	Source
Zimbabwe	85	Staff Reporter (2014)
Zambia	12	Staff Reporter (2014)
South Africa	25	Staff Reporter (2014)
Mozambique	17	Staff Reporter (2014)
Botswana	17,5	Staff Reporter (2014)

Zimbabwe has a whopping unemployment rate of 85% in a sample of Sadc countries with an average unemployment rate of 18% as in Table I above. What does that mean to you?

Zimbabwe is obviously in a planet of its own and miles away from its peers judged only in terms of the unemployment statistics given in Table 1 above. The next pertinent question to ask in order to solve the jigsaw puzzle is: Why only Zimbabwe is cursed and not South Africa, Zambia, Mozambique and Botswana who are all close neighbouring countries to Zimbabwe as far as the Sadc region is concerned. To provide an answer to this searching question is a statement on the related and relevant Literature Review and relevant and related Research Methodology which are coming your way in just a moment in case you decide to go away.

# STATEMENT ON THE RELATED AND Relevant Literature Review, the Relevant and Related Research METHODOLOGY AND THE DISCUSSION OF THE RESEARCH FINDINGS

In order to expose the Research Findings which the Author will employ to discuss and study, the Summary, Conclusion, and Recommendations a Literature Review and Research Methodology to expense and discuss the Research findings.

The first to confront the Author with his side of the story is Mhlanga (2014) of the Newsday who argued that many people in Zimbabwe are out of desperation forced to crush stones for a living as the job market in Zimbabwe crashes. Details on this coming your way in just a moment.

 a) Crushing stones for a living as job market crashes (Mhlanga 2014)

Mechanically and seemingly without feeling the burden of the hammer's weight a woman stone crusher pounds to the solid surface of hard quarry stone in an effort to break the rock into manageable pieces. The first strike yields no result and so does the second and third. But Musasa who had a baby strapped on her back was as stubborn as the rock that resisted her pounding and in equal measure it gave in and broke. She was just one of the many women who were earning a living from crushing rocks into quarry stones for sale to the construction industry which against all odds appeared to be flourishing while the Zimbabwean economy was no different from that story told by many poor and suffering Zimbabweans. The job market in Zimbabwe was shrinking each day while today's husbands were not as responsible as they ran away from their families soon after siring an offspring (Mhlanga 2014).

It is no secret that company closures and retrenchments in what was once known as the industrial hub of the Zimbabwean economy. Kwekwe to be precise, had forced thousands into illegal gold mining, flea market, vendoring and scavenging to eke a living. Gold panning is however not for the faint-hearted with the law enforcement agents, but only for the brave enough to risk life and limb everyday by remaining in the game which sometimes rewards very little. Illegal gold panners known as Makorokoza have been sent to prison- a mandatory 5 years for illegal possession of gold and 2 years for prospecting without license. Musasa's husband was doing jail time after being caught with five grams of gold without a license living his young wife to fend for herself and their three year-old son.

"I have been left with no choice but to ensure I put food on the table for myself and the child. My relatives are also struggling and they cannot help me", she said (Mhlanga 2014).

Joining the once lucrative gold panning industry is a complete no because she had seen and heard some of her husband's colleagues who are not in jail had been buried alive as they worked in unsafe mine shafts while others are maimed for life. These risks had led to a new craze in the hunt for the elusive US dollar-the hand crushing of stones to quarry for the construction industry. Quarrystones were now the new gold not only in Kwekwe but elsewhere around the country's major urban centres, sustaining over hundreds of families, who now rely on quarry-crushing which now provides an alternative to both employment and product. Spiwe Njanji (45) also sat on under a small tree crushing small stones into quarry with a four pound

hammer after Musasa's 14-pound hammer had done its bit. Njanji's left hand had missing finger nails wounds from the trade because as she crushed the quarry into three quarter pieces which are used for concrete mixture, her fingers without any protective clothing met the wrath of an angry hammer.

"I do not cry, it is the hazard of the trade. My son knowing that if I do not crush these stones I will be left with no money to pay rentals is medicine enough to heal the wounds", she averred.

Not far away is her three year old Tapiwanashe playing with his friends, some of them old enough to be in school but because of the hardships that their parents face owing to the economic meltdown they wonder aimlessly while their mothers concentrate on the work at hand (Mhlanga 2014).

Tapiwanashe had his eyes stitched after being hit by a flying piece of stone which had escaped the wrath of the hammer. His mother Musasa said she had to spend a few weeks away from work nursing her son at home but now she was back with her child to face the same vulnerabilities. Twelve wheelbarrow loads of what is known as three quarter quarry stones cost US\$120 and it takes an entire week for one person to crush and almost a month to get customers who are now scarce because of tight competition. They also sell by products like quarry dust which sells for \$1 for a 20 litre tin. Some of the stone crushers normally work in gangs with women saddled under some trees which divide shade against the harsh sun while a few men go up the little hills dotted in the suburbs to haul boulders down to the women (Mhlanga 2014).

John Maturo who led one such gang of mostly female members, said he lost his job when explosive manufacturing company Dyno Nobel collapsed and had failed to secure a job in the formal sector forcing him into crushing quarry for a living.

"I have five children, a wife and other siblings who need school fees, food and other basics like shelter and I have to provide for them", he said.

Rentals for a room in Mbizo, Kwekwe, range from US\$50 to US\$70 per month excluding utility bills while school fees at primary level in nearby schools attract US\$40 per term and US\$80 for secondary levels. Maturo said he would need over US\$300 a month to afford his close and extended families just the basics such as food and shelter accommodation. But Maturo is not alone as many people lost their jobs when sole ammonium nitrate fertilizer producer Sable Chemical embarked on voluntary retrenchment exercise aimed at streamlining operations at the loss making firm. Hundreds others will join the long list of unemployment from Zimasco following another offer of voluntary retrenchment as the mining company was also shedding jobs. Alice Levi a widow with children to look after laughs at suggestions that instead she should go

out there and hunt for a formal and safer job. She even feels sorry for people who report for formal work every single day saying even after toiling for a whole month some don't even get their salaries.

"A part from the fact that I don't have any academic qualifications I feel sorry for these who are formally employed because these days most companies are not paying, you work and get nothing at the end of the month" she added (Mhlanga 2014).

Tendai Yagondo who calls stone crushing the new women industry is a bitter woman because for a very long time she had participated in council, parliamentary and presidential elections as a voter yet none of the people she had voted into power seemed to remember her plight or even care to come and help the poor after getting into office.

"I won't stop voting though because the councillors have left us in peace doing our work. Nobody has come to stop us from doing our work and may be that is the reason I will be in queue to vote in the next elections" she said

Yagondo hoped that at least one day the government would fund them to ensure that they get machinery which will see them crushing stones in a healthy and safe environment.

"This business is lucrative because the construction sector is growing and we have clients everyday coming to buy from us. Things will only be better for us if government funds us so that we can get stone crushing equipment" she added (Mhlanga 2014)

Kwekwe Municipality Councillor Weston Masiya also believed that stone crushing was big business which should be supported to alleviate poverty.

"I can tell you that over a thousand of our people are supported by this business. You have those crushing the stone then some who transport and others who use quarry dust to mould bricks. These people after getting income from stone crushing then manage to pay their water bills" he said.

Council had deliberately turned a blind eye on the stone crushers who do not pay any operating licences to the local authority. Building inspectors had also allowed the use of homemade quarry stones for construction especially to the popular high density area. Through physical counting Newsday counted 95 individuals involved in stone crushing in Mbizo alone all with an average of six family members to look after (Mhlanga 2014).

Another 40 individuals who also had families benefiting from stone crushing 'industry' by using wheel barrows and man-powered scotch carts to transport the quarry stones at US\$30 per load depending on distance. Garikai Matutu who was constructing a house in Mbizo 15 said it would have been difficult for him to do his slab had it not been for the help of hand stone crushers.

'Their terms are flexible and you can negotiate the price unlike say buying from big companies who are by the way a distance from the construction site' he

Independence means little to them because they have remained stuck at the bottom of the food chain dangling and hoping one day the ruling ZANU PF party's much touted economic blueprint the Zimbabwe Agenda for Sustainable Socio-economic Transformation (Zim Asset) will also cascade to them. Sadly Vice President Joyce Mujuru dampened hopes of a quick fix to Zimbabwe's faltering economy through ZimAsset warning it could take a life time to achieve the programme's objectives. The ZANU PF government was under pressure to deliver on its election promises which include some 2 million new jobs at a time the economy is widely expected to be going south. A liquidity crisis that had held the economy back since dollarization in 2009 shows no signs of easing with cash-squeezed companies forced to shut down throwing hundreds into the already jobless heap (Mhlanga 2014).

Aware of the potentially explosive situation the government now has decided to dampen expectations.

"Five years is too soon to achieve the objectives of ZimAsset. It is the beginning of a lifetime and can take up to 30 or even 40 years" Her Excellence Vice-President Mujuru told a gathering in Victoria Falls in early June 2014.

After winning a new five year term in office in July 2013 ZANU PF launched ZimAsset-October 2013-December 2018- vaunting the plan as the curse for Zimbabwe's economic woes. So called quick wins under the five year programme were to be implemented between 2013 and 2015 whilst the second phase would cover the period 2016-2018 by which economic growth was expected to top 9.9%. But some hardly 10 months later i.e after the 31 July2013 vote it was clear for all to see that Zanu PF was in a tight corner by failing to stimulate the faltering economy, hence diversionary politics. Hence while some mothers enjoy the comfort of manicured finger nails and flowers from their children on Mother's Day this rare breed of women with no finger nails to talk about toiled like slavesto put food on their tables. It is really sad! (Mhlanga 2014)

The opposition MDC-T party did not take the disappointment of a high unemployment lying down. In case you wanted more details on the story, these arecoming your way in just a moment.

# b) Create Promised Jobs (Nleya 2014)

On 31 July 2014, exactly one year after the Zanu PF resounding victory in the 31 July 2013 vote MDC-T<sup>1</sup> youths defied the deployment of anti-police with water canon trucks and staged a demonstration demanding

<sup>&</sup>lt;sup>1</sup> MDC-T formed in 1999 is the main opposition party in the mainstream politics in Zimbabwe having resoundingly lost in the 31 July 2013 harmonised elections it was widely expected to resoundingly win.

His Excellence President Mugabe's Zanu-PF government to deliver on its 2013 election promises. The Zimbabwe Republic Police had deployed two canon water trucks on anti-police trucks and other police vehicles near Harvest House, the MDC-T headquarters in Harare (Nhleya 2014).

Police officers armed with truncheons had kept watch and vigil and monitored the protesting MDC-T youths. The MDC-T youths said yesterday marked the launch of a series of countrywide protests to force the government to deliver on the Zanu PF promise to create 2.2 million jobs (Nleya 2014)

Interim MDC-T national youth Chairperson Costa Machingauta told the opposition party supporters that a year after the 31 July 2013 elections government had failed to resolve the economic crisis in the country.

'The youths of Zimbabwe will not keep quiet anymore' Machingauta said (Nhleya 2014)

"They said they will give us 2 million jobs, so we are saying give us the promised jobs, we want a healthy living"

"The only solution we must provide is action if the South Africans can do it, what can fail us? The time is now no one will liberate us. They were young like us, oppressed like us. The time is now no one will liberate us. Mugabe stole our hope and we are angry" he said (Nhleya 2014)

Mawere (2014) of Newsday made a stunning revelation that many Zimbabweans were turning to "real estate" in the face of soaring unemployment. Details coming your way in just a second from now.

# c) More turn to real estate as unemployment soars (Mawere 2014)

Many Zimbabweans were turning to 'real estate' as hardships increased in the face of economic decline that have seen thousands of jobs lost in a space of time with no sign that the 2million jobs promised by ZANU PF in its 2013 elections' manifesto will ever come, jobless Zimbabweans are looking for all sorts of ways to survive. Many unemployed Zimbabweans including university graduates have turned to vending, selling all sorts of wares while some enterprising individuals have turned to their real estate business mostly without proper registration papers. The accommodation agents' business that had hit Harare did not come with risks and losses like vending where vendors had been forced to play cat and mouse with municipal police who confiscate their merchandise and also arrest them (Mawere 2014)

The agents charge various amounts of fees to home seekers ranging from US\$5 to US\$100. They insist on payment first before the home seekers can see the available houses. Amos Gudyanga who runs a typing and printing business and accommodation agents in the same office said low business had driven him onto real 'estate'.

"It's good business because the landlords call us and give us the houses to let out. We register home seekers for US\$1. So before we show them the available accommodation we are the middlemen between the landlords and home seekers.

Abgail Muteyiwa said the new accommodation agents were rippling off customers as they did not incur any costs in conducting their business.

"We appreciate that they are providing a service but some of their fees are out of this world."

Tsungai Dembeza concurred and said that some of the agents were charging too high and at times they did not deliver

"I paid US\$30 last month for a house to an agent but all the houses he had did not meet my requirements", she said (Mawere 2014).

A snap survey in Westlea by the Newsday showed that many of this kind of agents were making a killing just by showing home seekers potential accommodation. Merjury Takawira an agent said many people were opting for this line of business as it was easv.

'We charge US\$20 per room that we would have shown a tenant, but for a full house we charge US\$100' Takawira said. (Mawere 2014)

A recent report by the Poverty Reduction Forum Trust noted that many people were now opting for informal trade. Independent economists unemployment in Zimbabwe is above 90%. However, government statistical agency say unemployment rate is at 11% (Mawere 2014)[With the source of this being a government agency it is not surprising that the information given above is propaganda and not the truth]

Kwinika (2014) from Newsday argued in very strong language that the government should take the stratospheric unemployment rate in Zimbabwe very seriously. Let us give him audience as he prepares to give his presentation coming your way in just a second.

# d) Unemployment rate a ticking time bomb (Kwinika 2014)

According to Kwinika (2014) Zimbabwe educational symptom is the envy of many countries in Africa and beyond the African continent. The searching question that all Zimbabweans of average intelligence should ask the policy makers in Zimbabwe is: Is the country not sitting on a time bomb when every year universities and other institutions of higher learning churn out graduates in their thousands who have slim chances of getting employed? We can take pride in the celebrated achievements but for the country to have a litany of grumbling and unemployed graduates is not a good idea at all. What hope is there for any graduate to get a career job when companies are closing down and capacity utilization of our industries is shrinking day in

day out? When all these things are happening our Universities seem to be churning out more and more graduates to join the ranks of the unemployed. Are we not creating a time bomb by increasing enrolments at university when the labour market is bone dry? The people voted into power do not seem to have an answer to unemployment creation for years to come.

The country's labour market is tottering on the edge of a financial precipice. This is shattering so many dreams and aspirations. People should forget about the official and unofficial national statistics on the rate of unemployment in Zimbabwe and check the reality on the ground. If we buy newspapers and add the vacancies that appear in a month you will realise that they are just grains of sand in an ocean. So what is the solution? If the problem is caused by sanctions for how long should we sing the same song without getting an answer to the problem? It is a shame as a country when degreed people roam the streets joblessly all day and of everyday without hope of ever doing what they studied at University. Our education is slowly losing meaning for so many graduates. The challenges that Zimbabwe faced in implementing the Zisco steel deal makes people wonder if promises made by the Russians and Chinese will ever see the light of day. It is sad to see our country creating a world of highly educated zombies. After the dog eat dog factional and succession wars within the ruling ZANU PF party unemployment would still be there in front of our policy makers with a frozen gaze (Kwinika 2014).

So much about the relevant and related Literature Review and Research Methodology employed to expose and discuss the Research Findings as above. Up next is the Summary of the Paper coming your way in just a moment.

#### III. Summary

The ignition key to the discourse in this Paper is Table I giving a comparison of the unemployment rates as measured in Zimbabwe, Zambia, South Africa, Mozambique and Botswana. With 85% unemployment rate in the Sadc region Zimbabwe emerges the country with the highest unemployment rate in the region compared with the regional average of an unemployment rate of 18%. After this Table, comes a statement on the related and relevant Literature Review, Research Methodology and the discussion of the Research Findings exposed following the said Literature Review and the Research Methodology.

Mhlanga (2014) reports that many Zimbabweans are turning to stone crushing to earn a living as the job market crashes in the face of many companies closing shop because the liquidity crunch bedevilling commerce and industry since the announcement of a resounding ZANU PF election victory after the disputed 31 July 2013 harmonized elections.

According to a story reported by Nleya (2014) MDC-T youths in Harare take to the streets to demonstrate against the non delivery by ZANU PF of the promised 2.2 million jobs in the face of many companies closing shop to add to an already high unemployment rate in Zimbabwe.

Mawire (2014) reports that more Zimbabweans turn to real estate business as unemployment soars to stratospheric levels in the country.

And finally Kwinika (2014) argued that with so many university graduates roaming the streets jobless in a country with the highest unemployment rate in the Sadc region the question is what next. Kwinika (2014) warns of Zimbabwe sitting on a ticking time bomb and called on the country's authorities to address the country's unsustainable unemployment rate of 85%.

With the Summary of the Paper done and out of the way up next is the Conclusion of the Paper.

# IV. CONCLUSION

According to Rusvingo (2008), Kenkel (1994) defines a Research Hypothesis from which a Conclusion is derived as:

'A statement about the value that a parameter or group of parameters can take

According to Kenkel (1984:343):

'The purpose of the Research Hypothesis testing is to choose between two of the conflicting Research Hypotheses about the value of a population parameter or parameters. The two conflicting Research Hypotheses are the Null Research Hypothesis, denoted  $H_{\rm o}$  and the Alternative Research Hypothesis denoted,  $H_{\rm l}$ . These two Research Hypotheses are mutually exclusive so that when one is true the other one is false.

Therefore, the definitions of a Null Research Hypothesis,  $H_{\text{o}}$  and Alternative Research Hypothesis  $H_{\text{I}}$  are that:

'The Null Research Hypothesis  $H_o$ represents an assumption or statement that has been made about some characteristic (or parameter) of the population being studied. The Alternative Research Hypothesis,  $H_l$  specifies all possible values of the population parameter that were not mentioned in the Null Research Hypothesis  $(H_o)$ .'

Therefore for this Paper whose title is the Zimbabwe unemployment rate of 85% is a ticking time bomb not only in Zimbabwe but in the Sadc region (2014) the Null Research Hypothesis ( $H_0$ ) and the Alternative Research Hypothesis ( $H_1$ ) in respect of this Paper title or topic shall respectively be:

# H。

From a partisan and bureaucratic ZANU PF government perspective the unemployment rate in Zimbabwe is in a relentless southward march to stagnate at 11%. (Mawire 2014).

 $H_{l}$ 

From a non-partisan Independent economist perspective the unemployment rate in Zimbabwe is on a relentless northward march to stagnate at 90% (Mawire 2014).

Given the overwhelming evidence given in this Paper including the Summary which was loud and clear for all to see and hear the Alternative Research Hypothesis namely:

From a non-partisan Independent perspective the unemployment rate in Zimbabwe is on a relentless northward march to stagnate at 90% (Mawire 2014) is to be resoundingly accepted while the Null Research Hypothesis as articulated above is to be resoundingly rejected for lack of supporting evidence (Mawire 2014). With the exciting Conclusion of the study conveniently out of the way up next are the Recommendations of the study which are primarily designed to address what was not done right vis-à-vis the soaring unemployment rate in Zimbabwe. The Author promises another 'not to miss' part of this Paper. So please do not go away as more details on the exciting Recommendations coming your way in just a moment.

# V. RECOMMENDATIONS

Before the Author takes a somersault to address the Recommendation section of this Paper the pertinent question to ask himself is; What is it that Zimbabwe did not do right to create the problem of stratospheric unemployment which is out of sync with the Sadc norm of which Zimbabwe is very much an integral part.

Going back to basics will at least help solve the problem in a way that does full justice to both the offending ZANU PF government and the offended job seeker in Zimbabwe.

- As the genesis to its problems, Zimbabwe, unlike its regional peers such as South Africa and Mozambique, among others, has a horde of unattractive investment policies which are quite user-unfriendly to the foreign direct investors who come to do business in the Sadc region but do not look at Zimbabwe twice but concentrate on our regional peers like South Africa and Mozambique, to name just a few.
- The Table 2 below does not help the cause of Zimbabwe at all. Of the US\$10.4 billion brought to the four Sadc countries of Mozambique, South Africa, Zambia and Zimbabwe it was shared as below:

Table 2: Zimbabwe share of US\$10.4 billion of foreign direct investment brought to the four countries of Zimbabwe, Zambia, South Africa and Mozambique.

Country	Foreign Direct Investment in billions US\$	%	Ranking
Mozambique	5	48	1
South Africa	4	38	2
Zambia	1	10	3
Zimbabwe	0.4	4	4
Totals	10.4	100	

Source: Staff Reporter (2014)

The true but painful story from the data in Table 2 above paints a picture of doom and gloom for Zimbabwe. While Mozambique, South Africa and Zambia were with gold, silver, bronze, respectively as prize money Zimbabwe unashamedly walked away with a wooden spoon as prize money to confirm Zimbabwe was alone in the wilderness while Mozambique, South Africa and Zambia were on cloud nine with happiness and excitement for rich prize moneys thankfully received from the donor community.

- With her paltry 4% share of the US\$10.4 billion cake from the donor community Zimbabwe was soon to find herself quagmire in a serious liquidity crunch which gripped Zimbabwe like an Ebola outbreak. The liquidity crunch like Ebola spared no one except itself. The government, industry and commerce, banks and individuals were not spared in the Ebola outbreak.
- As a direct consequence of this humanitarian crisis which spared no one in its wake there was an unprecedented massive closure of companies countrywide resulting also in unprecedented job losses. Hence the stratospheric unemployment rate in Zimbabwe which is out of synchronisation with the Sadc norm. Period. Nothing more nothing less. And this liquidity crunch or crisis had been buffeting Zimbabwe left, right and centre since the ZANU PF resounding electoral victory in the 31 July 2013 harmonized vote.
- But another pertinent question that again begs an answer is: Why only after a resounding ZANU PF government victory announced after 31 July 2013? The answer from the Author is that it is all about the confidence that the foreign direct investors have in a ZANU PF government given its long history of acerbic and unattractive investment policies such as the yet to be finalised 14 year Fast Track Land Reform Programme of 2000 and the controversial Indigenisation and Economic empowerment programme of 2007, chief among others.
- To make matters worse for Zimbabwe which now looks more of a cursed country than any other in the Sadc region is that economy ye Zimbabwe yaa

nherera mwana asina vabereki pakapinda Amai mu politics dze Zimbabwe mwedzi wa Gunyana (meaning the trials and tribulations facing the comatose Zimbabwean economy now in its 14th economic meltdown have overshadowed if not worsened by the explosive factionaland succession wars to succeed the overstaying His Excellence President Mugabe. Since August 2014 vultures had been circling in the sky in anticipation of a blood bath sparked by these battles coming ahead of the 2 December 2014 elective congress. More casualities are anticipated and death relief companies like Doves and Moonlight funeral services should be on standby for more burial business during the month of December 2014 going forward).

With the heart shopping Recommendations now conveniently out of the way good customer care and hospitality demands that the Author gives the beloved Reader peace of mind after taking him/her through the rough ride terrain provided by the Literature Review and Research Methodology in this Paper from Introduction to Recommendation. In case you wanted to go away please wait until after the Key Assumption coming your way in just a moment.

## VI. KEY ASSUMPTION

In presenting the Paper to you the Author would, right from the outset, wish to reassure the beloved Reader through and through that all the facts and figures herein contained were stated as they are on the ground without fear, favour or prejudice. And the mission of this statement is to allay any fears by the Reader and to give him/her peaceof mind on the factual contents of this manuscript in the wake of the sombre and solemn atmosphere painted by the footprints of this manuscript.

Therefore, it is as obvious as the sun rises in the east sets in the west that Zimbabwe more than anybody is very much in need of prayers for not only the paralysed industry and commerce and the financial services sector but the multitude of University graduates not only roaming the streets unemployed but forced to do dehumanising menial jobs such as street vending etc. Coming your way in just a moment is this short prayer for Zimbabwe. And the Author<sup>2</sup> being a practising Christian will take the responsibility to lead the prayer for our beautiful country once touted as the bread basket of Africa but now reduced to a hopeless basket case through nothing else but bad governance by the Zanu PF party.

# VII. SHORT PRAYER FOR ZIMBABWE

Ngatinamatirei Zimbabwe nvika vedu yakaisvonaka samare. Mwari wamasimba ose vanorarama nokusingaperi tinokumbira kuti muyerise nekutonga mwoyo nemiviri yedu munzira dzedu nebasa nemitemo venyu kuti nemukuchengeta kwenyu, zvino narini tichengetedzwe mumuviri nemumweya, kubudikidza na Tenzi wedu Jesu Kristu. Amen.

(meaning Let us pray for Zimbabwe. Almighty Lord and everlasting God, we beseech you to direct, sanctify and govern both our hearts and bodies in the ways of your laws and the words of your commandments; that through your most mighty protection, both here and forever, we may be preserved in body and soul through our Lord and saviour Jesus Christ, who is alive and reigns with you; in the unity of the Holy Spirit, the God, now and forever) Amen (Pew Paper 2014).

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<sup>&</sup>lt;sup>2</sup> The Author Dr Silas Luthingo Rusvingo is a member of the Church of Province of Central Africa (CPCA), Avondale Parish Church, Diocese of Harare.

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# GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B ECONOMICS AND COMMERCE

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How Does Technology Diffusion Increase Speed of TFP Convergence at Firm Level? Exploring the Effects of High Technology Firms on Linkages: Evidence from Vietnam Enterprises

By Nguyen Khac Minh, Nguyen Viet Hung, Nguyen Viet Hwng & Tran Thi Thu Ha

National Economics University, Viet Nam

Abstract- The objective of this research is to give an explanation why low-technology enterprises can catch up with high-technology ones even when they are unable to invest in R&D. The answer is the existence of technology diffusion, however, how does technology diffusion take place and can we quantify this process? To answer this question, we structure variables which represent the transmission channel of technology diffusion from high-technology enterprises to low-technology ones, then quantifying impacts of technology diffusion and applying this methodology into the analysis of impacts of technology diffusion on total factory productivity (TFP) convergence of Vietnamese enterprises.

Keywords: technology diffusion, horizontal spillover, vertical spillover, TFP convergence, convergence under the technology diffusion.

GJMBR - B Classification : JEL Code : D92



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# How Does Technology Diffusion Increase Speed of TFP Convergence at Firm Level? Exploring the Effects of High Technology Firms on Linkages: Evidence from Vietnam Enterprises

Nguyen Khac Minh a, Nguyen Viet Hung s, Nguyen Viet Hwng & Tran Thi Thu Ha

Abstract- The objective of this research is to give an explanation why low-technology enterprises can catch up with high-technology ones even when they are unable to invest in R&D. The answer is the existence of technology diffusion, however, how does technology diffusion take place and can we quantify this process? To answer this question, we structure variables which represent the transmission channel of technology diffusion from high-technology enterprises to low-technology ones, then quantifying impacts of technology diffusion and applying this methodology into the analysis of impacts of technology diffusion on total factory productivity (TFP) convergence of Vietnamese enterprises. We establish two TFP series in accordance with the methods developed by Olley-Pakes [7] and extended by Levinsohn and Petrin [5]. On the basis of two constructed TFP series, we estimate the unconditional convergence model and the convergence model under the effects of technology diffusion. The estimation results of two models show that the impacts of technology diffusion occur complicatedly but the total effect of the variables representing for impacts of technology diffusion on TFP convergence is positive and the speed of convergence in the model including the variables of technology diffusion is faster than one in the model excluding this variables.

Keywords: technology diffusion, horizontal spillover, vertical spillover, TFP convergence, convergence under the technology diffusion.

# I. Introduction

here have been a lot of researches exploring the productivity convergence among countries at both the national level and the firm-level. The results, however, are not consistent with each other, and in many cases they are opposite to each other. Bernard and Jones [1], for instance, could not find any evidence of the convergence in manufacturing industry. Others acquire results supporting for the convergence in countries which have low-productivity at the first stage of development but quickly grow in the subsequent periods. Nishimura et al. [6] provides evidences of

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productivity convergence among Japanese enterprises. Pascual et al. [8] study the productivity convergence in manufacturing-processing industry in Europe. They analyze in detail sub-industries which belong to the manufacturing-processing industry to comparison amona industries having similar characteristics of technology. They find out that in some industries, there exists a productivity convergence while in others as well as the whole manufacturing-procession industries, there does not exist a productivity convergence. Their results put an emphasis on the importance of making a comparison among industries having similar technologies when we analyze the productivity convergence. Minh et al. [9] studies effects of FDI spillover on efficiency convergence of Vietnamese manufacturing enterprises. They employ the dynamic input-output (I-O) tables to construct the structure of relationship between domestic and FDI enterprises through spillover effects of FDI enterprises on domestic ones. Using the data of Vietnamese manufacturing industry in the period 2000-2011, they point out the positive effects of FDI spillover on the efficiency convergence of manufacturing enterprises. However, one issue arising here is that why productivity (or technical efficiency) convergence is so important. One reason is that the technology spillover behind the productivity convergence process can opportunities for low-technology enterprises to catch up with high technology ones, even when they could not invest into R&D or purchase new technologies due to high investment cost, especially for new market-comers and small and medium enterprises. The recent researches show that the R&D spillover is one important explanatory variable for convergence. For one nation which has international trade of goods and services, investment, exchange of information and knowledge, firms' productivity would depend on its own R&D as well as others' R&D because technology spillover is not restricted by geographical boundaries. Technology is the root cause of long-term economic growth. The economic performance of one nation has a strong relationship with the capacity of inventing new knowledge and applying these knowledge as well as the

ones invented by other nations. This research would answer the question how technological knowledge spillovers from advance-technology enterprises to lowtechnology one, and how we can quantify this spillover

This research is structured into five sections. The next one will present the methodology framework including models measuring total factor productivity to estimate TFP; constructing convergence model; and integrate transmission channels of technology progress into the convergence model. The third section provides data and estimation results. The conclusions would be in section 4.

#### THE METHODOLOGY FRAMEWORK II.

## a) Measurement of total factor Productivity

To construct the convergence model from TFP series estimated from a unified dataset by two different methods, we will briefly present the methodology basis of the Olley-Pakes method, in which investment is used as a controlling variable. The second method is quite similar, except using the intermediate input as a controlling variable.

The efficiency estimates at the firm-level in this research are attained by using Olley and Pakes method. This method has been developed to point out the possibly simultaneous bias when estimates production function. This can be illustrated by examining logarithm version of Cobb-Douglas function below (at point of time t for firm i):

$$LnY_t = \beta_0 + \beta_l \ln L_t + \beta_k LnK_t + \beta_t LnI_t + \omega_t + \eta_t$$
 (1)

In which,  $Y_t$  is denoted for output,  $L_t$  for labor and K<sub>t</sub> for capital, I<sub>t</sub> for intermediate inputs.

The individual error component of firm  $\omega_b$  and error component follows i.i.d  $\eta_t$  The component  $\eta_t$  has no determinant impact on firms' decisions. The productivity component,  $\omega_h$  is assumed to be unobservable in the eyes of econometrists, but firms' managers have information, and this component has impact on the rule of making decision in the firm. The simultaneity problem arises when there simultaneous correlation, both within firm i and between periods t, between  $\varepsilon_t$  and inputs of firms in separate series of firms. To show the simultaneity problem, OP employs investment as a representative for latent productivity that is serially correlated. The investment function, therefore, can be rewritten as follows:

$$i_t = i_t(\omega_t, k_t)$$

In order to take positive value for investment, i,  $=i_t(\omega_t, k_t)$  is converted to inverse function to get  $\omega_t$  as a function of capital and investment  $\omega_t = (i_t, k_t)$ . To facilitate the analysis, we denote:  $y_t = lnY_t$ ,  $l_t = lnL_t$ ,  $k_t = lnK_t$  and  $i_t = lnI_t$ . Then, the first equation gives use the output as a function of observable variables:

$$y_t = \beta_l l_t + \beta_k k_t + \beta_t l_t + \varphi_t (i_t, k_t) + \eta_t,$$
 (2)

in which,  $(i_t, k_t) = \beta_0 + \beta_k k_t + \varphi_t (i_t, k_t)$ . The robust estimates of input variables can be attained by using the semi-parametric estimation. Assuming  $\omega_t$  following firstorder Markov and capital does not instantaneously respond to creativeness in productivity - in which invention in productivity can be defined as follows:

$$\xi_t = \omega_t - E[\omega_t | \omega_{t-1}]. \tag{3}$$

With this assumption, the robust estimates of  $\beta_{\nu}$ can be derived from estimation of this function:

$$y_t^* = y_t - l_t \beta_l - \beta_l i_t = \beta_0 + \beta_k k_t + E \int \omega_t |\omega_{t-1}| + \eta_t^*$$
 (4)

in which,  $\boldsymbol{y}_{t}^{\star}$  is the net output after eliminating the contribution of labor and  $\eta_t^* = \xi_t + \eta_t$ . Because the result of the first stage is one estimate of  $\omega_t$  - one robust estimate of  $E[\omega_t/\omega_{t-1}]$  which can be obtained, and the estimates of the equation (3) give us the robust estimate of  $\beta_k$ . Total factor productivity (TFP) of firm i in year t is:

$$tfp_{it} = y_{it} - \hat{\boldsymbol{\beta}}_{l}l_{it} - \hat{\boldsymbol{\beta}}_{l}i_{t} - \hat{\boldsymbol{\beta}}_{k}k_{it}$$
 (5)

in which,  $tfp_{it}$  is the logarithm of TFP (InTFP)  $\hat{\beta}_s$  and the appropriate indicators are estimates of parameters attained from production function estimation.

# The Role of Technology Spillover in Convergence

This section is to answer this question: "How does technology diffusion from high-tech to low-tech firms take place?" We would construct several channels through which high-tech firms can have impact on productivity and productivity convergence of low-tech ones. Herein, we structure channels allowing horizontal and vertical technological spillovers.

To implement this task, we need give some assumptions at first:

- 1. Assumption 1: There is the relationship between firms' technology and productivity. It means that technology and productivity (TFP) of any firm have a strongly positive correlation (high-tech firm has high (TFP) productivity).
- 2. Assumption 2: Firm i is called a high-tech one in year t if this firm has TFP being double or more than the average TFP of that industry in the same year.

We use LH<sub>it</sub> as a variable capturing the existence of firm i which has advance technology in the industry under consideration in year t, and J is a set of firms having advance technology:

$$LH_{it} = 1 \text{ if } i \in J \text{ and } LH_{it} = 0 \text{ if } i \notin J$$
 (6)

The horizontal technology spillover variable LHh;, tells us the extent of participation of high-tech firms in that industry and it can be measured by the weight of actual output of high-tech ones in total output of the whole industry:

$$LHh_{it} = \frac{LH_{it} * X_{it}}{\sum_{i=1}^{n} X_{jt}}$$
 (7)

In which, Xit is the real output of firm i, n is the number of firms in questions.

The variable  $LHb_{it}$  measures the backward spillover effect, exhibiting the extent of participation of high-tech firms in the downstream industry: therefore, it reflects the linkages between low-tech suppliers and high-tech clients. So, we can measure  $LHb_{it}$ follows:

$$LHb_{jt} = \sum_{k \text{ if } k \neq j} \gamma_{jkt} * LHh_{kt}$$
 (8)

In which,  $\gamma_{ikt}$  is the ratio of output of industry j selling to industry k in the period t. The values of  $\gamma$  can be computed from I-O table. When computing  $\gamma$ , we eliminate firms' inputs sold within the industry  $(k \neq j)$ because this component has already been captured by  $LHh_{l_t}$ . We can avoid the endogeneity problem by using the ratio of output sold to downstream industry k with a certain level existence of foreign firms  $LHh_{kt}$  . In a similar way, we can define the forward spillover variable LHf<sub>it</sub> as follows:

$$LHf_{jt} = \sum_{l \text{ if } l \neq j} \delta_{jlt} * LHh_{lt}$$
 (9)

Herein, I-O table provides us  $\delta_{ilt}$ , the ratio of inputs of industry j purchased from the upstream industry I. Inputs purchased within the intra-industry (I ≠ j) are also eliminated because these are already captured by LHh.

The model of productivity convergence among firms The simple model of productivity convergence developed by Bernard and Jones [1] has been widely used in researches of cross-country productivity convergence. This is the basis for the model of longterm average productivity growth convergence (TFP) as a function of the initial productivity, and we can specify the general model as follows:

$$\Delta \ln TFP_{i,final} = \frac{1}{T} \left( \ln TFP_{i,final} - \ln TFP_{i,initial} \right) = \beta_0 + \beta_1 \ln TFP_{i,initial} + u_i$$
(10)

In which, T shows the length of the period, final denoted for the final year, initial for the initial year (in this sample, the initial year is 2000 while the final year is 2012). The catching-up variable can be exhibited by a negative value of the coefficient  $\beta_1 = -\{1 - (1 - \lambda)^T\}/T$ . We assume that  $u_{it} \sim N(0, \sigma)$ . The convergence model (10) can be applied for two TFP series computed from two distinctive methods on the same dataset. Therefor, we would two types of model to estimate convergence: model (10.1) is the model 10 in which TFP (denoted by pm) can be estimated by using Levinshon-Petrin procedure while model (10.2) is the model 10 in which TFP (denoted by pi) would be estimated by using Olley-Pakes procedure.

The impact evaluation model of technology spillover on TFP convergence

The impact evaluation model of technology spillover can be specified as follows:

$$\Delta \ln TFP_{iT} = \frac{1}{T} [\ln TFP_{i,final} - \ln TFP_{i,initial}] = \alpha + \beta \ln TFP_{i,initial} + \sum_{t=2000}^{2012} \delta_t LH_{jt}$$

$$+ \sum_{t=2000}^{2012} \gamma_t LHh_{jt} + \sum_{t=2000}^{2012} \chi_t LHb_{jt} + \sum_{t=2000}^{2012} \chi_t LHf_{jt} + \mu_{iT}$$
(11)

The convergence model (11) can be applied for two TFP series computed by using two different methods on the same dataset. Therefor, we would have two types of model to estimate convergence under impacts of technological spillover: model (11.1) is the model 1 in which TFP (denoted by pm) can be estimated by using Levinshon-Petrin procedure while model (11.2) is the model 11 in which TFP (denoted by pi) would be estimated by using Olley-Pakes procedure.

#### **EMPIRICAL RESULTS** III.

a) Data

The micro-data basis is derived from annual business survey undertaken by General Statistical Office (GSO) from 2000 to 2012. This research employs all firms from all industries including cultivation, animal husbandry, mining, manufacturing and service industries, however, these firms must be available in all thirteen years of GSO surveys.

The main information of firms includes type of firm, field of business, number of labors (the average number in the year), assets, capital allowance, fixed

assets, labor's earnings, salary and bonus and social security contribution, financial obligations, profits (in term of VND million).

Inputs and outputs are corrected for inflation. This research uses balanced panel data, including all firms appearing in 13 years from 2000 to 2012. We eliminate firms whose age, revenue, assets, and labor do not take positive values. In this research, the added value is used to estimate total factor productivity. However, these data are not available and must be indirectly computed from other related indicators. The dataset consists of 10767 observations for each year and the whole sample period is 13 years. These observations are categorized into three sectors, namely:

- Sector 1 consists of firms in the agricultural, forestry, fishery and mining industries, calling *mining* industry.
- Sector 2 consists of firms in the manufacturing industry such as food processing, garment and textiles, shoe & leather, wooden, paper, chemical, rubber, plastic, non-metal, metal, machinery production, wooden furniture and recycling industries, calling *manufacturing industry*.
- Sector 3 consists of other industries such as construction. transportation, and telecommunication, banking and finance... and they are called as service industry.

So, corresponding to models (10) defined above, we have the following cases:

Model (10.1T) is the model (10.1) applied for the whole sample dataset; model (10.1K) is the model (10.1) applied for dataset of mining industry; model (10.1C) is the model (10.1) applied for dataset of manufacturing industry; model (10.1D) is the model (10.1) applied for dataset of service industry.

Corresponding to models (11) defined above, we have the following cases:

Model (11.1T) is the model (11.1) applied for the whole sample dataset; model (11.1K) is the model (11.1) applied for dataset of mining industry; model (11.1C) is the model (11.1) applied for dataset of manufacturing industry; model (11.1D) is the model (11.1) applied for dataset of service industry.

## Testing assumptions of Olley-Pakes approach

Before continuing our discussion about estimation of parameters of production function by OP method, we must test if the main assumptions of OP approach are satisfied, i.e. if investment monotonically increases with respect to TFP measured using strictly positive investment observations. We estimate the fixed effect model at the firm level, in which logarithm of investment and TFP and year dummy variable are used as explanatory variables and would be adjusted for group of any variables at the four-digit industry code. The estimate of logarithm of TFP ranges from 0,7 to 0,8 for the whole sample and sectors, statistically significant at 1%. The estimate implies that a 1% shock of TFP at firm-level will cause investment to increase by 0,7-0,8% in the whole sample. Thereby, with the given dataset of considered firms, using OP approach to estimate production function is an appropriate method.

# c) The unconditional convergence

Table 1 records estimation results of models (10.1) and (10.2). These results are derived from OLS regression. To compute the speed of convergence, we firstly estimate  $\beta$ , then computing  $\lambda$  based on the following formula:  $\beta_1 = -\{1 - (1 - \lambda)^T\}/T$ . The estimated coefficients have expected sign and are highly statistically significant.

Table 1: Estimation results of two groups of unconditional convergence models.

	D	Dependent variable dInpm				Dependent variable: dlnpi			
Model	10.1T	10.1K	10.1C	10.1D	10.2 T	10.2 K	10.2 C	10.2.D	
Constant	0,0807***	0,1008***	0.0565***	.0902***	0,0722***	0,1007***	0.0523***	0.0796***	
	(0,0025)	(0,0101)	(0.0045)	(0.0031)	(0,0021)	(0,0100)	(0.0038)	(0.0025)	
β	-0,047*** (0,0012)	-0,057*** (0,0047)	0367*** (0,0019)	-0,0521*** (0,0015)	-0,051*** (0,0011)	-0,057*** (0,0047)	-0,0406*** (0.0523)	-0,0559*** (0.0015)	
$R^2$	0,1299	0,2400	0,2113	0,1368	0,1560	0,2113	0,1208	0,1634	
	0,1298	0,2370	0,2099	0,1367	0,1559	0,2099	0,1205	0,1632	
No. obs.	10767	3185	547	7035	10767	3185	547	7035	
F-statistics	1606,76	348,32	146,03	1114,38	1989,96	437,40	146,03	1373,21	
	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)	(0,0000)	(0,000)	
Speed of convergence (%)	6,7	8,96	4,7	7,73	7,55	8,96	5,38	8,67	
Half-life time	14,27	11,81	18,54	12,95	13,16	11,81	16,72	12,05	

Source: the author estimates from business surveys of GSO

We can draw out two comments from the estimation results given in Table 1. Firstly, in both two groups of models, we can see a clear evidence for productivity convergence. However, the speed of

convergence in cases is slightly different. The speed of convergence attained from models (10.1T), (10.1K), (10.1C) and (10.1D) are correspondingly 6,7%;8,96% ;4,7% and 7,73%. Meanwhile, the speed of convergence

obtained from models (10.2T), (10.2K), (10.2C) and (10.2D) are respectively 7,55%; 8,96%; 5,38% and 8,67%. Thereby, the speed of convergence computed from the group (10.2) are higher than ones from the group (10.1), except the case of models 10.1K and 10.2K which have a same speed at 8,96%. Secondly, the speed of convergence is higher than one obtained in the research at the nation-level. For instance, while Dorwick and Nguyen [2] reports the result of speed of convergence cross countries being around 2.5% annually, our results collected from both models 10.1 and 10.2 point out that the speed of convergence does not exceed 9%. On the other hand, these results are lower than ones provided by Nishimura et al. [6].

# d) Impacts of technology spillover on convergence

The estimation results of two unconditional convergence models (10.1) and (10.2) prove there exists productivity convergence among firms in three sectors in Vietnam. In this section, we examine convergence under the impact of technological spillover. The estimation results of models (11.1) and (11.2) are provided in Table 2 and 3. Because results from unconditional and conditional models using two estimated productivity series by Levinshon- Petrin and Olley-Pakes algorithms tend to have the same direction and are nearly indifferent, therefore, we put focus on making a comparison impacts of technology spillover between unconditional model and conditional one using estimated productivity series by using Levinshon- Petrin algorithm. Comparing impacts of technology spillover between unconditional model and the conditional one using Olley - Pakes gives us a similar result. Table 2 gives us impacts of technology spillover on firms in three sectors, in which estimated productivity series are based on Levinshon- Petrin algorithm.

Table 2: Impacts of technology spillover on convergence in the model with dependent variable being dlnpm.

	(11.1T)	(11.1K)	(11.1C)	(11.1D)
Dlnpm	Coef.	Coef.	Coef.	Coef.
Lnpm	-0.0512***	-0.0608***	-0.0428***	-0.0572***
•	(0.0012)	(0.0047)	(0.0020)	(0.0016)
LH2001	-0.0126	-0.1110*	,	,
	(0.0107)	(0.0618)		
LHh2001	0.0204			
	(0.0150)			
Lhb2001	-0.1691	6.7889***	3657*	3256*
	(0.1344)	(1.9386)	(.1991)	(.1766)
LH2002	0.0385**		.0286	.0696**
	(0.0187)		(.0270)	(.0279)
LHh2002	0.0336**	1156**	.0411	.0803***
	(0.0159)	(.0530)	(.0329)	(.0208)
LHb2002		-1.238**	3145***	.2071**
		(.5623)	(.1139)	(.1051)
LHf2002	-1.581***	4.9953***	6765	-2.5973***
	(0.3037)	(1.8458)	(.5016)	(.4700)
LH2003	0.0471***	,	.0521***	
	(0.0146)		(.0163)	
LHh2003	-0.0058*			
	(0.0034)			
Lhb2003	-0.0276**			
	(0.0123)			
Lhf2003	-0.0339***			0737***
	(0.0079)			(.0101)
LH2004	-0.0018	0909	.0375*	0021*
	(0.0012)	(.0789)	(.0219)	(.0012)
LHh2004	·		.0667**	·
			(.0302)	
Lhb2004	-0.0474	-1.0480**	.24996***	
	(0.0456	(.4159)	(.0731)	
Lhf2004	0.0533	-2.2548***	.0553	4658**
	(0.0387)	(.6674)	(.0445)	(.1864)
LHh2005	-0.00001	.23671***	00008**	·
	(6.28e-06)	(.0843)	(.00004)	
Lhb2005	0.0331***	1974***	.0396***	
	(0.0103)	(.0661)	(.0102)	
LH2006	0.0356**	.13625	.0308	.0443*

	(0.0151)	(.1029)	(.0206)	(.0254)
LHh2006	(0.0101)	(.1020)	(.0200)	.0021*
LI 1112000				
L I-I- 000C	0.0700		4500	(.0011)
Lhb2006	-0.0788		1568	1931***
	(0.0617)		(.1048)	(.0726)
Lhf2006	-0.2347**		.1097	8500***
	(0.0759)		(.1131)	(.1282)
LHh2007			.0064***	
			(.0020)	
Lhb2007			.0355**	
			(.0169)	
LH2008	.0373***		(.0100)	.0832***
Li 12000				
1111 0000	(.0140)	0005		(.0199)
LHh2008	0071	0885		0114
	(.0062)	(.05691)		(.0075)
Lhb2008	.2039***	8207*		.1271*
	(.0589)	(.4846)		(.0717)
Lhf2008	0668	8434***	1516	,
	(.0475)	(.3169)	(.0993)	
LH2009	(.0170)	.1163	.0185	0166
L112009				
1111 2222		(.0937)	(.0175)	(.0104)
LHh2009		.3428***		
		(.1271)		
Lhb2009	0411***		0261*	.0417
	(.0121)		(.0152)	(.0282)
Lhf2009	/	.0904**	,	
		(.0402)		
LH2010	.0166*	2163	.0179*	
LH2010				
1111 2212	(.0092)	(.1577)	(.0107)	
LHh2010		.1507**	.6489*	
		(.0743)	(.3700)	
Lhb2010	1802***			3026***
	(.0468)			(.1129)
Lhf2010	.9184***	2.0739***		1.0739***
21112010	(.1600)	(.5532)		(.2518)
LH2011	.0508***	(.0002)	.0531***	(.2010)
LHZUII				
	(.0091)		(.0137)	
Lhb2011	1051**		1480	
	(.0442)		(.1129)	
Lhf2011	.0548**		.0941***	
	(.0278)		(.0340)	
LH2012	.0053***	.3029**	.0288	.0055***
	(.0016)	(.1195)	(.0241)	(.0016)
LHh2012	.0022***	(.1130)	(.0241)	.0014**
LITIZUTZ				
111.0010	(.0007)	0.400	00774	(.0007)
Lhb2012	.0471***	.0496	.0277**	
	(.0069)	(.0307)	(.0128)	
Lhf2012	.0202		.0473	.0342***
	(.0160)		(.0434)	(.0090)
cons	.1190***	.1173***	.0580***	.1595***
	(.0049)	(.0221)	(.0108)	(.0063)
Speed of convergence				
	7.53	10.04	5.78	9.02
(%)	10.10	11.05	45.04	70
Half-life time	13.18	11.05	15.84	11.76

Source: the author estimates from business surveys of GSO

From estimation results in table 2, we have following comments. The value of  $\beta$  coefficient estimated from convergence model under the impact of technology spillover variable is negative and highly statistically significant.

Most of coefficients of technology spillover in all three models are statistically significant at 1%-10%, however, their sign are different in models.

The sign of LH variable in 2001 is negative but not highly significant. It is also negative in 2003 and significant at 5%. In 2004, it is negative but insignificant while it is positive in 2010 and significant at 10%. In 2002 and 2006, it is positive and significant at 5% while it is positive and significant at 1% in 2003, 2008, 2011, and 2012. The total impact of this coefficient is positive and statistically significant. This can explain that the technology spillover from high-tech to low-tech firms is significant.

The sign of variables Lhh, Lhb and Lhf are opposite to each other depending on the year we consider. This can be explained as follows. The horizontal technology spillover (Lhh) implies the spillover from high-tech firm to low-tech firm in the same industry. There are two main channels for this transmission: the mobility of trained labors in high-tech firm and technology imitation (positive Lhh). The presence of high-tech firms also stimulates competitiveness in the market. The stronger competitiveness will force low-tech firms to either apply high technology, new management method, or employ the existing resources more efficiently, and this is also an important channel for horizontal spillover (positive Lhh). However, none of these impacts must be positive. The movement of labor market can generate a negative spillover effects such as brain drain from low-tech to high-tech firm putting a harmful effect on productivity in low-tech firm, or paying higher wage without requiring an improvement in productivity due to the higher wage in high-tech firms. The high-tech firms can prevent costs concerned with high technology leakage from happening by restricting technology transfer or keeping know-how in secret. These policies apparently hinder opportunities for

horizontal spillover through performance impact. Higher productivity in high-tech firms can put the downward pressure on the price or lower demand for products of low-tech firms (negative Lhh). If low-tech firms could not adapt with more fierce competition and raise the productivity, they could not only lag behind but also be kicked out of business due to the existence of high-tech firms.

The vertical spillover is the backward spillover from high-tech firms to low-tech firms in the upstream industries (positive Lhb). Even in the case that high-tech firms try to minimize the technology leakage to low-tech firms in the same industry (horizontal impact), they still want to support their suppliers (low-tech one) in order to help them provide good quality input and high-tech firms can benefit from this outcome (positive Lhb). In other words, if high-tech firms decide to purchase inputs from low-tech ones (possibly due to location), they can transfer technology to low-tech firms which provide them with inputs, and stimulate the spread of technology to the upstream industries to break the stagnation (positive Lhb). The impact of backward linkages also can be harmful for low-tech firms (negative Lhb).

The forward spillover (Lhf) is from high-tech firms to low-tech ones in the downstream industries. The availability of better inputs from high-tech firms can raise the productivity of firms using these inputs (positive Lhf). However, inputs produced by high-tech firms are usually more expensive and less appropriate for requirements of low-tech firms (negative Lhf). In this case, there would be a negative spillover.

Table 3: A comparison of speed of convergence between unconditional convergence model and convergence model under the impact of technology spillover.

Model	Uncondition	nal converge	ence model		Conditional convergence model under the impact of technology spillover			
	10.1 T	10.1 K	10.1C	10.1 D	12.1 T	12.1 K	12.1C	12.1 D
β	-0.047***	-0.057***	0367***	-0.052***	-0.051***	-0.061***	-0.043***	-0.057***
Speed of convergenc e		8.96	4.7	7.73	7.53	10.04	5.78	9.02
A half-life time	14.27	11.81	18.54	12.95	13.18	11.05	15.84	11.76

Source: the author estimates from business surveys of GSO

Despite complexity of these effects, however, the total impact of technology spillover is positive. This can be shown by a comparison of results in table 3. It shows a strong evidence for impacts of technology spillover on productivity convergence among firms in all three sectors (because of negative  $\beta$  and highly statistically significant). This once again confirms the positive impacts of technology spillover. It can be proved by the higher absolute values of coefficient  $\beta$  in all three models taking technology spillover into consideration. The empirical evidence is shown in the table 3.

e) A comparison of estimation of convergence under the impact of technology spillover between model (11.1) and (11.2)

This section compares the estimation results from two models: the versions (11.1) and (11.2) of conditional convergence model. The estimation results of model (11.1) are given in table 2 while the ones of model (11.2) are given in table 4 below.

Table 4: Impact of technology spillover on convergence in the model with dlnpi as the dependent variable (The conditional convergence model)

Independent	(11.2T)	(11.2K)	(11.2C)	(11.2D)
variable\Model	Coefficient	Coefficient	Coefficient	Coefficient
Lnpi	0548***	0628***	0466***	0605***
·	(.0012)	(.0044)	(.0020)	(.0015)
LH2001	0115	0958*		
	(.0099)	(.0569)		
LHh2001	.0182			
	(.0139)			
Lhb2001	1659	6.3036***	3708**	3496**
	(.1242)	(1.7804)	(.1824)	(.1639)
LH2002	.0405**		.0297	.0700***
	(.0173)		(.0247)	(.0259)
LHh2002	.0275*	1033**	.03443	.0712***
	(.0147)	(.0487)	(.0302)	(.0193)
Lhb2002		-1.0190**	2900***	.2447**
		(.5163)	(.1044)	(.0975)
Lhf2002	-1.776***	4.9552***	6599	-2.3787***
	(.2807)	(1.6954)	(.4598)	(.4364)
LH2003	.0442***		.0488***	
	(.0135)		(.01496)	
LHh2003	0047			
	(.0031)			
Lhb2003	0234**			
	(.0114)			
Lhf2003	0278***			0645***
	(.0074)			(.0097)
LH2004	0015	0895	.0356*	0017
	(.0011)	(.0725)	(.0201)	(.0012)
LHh2004	,	/	.0616**	3601**
			(.0278)	(.1730)
Lhb2004	0323	-1.0229***	.2344***	/
	(.0422)	(.3819)	(.0670)	
Lhf2004	.0594*	-2.0947***	.0544	
	(.0358)	(.6129)	(.0407)	
LHh2005	00001*	.2268***	00007*	
	(5.81e-06)	(.0774)	(.00004)	
Lhb2005	.0278***	1797***	.0355***	
	(.0095)	(.0606)	(.0094)	
LH2006	.0332**	.11887	.0295	.0410*
	(.0141)	(.0946)	(.0189)	(.0235)
LHh2006	, ,	, ,	, ,	.0017*
				(.0010)
Lhb2006	0625		1381	1672**
	(.0570)		(.0961)	(.0674)
Lhf2006	21081***		.1138	8021***
	(.0702)		(.1036)	(.1190)
LHh2007	, ,		.0059***	, ,
			(.0018)	
Lhb2007			.0322**	
			(.0155)	
LH2008	.03473***	0734	, ,	
	(.01298)	(.0522)		
LHh2008	0073	, ,		.0750***
	(.0057)			(.0185)
LHh2008	, ,			0114
				(.0070)
Lhf2008				.1358**
				(.0666)

Lhb2008	.1743***	7266		
	(.0545)	(.4453)		
Lhf2008	0583	8140***	1326	
	(.0439)	(.2907)	(.0910)	
Lhb2009	0402***	.1043		
	(.0112)	(.0860)		
LHh2009		.31365**	.0177	0120
		(.1167)	(.0160)	(.0096)
Lhb2009			0250*	.0314
			(.0139)	(.0262)
Lhf2009		.0858**		
		(.0369)		
LH2010	.01574*	2087	.01572	
	(.0085)	(.1448)	(.0098)	
LHh2010		.14643**		
		(.0682)		
Lhb2010	1745***			3142***
	(.0432)			(.1048)
Lhf2010	.8599***	1.9524***	.6414*	.8879***
	(.1477)	(.5079)	(.3392)	(.2338)
LH2011	.0475***		.0492***	
	(.0084)		(.0126)	
Lhb2011	0811**		1103	
	(.0409)		(.1035)	
Lhf2011	.0422		.0815***	
	(.0258)		(.0311)	
LH2012	.0051***	.2836***	.0290	.0052
	(.0015)	(.1097)	(.0221)	(.0015)
LHh2012	.0021***			.0014**
	(.0006)			(.0007)
Lhb2012	.0432***	.0451	.0241**	.0342***
	(.0064)	(.0282)	(.0118)	(.0084)
Lhf2012	.02425		.0426	
	(.01481)		(.0398)	
_cons	.1048***	.0971***	.0517***	.1399***
	(.0044)	(.0199)	(.0097)	(.0056)
Speed of convergence (%)	8,39	10,67	6,53	9,95
Half-life time	12,3	10,69	14,52	11,11

Source: the author estimates from business surveys of GSO

From estimation results given in table 4, we can draw out same conclusions as what we have got in table 2. The coefficient  $\beta$  is estimated from the conditional convergence model under the impact of technology spillover are all negative and highly statistically significant. Most of coefficients of the technology

spillover variable are statistically significant at 1%-10%, however, their signs vary across models. Other analyses are similar what we present above. This section is about to make a comparison of speed of convergence between two models (11.1) and (11.2). The results can be summarized in table 5 below.

Table 5: A comparison of speed of convergence between models of conditional convergence under the impact of technology spillover.

Model	Convergence model under the impact of technology spillover (11.1)					l under the pillover (11.		
	11.1 T	11.1 K	11.1 C	11.1 D	11.2 T	11.2 K	11.2C	11.2 D
Coefficient β	- 0.051***	- 0.061***	- 0.043***	- 0.057***	- 0.055***	- 0.063***	- 0.047***	- 0.061***
Speed of convergence	7.53	10.04	5.78	9.02	8.39	10.67	6.53	9.95
Half-life time	13.18	11.05	15.84	11.76	12.3	10.69	14.52	11.11

Source: the author estimates from business surveys of GSO

Following the definition given above, model (11.1) is the one in which TFP (denoted pm) is estimated by using *Levinshon-Petrin* procedure while model (11.2) is the one in which TFP (denoted pi) is estimated by using Olley-Pakes procedure. The results in table 5 show that the speed of convergence of convergence model under the impact of technology spillover estimated by using *Levinshon-Petrin* procedure is slightly smaller than one derived from Olley-Pakes procedure. This implies that these approaches can be substituted for each other.

We come to the general comments as follows. The above results show that speed of convergence when taking technology spillover into consideration is larger than the case without taking this effect into consideration. Besides, the speed of convergence at the firm-level is larger than one at the nation-level. Theoretically, we can see that the spillover of technological knowledge among firms within one nation is quicker than one across nations due to "national" boundaries effect". The technology spillover behind productivity convergence can create opportunities for lagging firms to catch up with leading ones. If there does not exist technological spillover, lagging firms could not catch up with leading ones if they do not invest into R&D or purchase new technologies, patents, and costs of these investments are huge for new-market comers or small and medium firms.

However, we should notice that a quick technology spillover also can create its own problem. If this can be done easily, then no firms have incentive to invest into R&D. However, our results show that the process of technology spillover does not occur immediately but takes a quite long time to take place. Thereby, the advantage of technology of leading firms can be maintained in a certain period of time, and this can help firms have incentive to introduce more advance technology.

# IV. Conclusions

This paper empirically studies impacts of technology spillover on convergence among firms in three sectors of the economy: (i) agricultural, forestry, and fishery industry, (ii) manufacturing industry, and (iii) services. The results are summarized as follows. Firstly, we employ the semi-parametric method to estimate TFP. A TFP series is estimated by using Levinshon-Petrin method and the second one is estimated by using Olley-Pakes method. Using dynamic I-O table (2005-2007), we construct channels of technology spillover in the horizontal and vertical dimensions and combining them with convergence model. Using two TFP series and variables of technological spillover, we examine two groups of convergence models. On the basic of specified convergence model, we estimate the group of unconditional convergence model and conditional convergence one (the condition of technological spillover). The estimation results show that the impacts of technology spillover in two dimensions- horizontal and vertical- are quite complicated, depending on type of model and the studied period. There is not one-way impact on speed of convergence, i.e. they have both positive and negative impacts. However, the estimation results show that the technology spillover significantly raise the speed of convergence among firms in all three sectors of the economy. The evidence is that the speed of convergence of the conditional convergence model (with technology spillover variables) is faster than unconditional convergence one (without technology spillover variables).

The explanation of the role of technology spillover in the convergence process is very meaningful for policy-makers. To induce the development and progress, not only the technological innovation but also technology spillover are very important sources of productivity growth. Along with policies to foster technological innovation, however, we also should emphasize the importance of technological spillover, thanks to which firms need not create new technologies themselves. The combination of technological innovation and spillover would allow us to more efficiently employ our resources in the process of developing all sectors of the whole economy.

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# The Rolling Blackouts in Zimbabwe: A Zombie to Economic Recovery Prospects (2013 – 2014)

By Dr. Silas Luthingo Rusvingo

Introduction- According to senior officials in the Energy sector, energy starved Zimbabwe will suffer longer and more frequent power shortages for the next 10 years. The country's power utility will extend power blackouts until it can boost capacity. Patson Mbiriri, Secretary for Energy and Power Development told an annual congress of the Confederation of Zimbabwe Industries (CZI) in Nyanga recently, 'By about 2022 is when the country will be able to generate enough electricity for domestic and industrial needs,' said Mbiriri. Zimbabwe needs about 2200 megawatts of electricity at peak consumption but generates just below 1300 megawatts, while relying on imports to fill the gap (Staff Reporter 2014).

Due to ageing equipment, power generation is often disrupted following breakdowns. In most cases, the generators operate below capacity. In recent months Zimbabwe could only afford to import 25 megawatts from neighbouring countries after major electricity suppliers in the region turned off the switches over non payment of dues.

Keywords: rolling, blackouts, zimbabwe, zombie and economic recovery prospects.

GJMBR - B Classification : JEL Code : N10



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With incessant power blackouts in Zimbabwe appearing a real zombie to economic recovery the primary objective in this Paper is to carry out a survey to measure the intensity of the problem. Following the the Summary, Conclusion Recommendations to address the problem in order to increase the prospects of economic recovery now in its 14<sup>th</sup> vear of recession.

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#### Ĭ Introduction

ccording to senior officials in the Energy sector, energy starved Zimbabwe will suffer longer and more frequent power shortages for the next 10 years. The country's power utility will extend power blackouts until it can boost capacity. Patson Mbiriri, Secretary for Energy and Power Development told an annual congress of the Confederation of Zimbabwe Industries (CZI) in Nyanga recently, 'By about 2022 is when the country will be able to generate enough electricity for domestic and industrial needs,' said Mbiriri. Zimbabwe needs about 2200 megawatts of electricity at peak consumption but generates just below 1300 megawatts, while relying on imports to fill the gap (Staff Reporter 2014).

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"Most of our woes in terms of blackouts will end in 2015" Mbiriri said.

The then energy minister Honourable Elton Mangoma said Zimbabwe had whittled its debt to power providers to under US\$20 million from around US\$100 million in a bid to resume power imports. There were plans to revamp the Northern Kariba hydro power station and the Hwange Ethanol power station in the West of the country.

So much about the ignition to the discourse in this Paper laid before you. Up next is a statement on the logistics to carry out a survey to expose the Research

Findings. In case you go away details on the said statement coming your way in just a moment.

# Statement on the Related and Relevant Literature Review. Research METHODOLOGY AND RESEARCH FINDINGS

In order to achieve the required Research Findings in this study the Author made a hasty retreat to the private media where he made a strategic stopover to study the various inputs on the said topic of this Paper to come up with what the Author believed was the relevant and related Literature which exposed the Research findings to underpin the study.

Zano (2014) of the Newsday argued that the genesis of our power problems in Zimbabwe are more to do with unfair distribution of power by Zimbabwe Electricity Authority (ZESA) and nothing else. Let us hear him give his contribution. More details on this contribution in just a moment.

# a) ZESA must distribute supply power fairly (Zano

Zano (2014) did not mince his words when he presented his disappointing performance by ZESA. It is disheartening that ZESA holdings is dismally failing to fairly distribute and supply its power to its valued customers. High density suburbs in Harare like Glen View, Glen Norah, Budiriro and Highfields had been victims of the power Company spending days and nights without electricity. Sadly the norm by ZESA is that electricity will be switched on at night around 10 pm and switched off around 5 am. What boggles the mind is that 10 pm is normally after demand peak period (6 - 8)when valued ZESA customers are doing most of their cooking for the day. But the sad reality is that the power is switched off by ZESA. Come 5 o'clock in the morning the power is switched off when people are waking up for the day to prepare their breakfast and warm water for ablution in readiness to go for work. But sadly the power is nowhere to be seen (Zano 2014).

January 2013, Zimbabwe Electricity Transmission and Distribution Company (ZETDC), a subsidiary of ZESA Holdings embarked on a comprehensive replacement of all conventional postpaid meters with pre-paid meters. Currently ZETDC had installed prepaid meters in most suburbs countrywide. As consumers, people thought they would finally heave sighs of relief after the power utility's on-going

installation of these pre-paid metres. Sadly the bad load shedding problem had actually worsened when every consumer expected an improvement. People had thought that since winter was over the rate at which people would be utilising their electricity would also be reduced, thereby minimising load shedding. Load shedding had a number of negative impacts both on the nation's economy and social life of citizens (Zano 2014).

However, the economic costs of load shedding are well known compared to the societal effects. Load shedding can affect a country's economy mainly because it slows down industrialisation and affects people's life styles. During the daytime, it affects commercial and industrial operations. In the evening load shedding can also affect students' studies. What about the people's electrical gadgets? Schools third term in Zimbabwe means examination time. students prefer reading at night as the temperatures will be cooler compared to daytime. It is so surprising that some places in the country never experience such disturbing load shedding timetables. It is indeed upsetting to see a location very close to your home with electricity almost every day while it's a complete blackout in your area. ZESA should take note of these incidents and start to distribute its electricity fairly. All consumers whether poor, rich, black, white or yellow need fair treatment from ZESA. For the much hyped ZimAsset to be fully implemented ZESA should play its part effectively. It is fundamentally true that electricity is the back bone of each industrialised society and economy. Previous reports had it that this power company is exporting electricity to neighbouring countries during the night time. As understanding citizens, people including the Author, also thought that positive idea would lesson load shedding as the extra revenue generated from exporting electricity during off peak hours would then be used to produce more electricity, which in the case of Zimbabwe is not the case. Why it is like that? Somebody somewhere is playing God with the people of Zimbabwe (Zano 2014). Dai Mwari maramba (meaning may God forbid?).

Madanhire of Newsday again convincingly argued that incessant power blackouts as is the norm in Zimbabwe pose a big challenge to economic recovery, let alone to a comatose Zimbabwe economy. In a feel good contribution to the topic under active discussion in this Paper the Author argues the audience should never go away until Madanhire's informative contribution on this burning issue is over. More details on this coming your way in just a moment.

# b) Blackouts Pose Biggest Challenge to Economic Recovery (Madanhire 2014)

It is no secret that the Zimbabwean economy is under siege from a host of internal and external factors, a small percentage of which is beyond human control. However it is the internal factors such as incessant

power cuts, policy discordance, political rhetoric and corruption that tend to militate against all efforts aimed at economic recovery more than the external factors or forces. The erratic power supplies have been experienced since the beginning of September 2014. If left unchecked they are sure to spell a death knell to the local industry and further push the comatose economy further down the drain. Domestic consumers have also been caught in the crossfire and are now forced to adjust to unscheduled power cuts and run for hours if not days on end without supplies from the perennially bungling ZESA. There is no doubt that the current power shortages have raised the ire of consumers who after paying heavily for electricity in prepaid tokens, find themselves digging deeper into their shallow pockets to buy gas, paraffin, firewood and even the dangerous candles to power their homes. So the perennially bungling power utility should not take offence when consumers demand an explanation to the current incessant power cuts. In fact the power utility should practise good corporate customer care and corporate customer relations and take the initiative to keep its consumers aware of any developments affecting the power sector. Industry, regardless of whether large, medium or small scale, formal or informal, has been the main victim, forcing many to switch to expensive power from standby generators (Madanire 2014).

By its very nature, power from diesel or petrol powered generators is only supposed to be an interim or emergency measure, because if it is allowed to run full time, it tends to erode envisaged profits. Relying on standby generators to run industry should not be accepted as the norm in a country striving to jumpstart an ailing economy because of the energy sources prohibitive costs. But from the looks of things use of generators seems to have become a norm instead of an exception. The cause given by the authorities in the troubled energy sector that the current power shortages were due to planned maintenance work and diversion of some 200 or so megawatts to power winter wheat cropping is not convincing enough considering that most winter wheat is being or has already been harvested. The only plausible explanation for the current power utility was that it was caught flat footed after it failed to invest in alternative energy sources when it became clear that the demand for power would keep rising. The people at ZESA should have been pro active and invested heavily in alternative energy sources such as solar, biogas, methane gas and wind to cater for domestic consumption and dedicate the national grid to power the manufacturing and other high energy consumer sectors. Government should stop labouring us with energy policy documents that do not translate into workable programmes. The ZANU PF government's economic blueprint policy, ZimAsset, risks turning into another Paper tiger if problems bedevilling the energy sector are not addressed urgently as they have a

bearing on the envisaged economic turnaround strategies (Madanire 2014).

Anon (2014) is a perfect example of a consumer who is bitterly incensed by the incessant power cuts by the perennially bungling ZESA. Please do not go away before he makes his sabre rattling contribution coming your way in just a moment.

# c) ZESA losing millions in load shedding (Anon 2014)

The intensifying but unexplained load shedding all over the country by the perennially bungling Zimbabwe Electricity Supply Authority (renamed Zimbabwe Electricity Sometimes Available) is losing us millions in United States dollars. Is it noticeable that this chaotic and merciless load shedding situation facing Zimbabwe only intensified immediately at the appointment of the new board chaired by Herbert Murerwa. As it turns out now, an improvement in Zimbabwe's energy situation was obviously too much to expect from an ex-Minister who is not only well versed with complex energy matters but well past his sell – by date to be appointed to be ZESA Board chairman. It boggles the mind what business model, if at all, ZESA is now using to generate its revenue. The now good for nothing parastatal only recently intensified the supply and fixing of prepaid meters in all the households. companies and institutions and after that as consumers, we find ourselves with our money tied up in a product or service which is suddenly not there because of unscheduled and selective load shedding (Anon 2014).

Amazingly in Zimbabwe you find that one section of an area whether residential or industrial can still have the luxury of having their light on during broad daylight while another one just across the road can have no electricity for up to 19 hours a day. After the installation of a prepaid meter at a certain house in Harare, the average power consumption was calculated to be \$20 a week, but with the intensified load shedding people had witnessed in the past months in 2014, that same amount of electricity worth is sitting unconsumed in the meter for two weeks. The simple book-keeping calculations tells us that this adds up to a loss of revenue to ZESA from an expected revenue of US\$100 to US\$52 a month (Anon 2014).

So far so good about the rough and rocky terrain provided by the related and relevant Literature Review and Research Methodology, adopted for the study in this Paper. Up next is the Summary, the details of which are coming your way in just a moment.

#### III. Summary

The ignition key to the discourse in this Paper kicks off with a heart-wrenching revelation by Permanent Secretary in the Energy Ministry Pattison Mbiriri that Zimbabwe had to grapple with power shortages up until 2022 when the country is projected to have enough of its energy supply. Currently the disheartening power

supply and demand statistics for Zimbabwe are a demand of 2 200 megawatts against a meagre power supply of 1 300 megawatts to throw a frightening power deficit of 900 megawatts to be imported from neighbouring SADC countries such as South Africa and Mozambique who have a surplus power supply. But sadly for Zimbabwe the militating factor is the required liquidity to finance that power import some of whom have been suspended for non payment.

After this ignition to the discourse came the Statement of the relevant and related Literature Review and relevant Research Methodology adopted to expose the required Research findings for discussion and interpretation in this Paper.

The first to attack the power utility was Zano (2014). His weight of attack centred on the unfair distribution of electricity in which he complained that a street across the road may have the luxury of having electricity 24/7 while the neighbour across the road may go for 19 hours without electricity to rue the day he/she was ever born a Zimbabwean.

The second to attack the power utility yet again was Madanhire (2014). His weight of attack was the adverse effect that incessant power blackouts was going to have on the prospects of economic recovery for the country. Internal factors more than the external factors did the most damage to the prospects of economic recovery. And those that readily come to mind are incessant power cuts, policy discordance, political rhetoric and unpunished corruption at senior level in both the private and public sectors of the Zimbabwean economy. Madanhire (2014) further argued that the current power shortages had raised the ire of many consumers who after paying heavily for electricity in prepaid tokens but find themselves paying more to buy gas, paraffin, firewood and even the dangerous candles to power their unpowered homes.

The third and final contribution in the then ongoing discourse on incessant power cuts countrywide was Anon (2014). His argument is that for the entire period that the power utility is in a power blackout, the revenue generation capacity of the financially hamstrung power utility is at a standstill to mean that the revenue loss could be as high as 50%.

The long and short of it is that things are not looking good for ZESA in terms of revenue generation, customer care and customer satisfaction. Thereafter with the summary out of the way what remains undone which is up next is the Conclusion. Please don't go away in case you miss the Conclusion coming your way in just a moment.

## Conclusion

According to Rusvingo (2008) Kenkel (1984) defines a Research Hypothesis from which a Conclusion is derived as:

'A statement about the value that a parameter or group of parameters can take.

# According to Kenkel (1984:343);

'The purpose of a Research Hypothesis testing is to choose between two conflicting Research Hypotheses about the value of a population parameter. The two conflicting Research Hypotheses are denoted as the Null Research Hypothesis denoted H<sub>o</sub> and the Alternative Research Hypothesis denoted H<sub>I</sub>. These two Research hypotheses are mutually exclusive so that when one is true, the other one is false.

Therefore the definitions of a Null Research Hypothesis H<sub>o</sub> and an Alternative Research Hypothesis, H<sub>1</sub> are that:

'The Null Research Hypothesis represents an assumption or statement that has been made about some characteristics (or parameter) of the population being studied. The Alternative Research Hypothesis specifies all possible values of the population parameter that were not mentioned in the Null Research Hypothesis (H<sub>o</sub>).

Therefore for this Paper whose title is 'Incessant power blackouts: A Zombie to the prospects of economic recovery (2014) the Null Research Hypothesis (H<sub>o</sub>) in respect of the aforementioned title or topic of this Paper shall respectively be:

# H<sub>o</sub>

Incessant power cuts in Zimbabwe are not a zombie to the prospects of economic recovery.

# H,

Incessant power cuts in Zimbabwe are a zombie to the prospects of economic recovery.

Given the overwhelming evidence as given elsewhere in this Paper including the Summary above which is again loud and clear for all to see the Alternative Research Hypothesis namely: Incessant power cuts in Zimbabwe are a zombie to the prospects of economic recovery is to be resoundingly accepted while the Null Research Hypothesis as articulated above is to be resoundingly rejected in light of the overwhelming evidence which is pre the Alternative Research Hypothesis while at the same time overwhelmingly anti the Null Research Hypothesis.

With the exciting Conclusion of the study conveniently out of the way up next are the Recommendations which are primarily designed to address what was not done right vis-à-vis the issue of the incessant power cuts in Zimbabwe. So details on this coming your way in just a moment.

#### RECOMMENDATIONS V.

Before the the Author addresses Recommendations section of this Paper the question to ask himself is what it is that Zimbabwe did not do right to create the problem of a shortage of electricity?

From the Author's perspective the genesis of the problem of why Zimbabwe as a country has a shortage of electricity is because of the low foreign direct investment (fdi) inflows into the country. Zimbabwe needs foreign direct investment to address the underlisted:

- The ageing equipment at most power stations in the country are in need of a massive injection of capital to replace them to avoid constant breakdowns of power generating equipment to normalise power supplied in the country.
- To attract fdi Zimbabwe needs to put in place policies that attract foreign direct investors. The yet to be finalised Land Reform Programme of 2000 the Indigenisation and Economic Empowerment law of 2007, to name just a few are not attractive to foreign direct investment where foreign 'direct investors' are required to be minority shareholders in a 51/49 investment share model in favour of the locals where the country's regional peers such as South Africa and Mozambique, to name just a few have no such xenophobic laws on their statutes.
- Zimbabwe's diplomatic relations with the West<sup>1</sup> does not inspire confidence. The frequent use of public fora a such as the United Nations General Assembly and EU-Africa to name, just a few, to throw brickbats at Britain and United States of America is deplorable on the part of His Excellence President Mugabe. The two super powers have emerged to become the prefects of this modern world of increasing complexity. They are the custodians of the foreign direct investment for which Zimbabwe is in desperate need as testified by her extensively damaged and destroyed infrastructure. For Zimbabwe, without fdi there is no infrastructure development.

All said and done about what should be done right in Zimbabwe time is now opportune to make a statement about the key assumption to reassure the beloved Reader that everything in this Paper is above board for transparency, accountability and probity.

# KEY ASSUMPTION

In presenting this Paper the Author would, right from the outset, wish to reassure the beloved Reader that all the facts and figures herein contained were stated as they are on the ground without fear, favour or prejudice. And the mission of this statement is to make sure the factual contents of this manuscript are that they are above board and beyond reproach.

The rough ride through the incessant power cuts in Zimbabwe to impede the prospects of economic

<sup>&</sup>lt;sup>1</sup> West as used in this context refers to the United States of America, European Union, Canada, Australia and New Zealand.

recovery to the nation of 13 million citizens is certainly in need of a prayer for Zimbabwe to close the discourse in Consequently and in conformity with this Paper. Christian tradition the Author<sup>2</sup>, a Christian by religion will shoulder the responsibility to pray for Zimbabwe and so please do not go away before the prayer for Zimbabwe coming your way in just a moment.

#### THE SHORT PRAYER FOR ZIMBABWE VII. (PEW PAPER 2014)

Ngatinamatei. munesimba Mwari musingagumi, imi makatipa netsitsi mbesa dzepasi munguva yadzo: Tinokutendai nekuzvirereka pamusana kwekunaka kwenyu kukuru, tichikutendai kuti mutipe girasiya rokudzisevenzesa nokufanira kumbiri yenyu, nerokubatsira vanoshaya nerokunyaradzwa kwedu: nokuna Jesu Kristu Tenzi wedu. Amen.

(meaning, Let us pray. Eternal God you crown the year with your goodness and you give us the fruits of the earth in their season: grant that we may use them to your glory for the relief of those in need and for our own well being: through Jesus Christ our Lord. Amen).

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<sup>&</sup>lt;sup>2</sup> The Author, Dr Silas Luthingo Rusvingo is a member of the church of the Province of Central Africa (CPCA), Anglican Church, Avondale Parish, Diocese of Harare.

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### Impact of Defense Expenditure on Economic Growth: Time Series Evidence from Pakistan

#### By Amjad Ali & Muhammad Ather

Karakoram International University, Pakistan

Abstract- This paper investigates the impact of defense burden on economic growth in Pakistan economy over the period 1980-2013. A three equations model is estimated through two stage least square (2SLS) method in order to investigate the direct and indirect impact of defense burden on economic growth. The findings of the model show that defense expenditure directly as well as indirectly retard economic growth in Pakistan.

Keywords: defense expenditure, economic growth, 2SLS, Pakistan.

GJMBR - B Classification : JEL Code : O47, H30, E62, E21



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# Impact of Defense Expenditure on Economic Growth: Time Series Evidence from Pakistan

Amjad Ali a & Muhammad Ather a

Abstract- This paper investigates the impact of defense burden on economic growth in Pakistan economy over the period 1980-2013. A three equations model is estimated through two stage least square (2SLS) method in order to investigate the direct and indirect impact of defense burden on economic growth. The findings of the model show that defense expenditure directly as well as indirectly retard economic growth in Pakistan.

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#### I. Introduction

efense spending is one of the major concerns of developing as well as developed countries because a lion share of their budget is absorbed by defense sector. Literature shows that the effect of defense spending on economic growth is an important and controversial topic among the researchers. Pakistan spends a huge part of its expenditure on defense sector in order to maintain a credible level of security due to its vital geopolitical position and a long run outstanding dispute over territory of Kashmir with India as Pakistan has fought three major wars with India. In every year Pakistan has to set aside a big portion of its total expenditure for defense sector. Military expenditure is thus thought to be one the major components of total expenditure in Pakistan. Generally it is perceived that low economic growth in Pakistan is due to huge military expenditure and the supporters of this preposition are of view that increase in military expenditure reduces resources for other productive sectors like education, development projects etc. and hence ultimately low economic growth. However, defense sector can also have the potential to support the economic development whiling country generating employment opportunities for the unemployed people. In order to investigate the impact of defense expenditure on economic growth in Pakistan, this paper explores the empirical relationship between defense expenditure and economic growth by taking time series data for the period 1980 to 2013.

The organization of the paper is as follow: section 2 reviews the empirical literature on the subject, section 3 elaborates the theoretical discussion, section 4 discusses the model specification, section 5 shows

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empirical results of the model and section 6 explains the conclusion of the paper.

#### II. LITERATURE REVIEW

Conventionally it is believed that defense expenditure is inversely related to development due to its high opportunity cost in term of productive expenditure. Benoit conducted the first ever study regarding the relationship between defense and growth for 44 developing countries for the time period 1950-1965. The findings of Benoit's study show that there is significant cross position correlation between expenditure and economic growth i.e. defense helps development. Benoit was of the view that high defense expenditure leads to high economic growth through the channel of aggregate demand i.e. if initial demand is inadequate as compare to potential supply then increase in defense spending may increase aggregate demand and thus has positive impact on growth.

The Benoit's result of positive correlation between defense spending and economic growth initiated a series of books, articles and papers to reanalysis this relationship. Degar and Smith (1983) investigate the relationship between military expenditure and economic growth in 50 less developed countries by estimating a macroeconomic model of cross sectional observation for the time period from 1965 to 1975. The findings of their study show that military spending has a small positive effect on growth through modernization channel and larger negative effect through saving channel. They show that the negative saving effect outweigh the positive modernized effect the net effect of military spending on economic growth is negative.

A similar study is also done by Degar (1986). Degar critically evaluated the Benoit's findings and investigated the inter-relationships among defense; saving and economic growth for a sample of 50 less developed countries for the time period from 1965 to 1973. Using the three stage OLS estimation technique the results of the study show that defense expenditure significantly depresses the saving which leads to retard growth and development and therefore, the correlation between defense expenditure and economic development is negative which is the opposite of Benoit's result.

However, the above studies are conducted for a group of countries; Chan (1988) investigated the

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relationship between defense burden and economic growth for a single country (Taiwan) for the time period 1961-1985. He discussed three models; modernization model, the capital formation model and the export-let growth model through which defense burden may affect economic growth. Using GLS method, the results of the study show that modernization effect did not play a significant role in raising the economic growth which is contradicted to Benoit's result. The results of capital formation model and export-let model show that capital formation is curtailed by defense spending and also defense spending has adverse impact on export competitiveness.

It is conventional wisdom that there is trade-off between military spending and non-military spending. However it does not tell us about the pattern of trade-off between these variables. Russett (1982) estimated a model for America to show the trade off pattern of military spending on one hand and education and health on the other for the time period 1941 to 1979. Applying OLS estimation technique, the findings of the study show that there is no systematic trade-off pattern between military spending and expenditure on education and health nor military spending significantly depress education and health.

All the above studies are conducted on the implicit assumption that defense expenditure is incurred prior to economic growth. However, these studies are silent regarding the causality that may exist between defense expenditure and economic growth. Chowdhury (1991) investigated the casual relationship between expenditure and economic development. In order to show the direction and presence of causality the Granger causality tests are used on annual time series data for 55 less developed countries. The results of the study show that the correlation between defense and economic growth is positive for some countries and is negative for other countries. So this correlation cannot be generalized across countries due to the difference in socio-economic structure and the type of government in each of these countries.

Different studies have conducted with different channels to analysis the impact of defense burden on economic development for different countries. Lindex (1992) derived a two sector growth model to analysis the effect of military burden and government expenditure on the growth of GNP in selected Middle East countries for the period 1974 to 1985. By using GLS, the findings of the paper show that the impact of military burden on the growth of GNP is negative whereas the government size is positive related to the growth of GNP.

Blomber and Brock (1996) studied the effect of defense spending and political instability on growth for a sample of 70 countries for the period from 1967 to 1982. Using OLS and GLS, the findings of the paper show that increase in political instability do decrease growth while increase in defense expenditure does decrease political instability. However the results explain that increase in defense expenditure has a direct negative effect on growth but not significantly.

Khilji and Mehmood (1997) analyzed the impact of military expenditure on economic growth and other major economic variables in Pakistan for the period from 1972 to 1995. By using annual data set of time series, they applied Granger causality test on the four equations model. The findings of the study show that there is bi-directional feedback between defense burden and GDP growth. Their results explain that defense burden is negatively related to GDP growth, growth of non-defense output, investment ratio and tax revenue. However, the findings of four equation model did not reflect the degree of interdependence that may exist between these variables. So results derived from such models may be misleading. Therefore, they specified three equations model which explains GDP growth, average propensity to save and defense ratio. In single equation estimation of saving ratio and defense burden, the results show that the saving ratio is positively affected by defense burden and negatively by the inflation rate and they also show that Pakistan defense burden is negatively affected by Indian defense burden and positively by government budget.

#### THEORETICAL DISCUSSION III.

There are many channels through which defense expenditure may affect growth. Researchers normally identify three main mechanisms through which defense burden influence economic growth which are: (a) spin-off effects (b) resources allocation and (c) creation of new resources.

First, if aggregated demand is initially inadequate as compared to potential supply, then the additional demand generated by defense sector may be productive by utilizing the capital stock and generating employment opportunities for unemployed persons. This increased productive demand has not only short-run multiplier effect but also there is possibility of long run growth effect. In this way defense expenditure may have positive effect on growth. (Deger 1986). There is also modernization effect of military effect. The military personnel may engage in R & D, provide technical skills, educational training, and medical care and introduce to new technology (Benoit 1973). Second, military expenditure may affect growth through resources allocation. Military expenditure has opportunity cost in term of forgone investment i.e. increase in military expenditure will reduce available funds for investment reduces investment and hence regard growth. The final way in which defense may influence growth is through the creation of new resources. Military expenditure is inflationary in aggregated vlagus constrained economies and this may lead to rise in profitability that

induces higher investment and hence growth. However, the expectation of continuing inflation might cause consumption to increase and saving to decrease. This decreased in saving will lead to low investment and hence little chance of growth potential.

The above mentioned channels show that military expenditure has direct as well as indirect effect on growth. The direct impact of defense spending on growth through the spin-off and reallocation of resources and the indirect impact of defense on growth is through the creation of new resources. The direct impact of military expenditure can be captured by the co-efficient of military expenditure in growth equation and the resources creation effect of military expenditure can be captured by the co-efficient of military expenditure in saving equation on the assumption that the national saving ratio can be taken to be reliable indicator of resources available to the economy.

#### THE MODEL IV.

The above mentioned mechanisms show that in order to capture the impact of military expenditure on economic growth there should be at least three equations for growth, saving and military expenditure. The proposed growth equation is:

$$g = f(m, y, n)$$

The growth equation, the output growth (g) is made to depend on the military expenditure (m), per capita GDP (y) and population growth rate (n). The coefficient of military expenditure is ambiguous, depending on the relative size of spin-off and reallocation of resources effects of defense. The coefficient of percapita income (y) is expected to affect output growth positively or negatively. The growth rate of population (n) is expected to be positively affecting growth as it can be used as a proxy for labor forces increase and saving is also expected to have positive impact on economic growth.

The proposed saving equation is:

In the above equation the military expenditure (m) is meant to capture the role of military in creating of new resources. Due to the possibility of inflationary consequence of military expenditure on the creation of new resources, the coefficient of the military expenditure can be positive or negative. The impact of growth on saving is also taken into account and expected to have a positive sign of its coefficient.

The proposed military expenditure equation is:

$$m = m(nge, g)$$

As just to reverse of growth equation where the impact of military expenditure on growth is measured, in this equation the impact of growth (g) on military expenditure is measure and the expected sign of coefficient of growth can be positive or negative. The effect non-military government expenditure (nge) on defense spending is are also shown in the equation in order to show their correlation. So, the complete model is given by the following three equations:

$$g_t = \alpha_0 + \alpha_1 m_t + \alpha_2 n_t + \alpha_3 y_t + \alpha_4 s_t + u_t \tag{1}$$

$$s_t = \beta_0 + \beta_1 g_t + \beta_2 m_t + v_t \tag{2}$$

$$m_t = \delta_0 + \delta_1 g_t + ng e_t + e_t \tag{3}$$

Where  $\alpha_i$ ,  $\beta_i$  and  $\delta_i$  are the coefficients of the mentioned variables and  $u_t$ ,  $v_t$  and  $e_t$  are error terms of the models.

#### **EMPIRICAL RESULTS**

The above model consists of three equations in order to analysis the interrelationship between economic growth, saving and military expenditure. Using time series data of Pakistan for the period 1980-2013, the model is estimated in two stages:

#### a) Stage first

At the first stage each equation of the model is estimated separately by OLS estimation technique and the empirical results are as follow:

$$s = s(m, g)$$

$$G = -33079.57826 - 4.329*M + 283.469*N + 128.667*Y + 1.393*S$$
  
 $(-10.440)$   $(-3.837)$   $(6.703)$   $(7.259)$   $(10.684)$ 

R2: 0.99710, F-statistic: 3533.656, Durbin-Watson stat: 1.592642

$$S = -2837.984 - 1.502*M + 0.269*G$$
  
(-4.00) (-2.032) (8.712)

R2 = 0.962139, F-statistic: 348.3034, Durbin-Watson stat: 1.784475

$$M = 1084.106 - 0.0064*NGE + 0.0406*G$$

$$(1.957499) \quad (-2.390446) \quad (4.577151)$$

R2 = 0.991904, F-statistic: 1226.162, Durbin-Watson stat: 2.217253

The first equation shows that how military expenditure, population growth rate, per capita income and saving affect growth in Pakistan. The co-efficient of military expenditure (m) indicates that the net value of the spin-off and reallocation of resources effects of military expenditure is negative. This means defense burden absorb resources which could otherwise have been available for productive sector like education, health, and investment hence defense burden direct retard economic growth. The growth rate of population (n) which is used as a proxy for labor force shows the expected positive sign which means increase in labor force will increase growth in Pakistan. The results also show that per capita GDP and saving have positively correlated with economic growth.

In the second equation, the impact of military expenditure (m) and output growth (g) on saving is measured. The negative coefficient of military burden indicates the indirect impact of defense burden on economic growth i.e. defense expenditure retard saving in Pakistan which means increase in military expenditure has opportunity cost in term of forgone saving and hence increase in military burden will depress saving

which leads to low investment and hence low development in the economy. Thus military expenditure has indirect negative impact on growth. The positive coefficient of growth (g) shows that growth supports saving in Pakistan.

In the final equation the impact of output growth and non-military government expenditure on defense expenditure is measured. The results show that non-military government expenditures are negatively related to defense spending as increase in non-military government expenditure reduces funds which might be available for defense sector. The positive coefficient of output growth shows that increase in economic growth has positive effect on military expenditure.

#### b) Second Stage

The above single equation estimates do not reflect the interdependence that exists between growth, saving and military burden, therefore, in this stage the whole model is estimated using simultaneous equations method (used two-stage least square i.e. TSLS) to account for simultaneity and high covariance between the equations and the results are:

 $\begin{aligned} G = &-30948.49 - 4.279116271 *M + 197.2746716 *N + 140.253845 *Y + 1.707909415 *S \\ & (-6.3149) \quad (-2.597781) \qquad (2.595594) \qquad (4.874952) \qquad (8.275445) \end{aligned}$ 

R2: 0.996297, Durbin-Watson stat: 1.968139

S=-2596.517359+0.2923139531\*G-2.021802227\*M (-4.317211) (11.20321) (-3.192730)

R2: 0.958018

M=387.3598165-0.01657784735\*NGE+0.0621887498\*G (3.400426) (-4.484567) (11.82222)

#### R2:0.943081

The above results show that the signs of the coefficients of the variables do not change but the significance of some of them changed.

#### VI. Conclusion

The purpose of this paper has been to investigate the empirical relation between defense burden and economic growth in Pakistan over the period 1980-2013. The paper shows that military burden has direct as well as indirect negative effect on economic growth. The direct negative impact is measured through reallocation of resources and the indirect negative impact is measured through creation of new resources. Therefore, the overall effect of military expenditure on the growth is significantly negative i.e. increase in military expenditure retards economic growth in Pakistan. Policy implication can be inferred from this study that increased military spending cannot be used

to increase economic growth in Pakistan. Any positive effect of military expenditure through modernization channel would be swamped by the negative effect on arowth through low investment.

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## Decline in Business Activity on the Zimbabwe Stock Exchange. A Sign of a Bloodbath on the Zimbabwe Economy (2014)

#### By Dr. Silas Luthingo Rusvingo

Abstract- The mission in this Paper – Decline in business activity at the Zimbabwe activity at the Zimbabwe Stock Exchange: A sign of a limping economy is to measure the decline in the trade in counters during the period September – October 2014. After the discussion of the results, the Author will proffer a Summary, Conclusion and Recommendations to wrap up the discourse.

Keywords: decline trade, counters, zimbabwe stock exchange, limping economy.

GJMBR - B Classification : JEL Code : O10, H54



Strictly as per the compliance and regulations of:



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## Decline in Business Activity on the Zimbabwe Stock Exchange. A Sign of a Bloodbath on the Zimbabwe Economy (2014)

Dr. Silas Luthingo Rusvingo

The mission in this Paper - Decline in business activity at the Zimbabwe activity at the Zimbabwe Stock Exchange: A sign of a limping economy is to measure the decline in the trade in counters during the period September – October 2014. After the discussion of the results, the Author will proffer a Summary, Conclusion and Recommendations to wrap up the discourse.

Keywords: decline trade, counters, zimbabwe stock exchange, limping economy.

#### Introduction

o confirm that the limping Zimbabwe economy now in its 14th year of meltdown was in fact on a downward spiral the Author maintained his focus on the trade on the Zimbabwe Stock Exchange to confirm that indeed the Zimbabwe economy was in a continuous economic meltdown. The period covered by the study extended from 11th September 2014 to 17th October 2014.

Up next is therefore a statement on the Literature Review and Research Methodology adopted for the study to expose the Research Findings as in subsequent paragraphs.

#### II. STATEMENT ON THE LITERATURE REVIEW AND RESEARCH METHODOLOGY ADOPTED BY THE STUDY TO EXPOSE THE RESEARCH FINDINGS

The Literature Review and the Research Methodology adopted by this study indentified and lined up a list of prominent journalistic personalities from the private media to study what each one had to say about the decline in trade on the Zimbabwe Stock Exchange and its economic implications. Thereafter a full scale discussion of the Research Findings follows after which a Summary, Conclusion and Recommendations are prepared to wrap the discourse in the Paper.

Therefore without much ado, the Author called upon Mukoshori (2014) of the Financial Gazette newspaper to give his contribution on the topic of this Paper. Details coming your way in just a moment.

#### a) Listed firms reach crisis point. (Mukoshori 2014)

The dept situation among the top listed firms worsened during the first half of the year as the working capital strain shaking industry and commerce deteriorated easing fears of a sharp economic contraction. The Finance Minister Honourable Patrick Chinamasa had hinted he would review the national budget on 14<sup>th</sup> September 2014 with analysts indicating that the effects of a declining corporate sector were inevitably hitting Treasury in terms of diminishing revenue inflows. In early September 2014 Riozim had extended pretax losses to US\$8.1 million during the review period from US\$2.8million last year after sinking deeper into dept. Interest bearing loans and borrowings climbed to US\$38 million in the first half of 2014 from US\$30.8 million during the six months to December 2013 (Mukoshori 2014).

Revenues for the gold miner retreated by 31%. The dept - laden mining giant closed the period with a US\$31.2 million working capital deficit close to double its position during the full year to December 2013. The financial results under review exposed how the mining giant ran out of cash for day to day operations which stifled growth as seen through the pretax losses which declined four fold. Another giant on the Zimbabwe Stock Exchange, Starafrica which reported a US\$12.2 million loss for the year to March 31, 2014 had also been confronted by cash flow problems that had forced the board and management to redefine the business. The bloodbath at Starafrica which had reported a US\$16.4million loss in 2013, put under the spotlight the choice for conglomerates as business models in Zimbabwe, where TN Holdings had crumbled, while former Zimbabwe Stock Exchange blue chip. TA Holdings had recently been finding it tough to spring out of the red line. The deficit for Starafrica stood at US\$30.6 million during the prior comparative period in 2013. Starafrica had a combined US\$35.4 million current and non-current loans and borrowings during the period under review. Current liabilities the short term dues that Starafrica owed to stakeholders stood at US\$36.5 million during the full year to March 31, 2014 with current assets closing at USS\$1.5 million, which translated into a negative US\$35 million working capital. Total liabilities exceeded assets by a massive US\$23,2 million during the period under review placing its going concern status into question, and its ability to ride over deadly headwinds triggered by a contracting economy into doubt.(Mukoshori 2014).

The crisis had been reported in a number of firms that had collapsed or those that are tottering on the brink of collapse. Across all sectors of the country's economy, the trading environment had deteriorated with nearly all companies struggling to stay afloat due to depressed demand and the inability by cash strapped customers to pay for goods and services on time. There been a sharp drop in economic activity as highlighted bv retreating consumer spending. Deflationary pressures have continued to affect consumer spending power, while long term funding has been difficult to access.

"It is a gloomy outlook for consumer businesses." said economist Takunda Mugaga, head of Research at Econometer Global capital. "It is a cycle of depression, appetite for investment in Zimbabwe is very low, and we don't expect long-term funding in the next 18 months." (Mukoshori 2014).

Very depressing news which is obviously not good music to any business man or woman, let alone the consumer.

Again Nyakuzeya (2014) on the distant horizon sounded more unforgiving with his economic futuristic statistics than his predecessor, Mukoshori (2014). Details on his views on the decline in business activity on the Zimbabwe Stock Exchange coming your way in just a moment.

#### b) ZSE reflects slowing economy (Nyakuzeya 2014)

The slow pace of economic recovery on the Zimbabwe Stock Exchange had resulted in the total value of shares traded on the Zimbabwe Stock Exchange declining to US\$200 million for the eight months to August 2014 from US\$319 million during the same period in 2013. Figures from the ZSE show that the turnover however had increased by 163% to US\$ 66.3 million. This scenario means that foreign investors maintained an appetite for shares on the local bourse, buying US\$53 million worth of shares in August 2014 from US\$15.5 million in July 2014. During the period under review shares sold by foreign investors increased significantly from US\$4.7 million to US\$ 12.7 million. The sharp growth in the value of shares sold on the bourse was reflected by market capitalization which shot to US\$5.1 billion from US\$4.9 billion. Listed companies financial results for the year to March 2014 and June 2014 had been generally negative as the economic situation in the country continues to worsen (Nyakuzeya 2014)

The market bloodbath was also attributed to lack of incentives for current holders to offload stock except for a very few redemptions. The month of September 2014 had however begun bullish. The resurgent buying had been in blue chip and mid tier stocks. According to an Afrasia report, since mid 2013 there had been no consistency on the Zimbabwe Stock Exchange in terms of trading activity to resonate with the

topic of this Paper that the decline in business activity on the ZSE is a sign of a limping economy unrelenting. The liquidity crisis bedeviling the Zimbabwean economy had mainly been cited as the chief cause of investor apathy. Despite all these sad developments there are two issues which drive interest on the ZSE. Analysts said a skeptical market had somewhat warmed up to the recently announced monetary policy which urged companies and individuals to stick to basics of driving business and stabilizing the financial sector with indications government was willing to engage the private sector as it battles to revive the Zimbabwe's faltering economy (Nyakuzeya 2014).

However more activity on the ZSE was expected following the commencing of electronic trading. With three counters initially - ZBC Holdings, FBC Holdings and Cottco Holdings taking part in the historic trade. Chengetedzai Depository was responsible for the project. The ZSE was also working on the installation of an automated trading system which would allow brokers to trade away from the stock exchange as well as cut on fraudulent sale of non-existent stocks. The World Bank had said the ZSE had been experiencing mixed trading due to the liquidity challenges and major sectors of the economy performing below capacity. In August 2014 government and stock brokers had agreed on terms to demutualise the banks which include a new shareholding structure. The process had been consummated through the signing of a memorandum of understanding between Finance and Economic Development Minister Honourable Chinamasa, the representative of stock brokers, Edward Mapokotera, Securities and Exchange Commission of Zimbabwe Chief Executive, Tafadzwa Chinhamo and the ZSE chairperson, Eve Gadzikwa. In terms of the agreement, government owns 32% of the exchange whereas stock brokers control 68%. The new ownership structure is expected to put to bed a litany of concerns that dogged the local bourse. Honourable Chinamasa had said that the primary objective of the demutualization project was to transform the bourse from its current state into a viable public listed company (Nyakuzeya 2014).

The story narrated by another prominent journalistic personality Mtomba (2014) of the Newsday, was more or less as devastating as the nerve wrecking story narrated by Nyakuzeya (2014) of the Financial Gazette. More details on her contribution coming your was in just a moment.

#### Stock Market continues on downward spiral (Mtomba 2014)

The Zimbabwe Stock Exchange indices dropped during 3<sup>rd</sup> week of September 2014 trading due to a decline in trade in counters. The industrial index had lost 0.78 points to close at 193.79 on Friday 26 September 2014. Table 1 below is a highlight of the decline in their share prices to renonate with the topic of this Paper which is about the decline in business activity on the stock market: a sign of a blood bath on the stock market.

Table 1 : Decline in price from selected counters.

Name of Counter	Decline in Price
Pioneer	1 – 3 cents
Delta	99 – 129 cents
CBZ	95 – 130.5 cents
Edgars	1 cent

Source: Mtomba (2013)

EFE Research said the stock market continued on a downward spiral albeit on a marginal scale as Delta put off prior gains in a session where the overall market fared stable. In the broad market of 21 counters two of which closed firmer while 5 softened and the remaining 14 were unchanged according to EFE Research (Mtomba 2014).

In October 2014, Mtomba (2014) sounded a different proposition from her earlier stance in September 2014. Details on this coming your way in just a moment.

d) Stock exchange indices on a nose dive (Mtomba 2014)

To resonate with a bloodbath prediction on the Zimbabwe Stock Exchange Market the ZSE indices had been on a decline path for a long time since the beginning of October 2014 which is an indication of the challenges being faced by listed companies on the Stock Exchange in Zimbabwe. The industrial and mining indices had been on a decline path since Thursday 9 October 2014 the industrial index stood at 189.98 points while the mining index stood at 87.17 points. The industrial index had started the month of October 2014 from 194.71 points. The mining index had started the month of October 2014 at 89.16 points. A tabular presentation would point a better picture than the theoretical presentation as above.

Table 2: Decline in both industrial and mining indices.

Name of Sector	Beginning Index	Ending Index	Decline of Index
Industrial	194.71	189.98	7.19
Mining	89.16	87.17	1.97

Source: Mtomba (2014)

"Generally the operating environment in Zimbabwe remains tough and trading activity continues to be weighed down by these sentiments. However, there was some trading "spikes" in the market mainly on the back of block traders in Zimbabwe, Econet and Delta," Research firm MMC capital said.

The MMC capital Research Firm said the stock market was likely to trend southwards in the short to medium term.

"The shortage of shares relative to demand particularly those that are dear to foreigners (Econet, Delta, Innscor and National Foods) will likely result in positive trading in order to entice those holding the shares to sell, buyers will have to offer a premium," MMC Capital said.

The market capitalization had started the month of October 2014 at US\$5.6 billion and as at Thursday 9 October 2014, stood at US\$4.86 billion. Listed companies that have reported their financial results had cited unavailability of working capital, low aggregate demand, high cost of borrowings and low liquidity levels as some of the major challenges facing the trading environment in Zimbabwe. And finally since the beginning of the year, activity on ZSE has been dominated by consumer stocks and blue chip counters. (Mtomba 2014).

A further resonance with the bloodbath on the Zimbabwe Stock Exchange was what the Business Reporter (2014) said was another tumble at the bourse. More details coming your way in just a moment.

#### e) ZSE continues to tumble (Business Reporter 2014)

The local bourse continues to tumble on the back of damning statistics of national capacity utilization a report by an economic research had shown. The unpalatable state of the economy was re-emphasized in the week under review after the Confederation of Zimbabwe Industries (CZI) report that the country's capacity utilization tumbled from 39.6% recorded in 2013 to 36.1% in 2014.

"The development comes against the backdrop of a difficult operating environment characterized by low demand and arising from a persistent liquidity crunch," EFE said in a report.

EFE said the result had been aggressive downsizing of operations by industry and in worst cases closure.

"The damning statistics saw the market extend its losing streak from prior week into the current with the mainstream, industrial index making it a straight set of five losing sessions in which a cumulative 2.23% was shed to see the index settle at 189.14 points," the report said. (Business Reporter 2014).

The five session losing streak also saw the index's downward trek bring up eight successive losing sessions while extending the year to date losses for the mainstream index to 6.42%. Losses were also witnessed in the resources where the mining index fell by a similar margin to the industrials of 2.23% to close the week at 87.17 points. The drop in the minings follows a 12.5% softening in coal miners Hwange to 7 cents despite reports of the company receiving new equipment to boost operations. (Business Reporter 2014).

Foreign demand remained the major source of liquidity on the bourse as inflows of US\$5.53 million were registered which represented 62% of the total

spent on the market. The total foreign purchases were, however 15.47% softer than the total spent by foreign players in the prior week.

"Aggregate portfolio disposals took the hardest knock shedding 68% for the week and closing at US\$1.17 million being a mere 13% of the week's value of traders according to the report.

Econet emerged the market favourite after 34% of the total value for the week while Zimplow was a surprise second with a 29% contribution thanks to the block trades. Delta was the other notable most sought after stock as 21% of the total funds invested found a home in the beverages group (Business Reporter 2014). With the Literature Review and Research Methodology to expose the Research Findings now out of the way, up next is a Summary of the Paper which is coming your way in just a moment.

#### III. SUMMARY

The limping Zimbabwe economy is in its 14<sup>th</sup> year of economic meltdown was deemed not a conducive environment for businesses and corporates To expose the Research Findings a to prosper. statement on the proposed Literature Review and Research Methodology to be followed by the detailed Literature Review and Research Methodology was as below.

Mukoshori (2014) of the Financial Gazette reports that the corporates listed on the Zimbabwe Stock Exchange reach crisis point. Debt and working capital constraints are cited as the core challenges bedeviling the corporates listed on the Zimbabwe Stock Exchange.

Nyakuzeya (2014) from the Financial Gazette reports that the counteraction of business activity on the Zimbabwe Stock Exchange is in resonance with a bloodbath on the Zimbabwean economy. The biggest development reported by Nyakuzeya (2014) was the massive decline in value of shares traded on the ZSE from US\$ 319 million in 2013 to US\$200 million in 2014. Mtomba (2014) does not bring joy to stakeholders as she reported a continuous downward spiral on business activity to resonate with the serious bloodbath on the Zimbabwean economy in continuous meltdown then in its 14<sup>th</sup> year.

Mtomba (2014) further reported in a separate report that stock exchange indices on the Zimbabwe bourse were on a nose dive with no reprieve expected any time soon.

And finally, the Business Reporter (2014) reported a continuous tumble on the Zimbabwe Stock Exchange against a backdrop of a contraction of capacity utilization from 39.6% in 2013 to 36.1% in 2014 with no reprieve expected any time soon from an economy in a serious bloodbath.

With the Summary conveniently out of the way up next is the Conclusion of the Paper.

#### IV. Conclusion

Kenkel (1984: 342) defines a Research Hypothesis as:

"A statement about the values or set of values that a parameter or group of parameters can take."

According to the same Kenkel (1984:343)

"The purpose of a Research Hypothesis testing is to choose between two conflicting Research Hypotheses about the value of a population parameter. The two conflicting Research Hypotheses are referred to as the Null Research Hypothesis denoted, H<sub>o</sub> and the Alternative Research Hypothesis denoted, H<sub>1</sub>. These two Research Hypotheses are mutually exclusive so that when one is true the other is false.

The definition of the Null and Alternative Research Hypotheses are:

"The Null Research Hypothesis represents an assumption or statement that has been made about some characteristic or parameter of the population being studied. The Alternative Research Hypothesis specifies all possible values of the population parameter that were not specified in the Null Research Hypothesis (Kenkel 1984:342).

For this study titled Decline in business activity on the Zimbabwe Stock Exchange: A sign of a bloodbath on the Zimbabwe economy and in accordance with a survey carried out under the auspices of this study there are two Research Hypotheses. It follows therefore that there will be one Null Research Hypothesis and one Alternative Research Hypothesis as below stated:

#### H

There is no decline in business activity on the Zimbabwe Stock Exchange (ZSE) to signal a bloodbath on the Zimbabwean Economy.

#### H₁

There is decline in business activity on the Zimbabwe Stock Exchange (ZSE) to signal a bloodbath on the Zimbabwean Economy.

Given the overwhelming evidence given elsewhere in this study the overwhelming Conclusion to be adopted in this Paper is therefore obviously to resoundingly reject the Null Research Hypothesis denoted, H<sub>o</sub>, as clearly spelt out above and accept without preconditions whatsoever the Alternative Research Hypothesis, denoted H<sub>1</sub>, again as clearly spelt above.

With the Conclusion conveniently out of the way up next are the Recommendations primarily designed to eliminate or reduce the associated risks so that we do not in Zimbabwe have a bourse with a decline in business activity to signal a bloodbath on the Zimbabwean economy.

#### Recommendations

Traditionally speaking, Recommendations are about what we as a people in Zimbnabwe have not done right. What is it that we have not done right, if the Author may ask?

- The genesis of our problem in Zimbabwe tisingarove imbwa takaviga mupinyu (meaning without beating about the bush but hitting the nail on the head) are a host of unattractive policies that we have in Zimbabwe compared with our regional peers in the SADC region such as South Africa and Mozambique, to name just a few. Chief among these acerbic investment policies are the yet to be finalized chaotic Land Reform Programme of 2000 and the equally obnoxious Indigenization and Economic Empowerment policy in which foreign investors are forced to become shareholders when they bring their money to do business in Zimbabwe. The infamous investment model is a 51:49 share investment model unheard of in the region. No sane investor would take his/her money for investment in Zimbabwe despite the raucous noise from the equally worried stakeholders to suspend the good for nothing investment policy. Zimbabwe is just not competitive enough to last the distance in the race for foreign direct investment in the SADC region of modest economic growth.
- And with the intensifying succession and factional wars to succeed the ageing His Excellence President Mugabe taking its toll on the comatose economy now in its 14th year of continuous meltdown the Author's inescapable Conclusion is that His Excellence President Mugabe could be riding a hungry tiger at his own peril (Sibanda 2014). It is now as evident as the sun rising in the East and setting in the West that the once lovely pet was now showing its teeth with a readiness to pounce. Ndambakuudzwa akaonekwa anembonje pahuma (meaning ignore wise counsel at you own peril). And all these upheavels taking place in our corridors is obviously to the detrimnent of our economy and in turn a bloodbath on the Zimbabwe Stock Exchange (ZSE) Dai Mwari neVadzimu vose venyika ino matipawo tsitsi nenyasha rikava zita regotwe rangu. (meaning may the Almighty God and all the country's Ancestoral Spirits have mercy upon us). (Sibanda 2014).
- An incredible 34 years now and 38 years in 2018 of uninterrupted ZANU PF rule is obviously a sign that the politically and economically cursed Zimbabwe is now thirsting for not only change but fresh ideas from a new party to revive the comatose economy destined for the graveyard. In any case a break from the Mugabe family and his monotonous and boring Anti West rhetoric about sanctions would be

a once in a life time welcome development in Zimbabwe. Hanzi sadza nemaveji mazuva ose hazvipe utano hwakanaka (meaning a monotonous diet on "sadza" (staplefood in Zimbabwe) and vegetables is not good for one's good health as per medical doctor's advice).

For today the Author will park his bus right here but not before the Key Assumption to give the beloved Reader peace of mind after a rough ride through the bloodbath reported on the Zimbabwe Stock Exchange.

With what to be done right in Zimbabwe now out of the way up next is a statement on the key assumption given to reassure the beloved Reader that any word uttered or picture sighted in this Paper had a special meaning.

#### KEY ASSUMPTION

In presenting this Paper titled "Decline in business activity on the Zimbabwe Stock Exchange: A sign of a bloodbath on the Zimbabwe economy (2014) the Author wishes to reassure the beloved Reader, for the sake of his/her peace of mind that all the facts and figures as herein contained are stated as they are on the ground without fear, favour or prejudice.

From a Christian perspective, there is no better way to close the discourse in this Paper on the challenges bedeviling the Zimbabwe Stock Exchange than to say a short prayer to not only benefit Zimbabwe but its suffering masses. The Author, a Christian by religion will lead that short prayer as below:

#### THE AUTHOR LEADS A SHORT PRAYER VII. FOR ZIMBABWE AND ITS SUFFERING MASSES

Mwari wamasimba ose munodzoreredza muzvokwadi varimukurasika kuti vauye munzira yakarurama. Itai kuti isu navo vose vari mukuwadzana na Kristu tirambe izvo zvinopikisana nemi asi titeerere zvose zvinowadzana nemi; kuburikidza na Jesu Kristu Tenzi wedu. Ameni.

(meaning Almighty God, you show to those who are in error the light of your truth, that they may return to the way of righteousness. May we and all who have been admitted to the fellowship of Christ's religion reject those things which are contrary to our profession and follow all such things as are agreeable to the same. Through Jesus Christ our Lord. Amen.) (Pew Paper 2014).

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# An Investigation on Corporate Governance in Selected Commercial Banks in Uganda: A Comparative Study

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Keywords: corporate governance, commercial banks, uganda, employees.

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# An Investigation on Corporate Governance in Selected Commercial Banks in Uganda: A Comparative Study

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Abstract- The study was conducted in three selected commercial banks in Uganda that is Centenary Rural Development Bank (CERUDEB), Orient Bank and Standard Chartered Bank (Stanchart) and was based on information relating to the banks' performance for the years 2007-2011. The objective of the study was to establish the corporate governance employed by the selected commercial banks. The total population of the study was 267 respondents comprising of employees of the three selected banks, who work at the headquarters. The sample size for the study was 159 respondents. This was based on Krejcie and Morgan's (1970) table for determining sample size. The study used a self administered questionnaire, structured to have both openended and closed questions. It was concluded that corporate governance in the selected commercial banks was moderately employed with means of 3.00 for Centenary bank, 2.82 for Orient bank and 2.71 for Standard Chartered bank.

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#### Introduction

ith the dawn of the twenty first century, corporate governance has attained heightened importance and attention in government policy circles, academia, and popular press throughout much of the world. Global events concerning high-profile corporate failures have put back on the policy agenda and intensified debate on the efficiency of corporate governance mechanisms as a means of increasing firm financial performance. The new century's financial scandals affecting major American firms, such as Enron (2001) and WorldCom (2002) and the resulting loss of confidence of the investing public in the stock market led to dramatic declines in share prices and substantial losses, all these attributed to failed corporate governance as a principal cause of the scandals (Holmstrom and Kaplan 2003).

In Africa, comprehensive studies done with regards to corporate governance by Ayogu (2001), found that corporate governance had a problem with its design in institutions that is, the management and their actions in taking account of the welfare of the stakeholders. Akinboade and Okeahalam (2003) followed up the study by doing a cross-country study on

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selected African countries which was essentially a review of corporate governance in Africa and highlighted issues and challenges in corporate governance. Kyereboah-Coleman and Biekpe (2006) did a comparative study by looking at corporate governance and performance of listed and non-listed banks in Ghana, and found out that supervision and enforcement of laws and processes remains a major issue hindering effective corporate governance.

It is for this reason, International standards and guidelines on corporate governance have been established by multilateral organizations including the Organization for Economic Co-operation and Development (OECD, 2004) and the Basle Committee in the effort to ensure improved legal; institutional and regulatory framework for enhancing corporate governance in institutions such as banks and financial markets.

In Uganda, following the enactment of the Financial Institutions Act 2004 (FIA 2004), a new set of implementing regulations had to be instituted. Consequently, nine new regulations to implement the Financial Institutions Act (FIA) 2004 were developed and then gazetted during 2005. To further enhance implementation of FIA 2004, a one day sensitization seminar was conducted for all members of the board of directors of banks to highlight their duties and responsibilities in fostering prudent governance practices in commercial banks. Commercial Banking Department has continued to vet all directors and senior managers of banks under the "fit and proper" test. To enhance disclosure and transparency, banks have been compelled to display bank charges at their banking halls. Furthermore, Bank of Uganda commenced the practice of displaying in the print media the various charges levied by banks on a quarterly

A study by Matama (2008), states that commercial banks failures in Uganda have been linked to self-inflicted causes resulting from bank owners; International Credit Bank (ICB), Greenland Bank (GLB), and Coop Bank were afflicted with the one-man management syndrome of corporate governance exemplified by Thomas Kato (ICB), Sulaiman Kiggundu (GBL) and Usaid (Coop Bank). There was no separation between senior management and the board of directors

in ICB or GBL and that management took little account of depositor's interests. The board of ICB consisted of 4 members of the Kato family including a six -year- old child. GLB had two boards of directors but neither had a say in the running of the bank for instance ICB's audit report cited connected or insider lending to a tune of UShs. 4billion. The BOU closure of the above mentioned banks was intended to awaken the owners, directors and managers of the other commercial banks to institute sound corporate governance principles and foster better financial performance.

Good governance is a requisite and a gauge of how predictable the system for doing business in any country is (Kibirango 2002). Despite the fact that most banking institutions in Uganda adhere to good corporate governance practices, a number of banks have failed to perform as expected. (Japheth Katto, Capital Markets Authority chief executive officer; February 10, 2012). This is evidenced by Centenary Banks' financial results (2010), where the managing director, revealed that the bank experienced a slowdown in its financial growth in 2010 by -0.7% (Centenary Bank Annual reports, 2010). Further, in Orient bank, it has been evidenced that the profitability ratio has been on a decline 32 %( 2007), 31% (2008) and 29% (2009), (Orient Bank Annual report, 2009). Finally in Standard Chartered Bank, the bank failed to pursue maximization of profits as per the bank's business goal for 2011 of despite having good corporate governance practices in place (Jeff Mbanga, New Vision; 1 May 2012). The researcher attempts to investigate why the selected commercial banks in Uganda (orient bank, centenary bank and Standard Chartered Bank) are not performing well despite having corporate governance in place.

#### II. THEORETICAL FRAMEWORK

This study was based on the agency theory, which focuses more on the relationship between the management and shareholders in ensuring that the managers work to the best interests of the shareholders. Separation of control from ownership implies that professional managers manage a firm on behalf of the firms' owners. Conflicts arise when a firm's owners perceive the professional managers not to be managing the firm in the best interest of the owners (Kiel and Nicholson 2003). The theory is also concerned with analyzing and resolving problems that occur in the relationship between principles and their agents and the literature emanating from such efforts has grown, and much of the econometric evidence has been built on the theoretical works of Ross (1973), Jensen and Meckling (1976), and Fama (1980).

However, superior information available to professional managers allows them to gain advantage over owners of firms. The reasoning is that firms' top managers may be more interested in their personal

welfare than in the welfare of the firms' shareholders (Berle and means 1967). Further Donaldson and Davis (1991) argue that managers will not act to maximize returns to shareholders unless appropriate governance structures are implemented to safeguard the interest of shareholders. Therefore the theory advocates that the purpose of corporate governance is to minimize the potential for managers to act in a manner contrary to the interest of shareholders and so relevant for this study.

#### III. METHODOLOGY

The study used descriptive survey design employing both qualitative and quantitative approaches. It used the descriptive design because it is concerned with describing the characteristics of the study. Some data to be obtained was ordinarily be expressed in nonnumerical forms (opinion questions). It was quantitative in the fact that some questions were expressed in numerical form in accordance to the likert scale. It was aimed at providing a systematic description that is as factual and as accurate as possible and a self administered questionnaire was used as the research instrument for data collection. The research also used a cross-sectional design because it is intended to investigate the information on the existing conditions at a given period of time and as well looked at each variable at a particular point in time. The study also took a comparative design because it looked at the corporate governance practices in each of the selected banks and compared them with each other for similarities and differences as well as their effect on the banks' financial performance.

The total population of the study was 267 respondents comprising of employees of the three selected banks, who work at the headquarters. Standard Chartered Bank had 109 employees in their head offices, Centenary Bank 85 employees and Orient bank 73 employees. The researcher selected these because they are more informed of the banks' governance mechanisms and performance than employees working in other branches of these banking institutions. The sample size for the study was 159 respondents. This is based on Krejcie and Morgan's (1970) table for determining sample size. According to this table, for a given population of 270 respondents, a sample size of 159 respondents would be needed to represent a cross section of the population. Standard Chartered bank had 65 respondents, Centenary Rural Development Bank 51 respondents and orient bank 43 respondents in relation to their ratio respectively. The study used a self administered questionnaire, structured to have both open-ended and closed questions.

After a successful data collection exercise, the researcher analyzed, edited, coded, and tabulated the findings. For quantitative data, the computer program, SPSS was used to analyze the data, this is because this

program is simple and easy to analyze and interpret the findings. Descriptive statistics was used making use of frequencies and percentage tables and mean.

#### Results and Discussions IV.

The study was to examine the corporate governance practices employed by the selected commercial banks in relation to financial performance. The specific variables investigated under study were, board of directors operations, organizational policies and procedures, statutory compliance and financial management and reporting. This was analyzed using the mean which portrays the occurrence of the response in the selected commercial banks and enabled the researcher to make a comparison of the corporate governance practices between the selected commercial banks.

Descriptive statistics showing mean on the corporate governance practices employed by the selected commercial banks

Item	Stan	Standard Chartered Ce Bank		ntenary bank	Orient bank	
	Mean	Interpretation	Mean	Interpretation	Mean	Interpretation
Board of Directors operations The board comprises of 8-12 members	3.38	High	3.16	Moderate	1.77	Low
The board aproves an annual business plan which is linked to the strategic plan	3.08	Moderate	3.08	Moderate	2.81	Moderate
The board reviews the strategic plan on regular basis Responsibilities are clearly	2.87	Moderate	2.78	Moderate	2.91	Moderate
communicated to the board and organization as a whole	2.70	Moderate	2.80	Moderate	2.74	Moderate
The appointment of board members considers the skill requirements of the board  The board consults with relevant	2.98	Moderate	3.12	Moderate	2.88	Moderate
stakeholders about issue before making decisions which might affect them The board monitors the implementation	3.01	Moderate	2.90	Moderate	2.91	Moderate
of its decisions on a regular basis	2.69	Moderate	2.90	Moderate	3.02	Moderate
Key managers attend board meetings to inform the board in decision making	2.97	Moderate	3.16	Moderate	3.07	Moderate
There are regular staff meetings where employees are made aware of current issues facing the organization and give feedback to management	2.87	Moderate	3.12	Moderate	2.98	Moderate
	2.95	Moderate	3.00	Moderate	2.78	Moderate
Statutory compliance						
The board is aware of legal reporting requirements	2.93	Moderate	2.90	Moderate	3.02	Moderate
The management is aware of legal reporting requirements	2.64	Moderate	2.68	Moderate	2.40	Moderate
There is a system to ensure compliance of the legal requirements	2.41	Low	2.74	Moderate	3.05	Low
	2.66	Moderate	2.77	Moderate	2.82	Moderate
Organizational policies and procedures						
The board has agreed on operation policies and procedures regarding the structure of governance	2.56	Moderate	3.00	Moderate	3.23	Moderate
The board has agreed on operation policies and procedures regarding	2.28	Low	2.84	Moderate	3.14	Moderate

financial management

The board has agreed on operation

policies and procedures regarding risk management			2.25	Low	2.90	Moderate	2.91	Moderate	
	the board has agreed on operation policies and procedures regarding fraud control		2.15	Low	2.98	Moderate	2.98	Moderate	
			2.33	Low	2.93	Moderate	3.07	Moderate	
Financial management and reporting									
There is a system of processes in place to monitor financial performance		2.28	Low	3.12	Moderate	2.88	Moderate		
There is an established process for budget development and financial planning for the organization			2.38	Low	2.62	Moderate	2.84	Moderate	
	financial delegati by the board	em of procedures for ons in place approved	2.59	Moderate	2.58	Moderate	3.05	Moderate	
There are performance measures which enable efficiency of the organization to be assessed Financial reports presented to the board communicate relevant financial data effectively Financial reports are supported with appropriate financial and operational ratios and other performance indicators			2.52	Moderate	3.12	Moderate	2.72	Moderate	
			2.46	Low	3.06	Moderate	2.91	Moderate	
			2.70	Moderate	3.18	Moderate	2.80	Moderate	
There is an independent auditor to audit the annual financial statements		2.85	Moderate	3.22	Moderate	2.72	Moderate		
			2.54	Moderate	2.99	Moderate	2.85	Moderate	_
	Grand Total		2.68	Moderate	2.95	Moderate	2.85	Moderate	
	Legend 1 Legend Scale 3.25-4.00 2.50-3.24 1.75-2.49 1.00-1.74	Scale interpretation High Moderate Low Very low	Scale Good Fair Bad Poor	interpretation					_

Table above shows the board of directors operations, the results indicated that board of directors operations is moderate, Centenary bank having a mean of 3.00, followed by Standard Chartered bank 2.95 and Orient bank having a mean of 2.78. This means that the board operations are not fully exercised in the selected commercial banks, which is contrary to Hopt (2022) who states that the board is chiefly responsible for maintain managerial performance in achieving an adequate return for shareholders and other stakeholders, while preventing conflicts of interest. Taylor (2002) also argues that success of any business ultimately depends on the full capacity of its board of directors to provide a direction needed not only to survive but to develop and prosper. This may be the reason for the moderate financial performance.

With regard to statutory compliance, the results indicated that there is moderate statutory also

compliance in the selected commercial banks with Orient bank having a mean of 2.82, followed by Centenary bank 2.77 and finally Standard chartered bank with a mean of 2.66. This means that the selected commercial banks have are not fully compliant with the set laws. This to some extent contradicts with Vallabhaneni (2008) who states that for efficient performance, any business needs to be aligned with its ethical and professional standards so that adherence to these values is rewarded.

Further, the findings indicated that there was a low mean of 2.33 for standard Chartered bank when it came to organizational policies and procedures. Orient bank had the highest mean of 3.07 while centenary bank had a mean of 2.93. This means that there are weak policies and procedures in Standard Chartered bank as compared to Centenary Bank as well as Orient bank, which have moderate means. This implies that all the three commercial banks have a lack in their policies and procedures.

Lastly, the findings indicated that there was a moderate mean for all the banks when it came to financial management and reporting. Centenary bank had mean of 2.99, followed by Orient bank 2.85 and Standard Charted at 2.54. This means that there is moderate financial management and reporting in the selected commercial banks.

In General, there moderate corporate governance practiced by the selected commercial banks by the grand mean of 2.95 for Centenary bank, 2.85 for Orient bank and 2.68 for Standard Chartered Bank. This means that the respondents' opinions about corporate governance employed by the selected commercial banks were almost similar, suggesting that that the respondents agree that corporate governance is moderately employed by the selected commercial banks.

In summary the corporate governance practices by the selected banks is moderately employed at a grand mean of 2.95 for Centenary bank, 2.85 for Orient bank and 2.68 for Standard Chartered Bank which are all moderate. This implies that even the contribution of this on financial performance of these banks is significantly moderate. This is contrary Bocean and Barbu (2005) who state that efficient corporate governance matters for financial performance. Matama (2008) also recommended that banks, both local and international should enforce full corporate governance practices for them to survive in the competitive financial landscape and finally Shleifer and Vishny (2007) state that if corporate governance mechanisms did not function properly, outside investors would not lend to the banks or buy the banks' securities and as a result of this, the overall financial performance is likely to suffer. The moderate corporate governance in the selected commercial banks may be the reason for the failure of the selected commercial banks to achieve the expected financial performance.

#### V. Conclusion

In regard to the findings, it was concluded that, corporate governance in the selected commercial banks was moderately employed, meaning that the corporate governance practices exist but they are not fully exercised. This may be due to lack skills and knowledge by the board remembers poor composition of the board or lack of commitment by board members and reluctant monitoring of the management and poor implementation of the set policies and procedures by management and other employees of the selected banks.

#### VI. RECOMMENDATIONS

The researcher based his findings and views from the respondents that participated in the study that

the board of directors in the three selected commercial banks should make efforts in ensuring that the policies set both by law and the board of directors are revised and fully employed. The boards should improve on their monitoring and review the tragic ad annual plans regularly. The banks' management should come up with the measurement for the policies and procedures implemented to ensure that they have been followed and applied efficiently to ensure that they remain optimistic in the competitive financial landscape. The bank management should also utilize the banks' assets in generating more profits.

For Orient bank, the bank management should revisit and redesign their training and development module for their employees which will be applied regularly in the company to improve the contribution of the workforce in Orient bank. The bank management should improve the remuneration package that will motivate the employees in the bank and retain the available workforce as they gain experience in the banking industry, which will eventually improve financial performance of this bank.

For the case of Centenary bank, the management needs to be more strict on bank's lending policies which have led to high loan default rates. This may be done through assessing individual and corporate credit worthiness and verifying the worth of the assets attached as securities when requesting for loans.

For Standard Chartered bank, the bank should put measures and work with the central bank to ensure that the foreign exchange rates are stabilized to ensure favorable exchange and interest rates for the customers. Finally, competition was seen to cut across all the three selected commercial banks that requires innovation, delivery of quality products and services and delivering good customer care to the clients and customers.

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# Zimbabwe Econocy in Autopilot Aeroplane as More Companies Close Shop (2013-14)

By Dr. Silas Luthingo Rusvingo

Abstract- The mission in this Paper as per its title is to carry out a Literature Review, Research Methodology and discover the Research Findings in the context of the above topic. To keep with his tradition, the Author will profer a Summary, Conclusion, Recommendation, Key Assumption and a short prayer for Zimbabwe to wrap up the discourse in this Paper.

Keywords: economy, zimbabwe, autopilot and company closures.

GJMBR - B Classification : JEL Code : L51, O10



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#### Introduction

ope of a new economic turnaround under the new ZANU PF government overwhelmingly voted into power in the 31 July 2013 harmonized polls appeared to be fading even faster as more and more companies close shop throwing thousands of workers onto the streets to join the teeming ranks of the unemployed estimated at 88% against the a SADC regional unemployed rate of +/- 25% (Mangudhla and Mambo 2013). Information gathered by the Zimbabwe Independent in mid October 2013 shockingly revealed that scores of big companies that used to employ tens of thousands of workers are either on the verge of collapse or have closed down completely leaving workers stranded. A July 2013 National Social Security Authority (NSSA) Harare Regional Employers closures report for the period July 2011 to July 2013 showed that 711 companies in Harare alone had closed down rendering a whopping 8336 individuals jobless. In addition, many companies are downsizing have too retrenched tens of thousands of their employees, condemning them to a gloomy future where ZANU PF party notorious for its baboon and monkey tricks had in the lead up to 31 July 2013 poll in Zimbabwe promised the gullible electorate most of them putting on trousers and dresses without undergarments because of humiliating poverty that if voted into power which is what eventually happened, the paranoid party would create a stratospheric 2,265 million jobs in a utopia Zimbabwe. If the stark truth is to be told since July 2013 when the boastful ZANU PF overwhelmingly was voted into power more jobs in Zimbabwe have been lost than created to come to the inescapable conclusion that the Zimbabwe economy is in autopilot. Nobody knows where it is going and coming from. Things are that bad in Zimbabwe a country once upon a time touted as the "Switzerland" of Africa but now reduced to a hopeless basket case because of bad governance (Mangudhla and Mambo 2013) (Staff Reporter 2014).

Major companies that had retrenched include among others, platinum miners Zimplats and Unki, Bindura Nickel, Spar Supermarkets, Dairibord, Cains, Olivine Industries and PG Industries. Zimbabwe Construction and Allied Trades Workers Union (ZCATWU) General Secretary, Nicholas Mazarura said their members had experienced intensifying problems since the beginning of this year (2013) with Zimplats and Implats platinum miners failing to pay their subcontractors resulting in the retrenchment of over 4 000 employees.

"Zimplats alone retrenched close to 2 500 employees in April while four companies contracted by Implats in Unki have also retrenched workers citing nonpayments of wages by Implats", Mazarura said.

"We are experiencing hardships because hundreds of companies are closing shop blaming the liquidity crisis. At the moment the construction industry is operating at less than 40% production countrywide", he said

According to the NSSA report, 330 companies in Harare in the retail and other business services categories closed while administration-related businesses also suffered a huge knock with 59 companies closing with the construction and baking industry loosing 42 and 32 companies respectively. It also indicated that 47 companies had shut down in the farming sector while 20 players went under in the printing industry. Zimbabwe's agriculture sector had been struggling to recover from the madness and impact of the chaotic 2000 Fast Track Land Reform Programme, which disrupted land ownership and tenure. Despite much interest in Zimbabwe's mining sector, 7 companies had closed down in the extractive industry during the period under review while 9 companies went bust in the milling industry. Millers have been hard hit by cheaper imports a general lack of adequate grain and cereal supplies due to the chaotic Land Reform Programme of 2000 in Zimbabwe. The health and transport sectors were not spared by the economic downturn with 18 players in the health services and 16 in the transport sector closing down in the 2 years under review in Harare (Mangudhla and Mambo 2013) (Staff Reporter 2014).

Apart form the company closures that claimed thousands of jobs, the country's ailing economy had suffered serious knocks from the retrenchments.

Sources on the retrenchment board who spoke to the widely read Independent on condition of anonymity said the downward trend is continuing:

"The situation will persist in the foreseeable future because we are a consumer economy instead of a production-oriented economy" said the source.

"Its even worse because we do not have foreign direct investment: so everyday companies are retrenching or liquidating"

The Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU) executive director Gibson Chigumira was in mid-October 2013 quoted as saying the synchronisation of government with investment decision of the manufacturing sector is critical if the country was to become competitive in attracting investments in the SADC region of modest economic growth and subsequently creating a positive cycle in the recovery of industry. Zimbabwe, because of poor governance has one of the most uncompetitive business environments and is ranked among the worse in terms of ease of doing business. The poorly governed country also remains unattractive to international financing largely due to a huge external debt estimated at about US11 billion. This has resulted in the unavailability of long term cheap financing with the available short term loans being very expensive due to high demand against a low or weak supply. In a separate interview in mid-October 2013, the Zimbabwe Congress of Trade Unions National Coordinator Elija Mutemera said Zimbabwe is currently witnessing massive retrenchments as companies reel under the serious liquidity crunch.

"We are witnessing massive retrenchments this year more than ever and most companies are now interns who are only given bus fare at the expense of full time employees", Mutemera said.

"Over 1300 workers at Bindura Nickel Mine were laid off although negotiations were going on with regards to their packages".

Mutemera also said that companies like PG (Plate Glass), Rainbow Towers and Spar had been retrenching countrywide since the beginning of 2013.

"Spar is retrenching 40 workers per branch countrywide while at the hotels 75% of the employees are students", he said.

Federation of Food and Allied Workers Union of Zimbabwe (FFWUZ) members had been hit hardest as thousands were left jobless in January 2013.

"We have companies such as Dairiboard Holdings which has retrenched the majority of its employees countrywide", said Gift Maoneke, FFWUZ paralegal officer.

Maoneke said Cains had been placed under judicial management with hundreds of its employees stranded at home and only being called when the need arises. Other big name companies retrenching include Colcom (which had closed its meat processing department), ZimPack Food and TM Supermarkets. The banking sector had also been dealt heavy blows by closures and retrenchments since 2009. Zimbabwe Banks and Allied Workers Union (ZIBAWU) general secretary Shepherd Ngandu said retrenchments in the banking sector are likely to continue.

"Interfin is under unclear circumstances because it is under curatorship, while another bank (name supplied) is intending to retrench anytime soon because they are not financially stable", he said (Mangudhla and Mambo 2013) (Staff Reporter 2014)

A July 2013 Employment Federation of Zimbabwe report shows 1100 individuals were retrenched in the first half of 2013 and were recorded at the Ministry of Labour and Social Welfare. Olivine laid off 109 employees in the first guarter of 2013 and Interbank retrenched 114 workers in the second quarter of 2013. Dairiboard had retrenched 92 workers. AfriAsian Kingdom Bank 52 and Rainbow Tourism Group 44. According to a Confederation of Zimbabwe Industries (CZI) 2013 manufacturing sector survey 14% of the respondents has indicated there were downsizing and had retrenched permanent staff due to a downturn in business. Lack of finance, policy inconsistencies at government level, inadequate infrastructure, restrictive labour laws and government bureaucracy were the major hurdles for local business according to the CZI. Government insist that most the country's debilitating problems had been brought by sanctions imposed by the West on the country over a decade ago. However critics put the blame on poor governance. Earlier this month, Industry and Commerce Minister Honourable Mike Bimha guickly assured industry of recovery saying government was committed to improving the business environment (Mangudhla and Mambo 2013 ) (Staff Reporter 2014).

But this was a tired rhetoric which found no takers in this modern world of increasing complexity. The Author will quickly dismiss the Honourable Mike Bimha industry recovery assurance that this was another baboon and monkey trick by ZANU PF to continue to misrule over us. They are the one who brought the misfortune upon us and you can't expect the same person to rectify his mistake. Only someone other than ZANU PF can bring recovery to the Zimbabwe industry and commerce.

"The good news is that a lot factors are within our control if we work together as public and private sector and next year we can see the situation improving", Bimha said. (Mangudhla and Mambo 2013) (Staff Reporter 2014).

As is always the case with the paranoid ZANU PF party, it is easier said than done. Period.

Hanzi kuziva mbuya huudzwa. (Meaning there is for you the horror of a long ignition to the discourse in this Paper. Up next is a statement on the Literature Review and the Research Methodology adopted for the study in order to expose the Research Findings which to the Summary, Conclusion Recommendations of the study.

#### LITERATURE REVIEW, RESEARCH METHODOLOGY AND IN DISCUSSION OF THE RESEARCH FINDINGS

This paragraph is devoted to painstaking search for the evidence to convince the reader that indeed the Zimbabwe economy is a passenger in an autopilot aeroplane meaning nobody knows were the Zimbabwe economy is taking the nation to and where it is coming from nor does anybody know how and when it will reach its destination. To achieve this objective the Author lined up a list of journalistic personalities to find out what these gurus have said and written about the Zimbabwean economy crushing to a halt as insinuated by the topic of this Paper.

And without much ado, the Author will call upon Ndlovu (2014) of the Financial Gazette to give us his side of the story on why the Zimbabwe's economy is a passenger in an autopilot aeroplane. More details on his story coming your way in just a second.

#### a) Bulawayo closed for business (Ndlovu 2014)

Sixty percent of companies operating in Bulawayo had been placed under judicial management an indication of the dire state of affairs in the country's second largest city after Harare. Once Zimbabwe's industrial hub was now a pale shadow of its former self. Estimates from the Industry Ministry indicate that over 100 firms in this "City of "Kings" as Bulawayo is affectionately known, had shut their operations this year (2014) alone. Companies that have either shut down or have been placed under judicial management include among others Savanna Woods, Trade Power, Textile Mills and Willsgrove. Youth Development, Indigenisation and Economic Empowerment Minister Honourable Francis Nhema in mid-October 2014 made startling disclosures that 60% of companies in Bulawayo had been placed under judicial management. Judicial management applies where a company had been wound up for financial reason when it could have been saved had it been managed well. Judicial management was introduced to assist this type of company overcome a temporary setback without going out of business. A iudicial management order usually gives the company a moratorium on its debts. Essentially the court replaces the directors. A provisional judicial manager is appointed to assume control until the final judicial manager can be appointed.

"In Bulawayo a whopping 60% of businesses are under judicial management. This is something which we allowed and now its difficult to entangle ourselves from. We need to find ways to entangle ourselves", he said.

"It is difficult now to enforce compliance because of judicial management, but that should not prevent

Government promulgated a law in 2008 that compels foreign-owned companies to give up 51% of ownership to blacks. But the Authorities are having nightmares in enforcing the Act especially on distressed firms that can barely keep their heads above water. The collapse of industry is pilling pressure on His Excellence President Mugabe's administration, whose campaign messages ahead of the 31st of July polls were anchored on reviving industry and creating more jobs. But the reality check then was that more companies were closing shop than those revived and also the more jobs had been lost than created between 31 July 2013 and October 2014, which is approximately 15 months later (Ndlovu 2014). At his inauguration speech after winning the 31 July 2013 polls, the ZANU PF leader had said Bulawayo had been turned into an industrial scrapyard and again vowed that his administration would intervene to reverse the situation. Despite the promises which people are now getting tired of the economic situation had gotten worse. And for the first time in the recorded history of the country the clueless ZANU PF was now getting serious warnings from within its ranks that it faces civil unrest if it does not find lasting solutions to the country's economic meltdown sooner rather than later. In mid-September 2013, Jacob Mudenda the speaker of the National Assembly issued a stern warning that even political careers could come to a premature end if the country's clueless political leadership failed to resolve the economic impasse.

"The failure to deliver on .our mandate might lead to unceremonious and untimely amputation of our political careers or even worse still trigger social convulsions that might endanger the general peace and stability we have enjoyed since independence as well as the period after the 2013 general elections".

"Declaratory achievements not buttressed by substantive and discernible progress on the ground will alienate the people we undertook to represent as honourable members", Mudenda said wearing a stone face.

The government's 250 000 civil servants of which 75 000 are ghost workers employed by ZANU PF through the back door after killing, maiming and raping the electorate to vote ZANU PF in the 31st July 2013 polls, are among the most disgruntled section of society. For the first time ever, pay dates for civil servants have become erratic with the financially hamstrung government failing to guarantee one standard pay date to dispense pay salaries most of which are below the poverty datum line of US\$550 for a family of six, as it scrounges month after month for the resources that are proving hard to come by in day in day out (Ndlovu 2014).

For any sane person of average intelligence who has Zimbabwe at heart zvinoda wakashinga (meaning it requires those with the bravest hearts in Zimbabwe to stomach the economic downturn in Zimbabwe). The Economic horror in Zimbabwe is having a sour state in the mouths of more and more people failing to come to grips with what really went wrong shortly after the 31 July 2013 poll.

Again startling revelations await the suffering masses in Zimbabwe as Saburi (2014) takes to the pulpit to deliver his sermon on the Zimbabwe economy on autopilot. Details on this coming your way in just a

#### b) What Can Zimbabwe Do For Itself? (Ndlovu 2014)

It was reported in the state media that his Excellence President Mugabe and a high powered delegation had travelled and signed mega deals with the country's all weather friend China from the Far East. No figures were given. After all the careful analysis and calculations using electronic calculators, China offers little hope to the financially hamstrung Zimbabwe government still refusing full responsibility for a horror economy bedevilling Zimbabwe. The economy remains in a sorry state with the clueless ZANU PF government refusing to take full responsibility. The Zimbabwe economy is caught in a web of weak economic fundamentals. Shamefully what is taking precedence and preoccupying the ZANU PF dominated government is the imminent fragmentation threatening its power monopoly for an incredible 34 years since independence from Britain in 1980. The ZANU PF power monopoly with the exception of Angola has no parallel in the 14 member SADC region. Unfortunately for hardworking and tax paying Zimbabweans, the economy is scrapping at the very bottom and there is no redemption in sight. Everyone especially those in government acknowledge the precarious position the economy is in. There is growing concern that His Excellence President Mugabe's ability to drive a revival economic agenda as he is preoccupied with fire fighting squabbles threatening to disintegrate his party. The succession issue that was left festering for far too long is now a wound threatening ZANU PF health in a mazvokuda mavanga enyora (meaning suffering pain from a self inflected wound). ZANU PF has historically been a party in which political alliances are increasingly based on the access they can offer to wealth and government resources. No wonder the national economy is not a national priority and corruption in the country has reached crisis proportions (Saburi 2014).

In fact corruption has become normal in our political culture and this is indicative of a government and a public that has become tolerant of the abuse of public resources. Most Zimbabweans have since lost trust in political public and business leadership. There is a feeling all round that government does not give a damn. The Zimbabwean government may well argue however that it has taken some measures to combact corruption this year particularly addressing the accountability of the perpetrators in state enterprises and government-run institutions but it is all talk with no action! Of course it is tempting to jump to easy conclusions. It is also profoundly tragic our government's policy uncertainty is undermining investment. The 2014-15 World Economic Forum Global Competitiveness Report points out that Zimbabwe is yet to work out its policies to attract and create investment; most international investors and financiers are still wary of the country's acerbic indigenisation law that compels foreigners to cede majority shareholding to black locals in a move that is perceived as xenophobic against foreigners. The question is not what China can do for Zimbabwe but what the country can do for itself. The contradictory phenomenon is the belief that the best solutions to our economic problems are no doubt indigenous. The most effective solutions cannot be imported: They must be the result of deliberate reorganisation of the resources we have available. In the final analysis the solution to the Zimbabwean economic crisis must come from Zimbabweans themselves. Outsiders can help to facilitate and offer whatever they can but ultimately the solutions to grow our economy must be home grown (Ndlovu 2014).

Dr. Gideon Gono's initiative that "Failure is not an option" must be supported. During his tenure (2003-13) the country's economy was in a serious down swing. The trajectory it had taken was quite discomforting to every Zimbabwean, and indeed even foreigners, particularly those who wanted to invest in the country. Gono was someone everyone looked up to for solutions. Yet, as he was latter to acknowledge, it did not depend on his individual dexterity as a turnaround expert but on collective efforts by Zimbabweans particularly the bickering ZANU PF and MDC-T who were later to form the Government of National Unity (GNU) (2009-13) to solve the debilitating challenges then bedevilling the Zimbabwean economy. According to the living legendary Gono failure was not an option provided there was basis for hope - the hope that every living human being should never loose. Failure is not an option provided the basis for faith in the future of a ravaged economy - if one uses faith in any endeavour, they yield to disappointment and consequently see no meaning in life (Saburi 2014).

As long as we live and God has blessed us with health and hope is one thing never to give up, and when it comes to national problems that hope should be collective and everyone should ask what contribution they ought to make to solve the problems. The new Reserve Bank of Zimbabwe Governor, John Mangudya appears to have been confronted with by that same lack of collective effort among Zimbabweans. He is clearly disappointed and has indicated in public fora that he is enraged by the lake of sincerity and collective efforts by Zimbabweans in solving the country's problems. In fact they even cheated foreign investors by squandering capital which should be used to turnaround the economy.

Mangudya's view is that people must change from the hyperbolic inflationary era when every transaction involved billions of dollars to current hard currency era when transactions should involve very low figures. We should become more ethical and sincere in all our business dealing both among ourselves and with foreigners. This is certainly not too much to ask (Saburi

The brutal truth is that with the ZANU PF elective Congress around the corner in December 2014, the economy has been abandoned to become a floating object at sea with no one really interested to know about its health status. For more on this story (Ndlovu 2014) is back again this time to tell the Reader how the intensifying succession and factional fights have taken their toll on the shuttering Zimbabwe economy.

#### c) ZANU PF takes eyes off economy as succession fights intensify (Ndlovu 2014)

His Excellence President Mugabe had taken his eyes off the troubles afflicting the Country's economy as the party official increasingly become occupied with angling for high office at the upcoming elective Congress in December 2014. For ZANU PF the closer the Elective Congress the more the party suffers from a double tragedy of mai vatsva kumusana, mwana atsva kudumbu (meaning a double tragedy were the mother with a baby strapped on her back catches fire for both to die in the fire accident). The promises made in the run up to 2013 harmonized polls such as the creation of 2,265 million jobs and empowerment of the poor seemed to have been abandoned as the party undergoes its most vicious cycle of in fighting and mudslinging only His Excellence President Mugabe who had been at the helm of the party for close to four decades was safe from a challenge at the December 2014 Congress with everyone else in the party structures being fair game. The ground which was once considered safe for Amai Mujuru appears to be shifting where senior party officials had indicated she could also face a challenge for her position in the presidium of the party. Even Simon Khaya Moyo appeared to be an unsafe candidate to the Vice Presidency of the party as more party candres in the party had shown as interest

by throwing their names in the hat to contest the post. The agenda for the Politbro meetings which had been held in recent weeks are a pointer to how the December 2014 Congress was giving sleepless nights and headaches to the party. In some cases Politburo meetings had stretched well into the night with deliberations going on for up to 10 hours on end, as party's highest decision making body outside Congress deliberated on the political goings in the revolutionary party (Ndlovu 2014).

Political observers had said the agenda of the Politburo meetings was a clue of what was occupying the ruling party the most, although in public it had put on a brave face and pretended to be concerned with the economic meltdown. John Mangudya, the Reserve Bank Governor was the second state bureaucrat after Gershem Pasi the Zimbabwe Revenue Authority Commissioner to have raised the alarm bell on the sorry state of the economy. Pasi had earlier warned early in 2014 that the Zimbabwe economy was in the doldrums which Mangudya in his maiden monetary policy statement in August 2014 warned that foreign direct investment had plunged by 59% in the first half of the year. Yet his assessment and warnings seemed not to have taken any skin off the noses of the powers - that be. It was business as usual when the ZANU PF Politburo met in the first week of September 2014. The Financial Gazette understands that there was an incredible amount of bickering with tempers rising as members of the Politburo argued, challenged and disputed claims back and forth along factional lines (Ndlovu 2014).

Political analyst Charles Mangongera said there was no way the economy would be a priority of the ZANU PF government until after the December 2014 Elective Congress.

"Even after the Congress I do not see how the issue of the ailing economy is going to be resolved. The brutal reality is that as long as President Mugabe was there we are not going see any serious capital inflows. I think serious investors are looking at a post President Mugabe Zimbabwe for them to jump in", said Mangongera.

Political commentator Allen Hungwe said the ruling party had taken its eyes off the economy with whatever little attention was being paid to the economy primarily focused on how to leverage on faction against the other.

"The economy is no longer seen as priority but a political football instrument. Its a football instrument in a game where the game is not about national recovery but rather about scoring to leverage internal factions in ZANU PF", said Hungwe.

A weeklong trip to Beijing by His Excellence President Mugabe and several senior government officials had dismally failed to yield the funding and

turnaround for the economy which as earlier anticipated - leaving Harare to fend for itself. The financially hamstrung ZANU PF government requires US\$27 billion which it does not have in its coffers to implement its much hyped economic blue print - the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset). The Finance Minister Honourable Patrick Chinamasa who was one of the key negotiators of the historic China trip had told the august House of Parliament in early September 2014 that no meaningful funding had been unlocked from the Chinese government.

"What we have been able to achieve was serious engagement with the Chinese Authorities. We got a commitment from the highest Authority to fund bankable and viable projects", said Honourable Chinamasa.

Chinamasa went on to explain:

"China does not give budgetary support to any country. It is interested in giving infrastructural support. We came back with commitment that they are prepared to fund bankable projects".

With a new ZANU PF leadership expected to emerge in December 2014 there won't be reason to celebrate the win - with an in-tray of the economic troubles likely to put an abrupt ending to the merrymaking (Ndlovu 2014).

There is the horror of an economy for you the Reader to judge in the context of the Research Findings exposed as above. What remains undone at this juncture is to turn the focus on the Summary of the study which is surely going to be good prospect for you the Reader in as much as it is to the Author. All said and done it is now time for the Summary of the study which is up next.

#### SUMMARY III.

The ignition to the discourse of this horror script of a Zimbabwean economy takes us face with not only more companies closing shop elsewhere in Zimbabwe but with thousands of Zimbabweans losing their jobs in scenarios where only 15 months earlier the ZANU PF party had promised to create a whooping 2 265 million jobs to the gullible electorate. Come the post election year era and ZANU PF is in power. The brutal reality that dawns on both ZANU PF and the electorate is that more jobs had been lost than created in an economy which has just gone bankrupt because of bad governance by ZANU PF. Acerbic policies like the chaotic Fast Track Land Reform Programme of 2000 and the investor spooking Indigenisation and Economic Empowerment law do not resonate with the foreign direct investors to throw Zimbabwe in the wilderness with no investor prepared to waste his time and money on hopeless Zimbabwe.

After Introduction come the Literature Review and Research Methodology employed in the study to expose the Research Findings which are the subject of the discourse in this Paper.

What makes the Author rue his birthday in a poor Third World country like Zimbabwe is that while 64% of industries are lying idle for reasons of lack of working capital politicians in ZANU PF find time to take their eyes off the burning economy to engage in self serving succession battles to succeed the ageing His Excellence President Mugabe (Ndlovu 2014).

Out of desperation to save an economy headed for the graveyard His Excellence President Mugabe had travelled all the way to China leading a bloated high powered delegation of cabinet ministers and other government officials. The mission was to extend the country's begging bowl to China. But the sad news for Zimbabwe was that China does not give budgetary support to countries in need of financial aid. What it gives instead is financial support to bankable projects. So truely speaking His Excellence President Mugabe and his bloated delegation returned home empty handed in a popular narrative in Shona language that murombo haarovi chinenguwo (meaning the best a poor man can hope for in this world of increasing complexity is to die poor. Period). (Ndlovu 2014) (Staff Reporter 2014).

ZANU PF is between now and (October 2014) and December 2014 facing the most difficult time in its 51 year history if the Brutal truth was to be told. As repeatedly said in this Paper, the Zimbabwean economy and 13 million Zimbabwean passengers in this autopilot aeroplane with no one in charge on board the said plane. The destination of this plane remains unknown. The brutal reality for the autopiloted aeroplane is a crash landing with no survivors from all the 13 million Zimbabwe passengers aboard. In short, this is the mountain of a problem facing the ZANU PF party in power since independence from Britain in 1980.

- Without divine intervention the comatose economy is headed for the swamps if not the dreaded graveyard
- His Excellency President Mugabe faces an explosive ZANU PF internal revolt after his wife Dr. Grace Mugabe had in recent weeks escalated her insults and abuse of Vice President Joyce Mujuru to hysterical levels, amid glaring indications the ruling party's leader had lost control to his seemingly panicking stricken spouse as things dramatically fail apart (Staff Writer 2014).
- The party could be severely weakened by an imminent split into two as the country drives towards the explosive ZANU PF December 2014 elective Congress (Kwaramba 2014)

From the summary above, nothing is looking good for ZANU PF between now (October 2014) and December 2014. With the Summary now out of the up next is the Conclusion.

#### IV. CONCLUSION

Kenkel (1984:342) defines a Research Hypotheses as:

"A statement about the values or set of values that a parameter or group of parameters can take".

According to the same Kenkel (1984:343):

"The purpose of a Research Hypotheses testing is to choose between two conflicting Hypotheses about the value of a population parameter. The two conflicting Research Hypotheses are referred to as the null Research Hypotheses,  $H_0$ , and the Alternative Research Hypotheses,  $H_1$ . The two Research Hypotheses are mutually exclusive so that when one is true the other one is false".

The definitions of the Null and Alternative Research Hypotheses are that:

"The Null Research Hypotheses represents an assumption or statement that has been made about some characteristics (or perimeter) of the population being studied. The Alternative Research Hypotheses specifies all possible values of the population parameters that were not specified in the Null Research Hypotheses (Kenkel 1984:343).

For this study, the Zimbabwe economy in autopilot aeroplane as more companies close shop (2013-14) and according to a survey which was carried out under the auspices of this study, it follows therefore that there will be one Null Research Hypothesis and one Alternative Research Hypotheses as below stated:

The Null Hypotheses  $(H_0)$  and the Alternative Research Hypotheses  $(H_1)$  in respect of this nstudy as aforementioned shall be:

#### Hο

The Zimbabwean economy is not in autopilot aeroplane as no companies are closing shop.

#### H₁

The Zimbabwean economy is in autopilot aeroplane as more companies are closing shop.

Given the overwhelming evidence obtainable elsewhere in this study, the overwhelming conclusion to be adopted in this study is to resoundingly reject the Null Hypotheses denoted  $H_0$  and resoundingly accept without preconditions whatsoever the Alternative Research Hypotheses, denoted  $H_1$  as above.

With the Conclusion now out of the way up next are the Recommendations designed to either reduce or eliminate the risks to have a working economy in Zimbabwe one more time.

#### V. RECOMMENDATIONS

In order to get the Zimbabwean economy working once more, the under listed measures must of necessity be implemented as a matter of extreme

urgency to spare the lives of many Zimbabweans from going under:

- The unattractive and investor unfriendly policies such as the chaotic Land Reform Programme and the xenophobic and Indigenisation Economic Empowerment policies, among others, must of necessity be destined for *kwamufiga nebwe* (meaning sending those acerbic policies to the graveyard and never again allow them to resurface in Zimbabwe).
- Dr, Grace Mugabe the spouse to His Excellency President Mugabe is fast becoming the biggest destabilising factor in ZANU PF unless His Excellency acts quickly to stop her in her tracks from further destabilising ZANU PF and its monopoly of power in the mainstream politics in Zimbabwe. She is setting a bad precedent in the party. She was merely nominated as the leader of the Women's League in the ZANU PF party and not yet in the party structures. Now the fact that she is already spewing unprintable abuses at Her Excellence Vice President Joyce Mujuru is kutitangira moto unopisa dzimba dzose vanhu voshaya pekugara (meaning playing with fire which has the potential to burn down the entire village to leave the villagers homeless which is what people do not want now and in the long term future (Phiri 2014).
- There is no way a baby born today can be a threat to an adult human being. This is what Zimbabwe is in comparative terms to the United States of America and the European Union who are in no man's doubt the emerging prefects of this modern world of increasing complexity. And throwing brickbats at either of these two is looking for trouble from which you can escape unscathed. Kuruma zamhu raamai iwe uchada\_kuyamwa\_(meaning a child biting the mother's breast when still in need of breastfeeding from the same mother). Regional leaders, save for His Excellence President Mugabe, do not throw brickbats at Obama and Cameroon of United States of America and United Kingdom respectively because they are by their very nature the custodians of foreign directive investment for which Zimbabwe is in desperate need of as testified by her extensively damaged and destroyed infrastructure and finally,
- Respect for democracy, rule of law and human rights will make you happily co-exist with the USA and EU among others. These three governance values form part of the civilisation and are the religion of these two emerging world prefects. For Zimbabwe any disrespect for any of these governance values will certainly come at her peril. Ndambakuudzwa akaonekwa nemboje pahuma (ignore wise counsel at your peril).

With the Recommendations out of the way, the Author will declare time for the Key Assumption which is up next in just a moment.

#### KEY ASSUMPTIONS VI.

In presenting this Paper, the Author would, right from the outset, wish to reassure the beloved Reader that all the facts and figures herein contained are stated as they are on the ground without fear, favour or prejudice.

There is no doubt from a Christian perspective that Zimbabwe and in particular the clueless ZANU PF government and the suffering masses of Zimbabweans that the three are in need of a short prayer to save them from the brutalizing challenges adversely affecting Zimbabwe left, right and centre. The Author will lead the prayer as below:

#### SHORT PRAYER FOR ZIMBABWE, ITS Clueless Political Leadership and the Suffering Masses of Zimbabweans, HOME AND AWAY

Ndopedza ndichiti ngatinamatirei Zimbabwe, vatongi vayo neruzhinji rweZimbabwe. Tenzi Mwari, mwanakomana wenyu Muponisi wedu haana kuvanza chiso chake kune avo waimutambudza nekumunyadzisa: Tipeiwo nyasha kuti mukutambura kwenguva ino tiwane kunyaradzwa nembiri yenyu ichiratidzwa: Kuburikidza naJesu Kristu Tenzi Wedu, Amen.

(meaning let us pray for Zimbabwe. Its political leadership and the suffering masses of the Zimbabweans, home and away as follows: Lord God whose blessed Son our Saviour gave his back to the smiters and did not hide his face from shame: give us grace to endure the sufferings of this present time with sure confidence in the glory that shall be reviewed: through Jesus Christ our Lord, Amen). (Pew Paper 2014).

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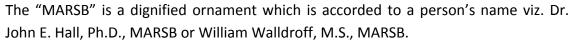
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- 3. Submission of Manuscripts,
- 4. Manuscript's Category,
- 5. Structure and Format of Manuscript,
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- 7. Use right software: Always use good quality software packages. If you are not capable to 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.
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- 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.
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- **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.
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- 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.
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- **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.



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- **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.
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- **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.

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#### 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
- $\cdot$  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.



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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.

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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 <u>definite statistics</u> 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

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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.
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#### **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)
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- 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.
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#### 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.



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#### 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.

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- 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
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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 accepted information, if suitable. The implication of result should he visibly described. generally 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.
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Topics	Grades		
	А-В	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



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