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Enhancing Regional Trade Potentials and Economic Cooperation Among the Saarc Countries: Exploring Major Challenges and Propositions

By Mohammad Jonaed Kabir, Mohd. Kamal Uddin & Habib Ullah

International Islamic University Chittagong, Bangladesh

Abstract- Sustainable economic growth of countries nowadays relies much on the regional economic alliance developed among countries. This type of integration is gradually spreading to different parts of the world including the South Asia. SAARC is an organization of South Asian countries, mainly institutionalized as an economic alliance to work with collaboration and accelerate their socio-economic development. But, since the inception of SAARC, the achievement in regional economic integration is insignificant and the level of intra-regional trade flow among SAARC countries is still very low compared to the rest of the world. The region accounts for a very insignificant share of world trade but persistent high levels of tariff barriers. The present study attempts to examine the prospects and briefly reviews and identifies constraints to intra-regional trade and modes of economic cooperation in the region. It aims to enhance cooperation amongst members in order to improve competitiveness and put forward a set of recommendations for the policy makers requiring relentless determination to make the alliance successful in future.

Keywords: SAARC, economic integration, challenges, intra-regional trade.

GJMBR - A Classification : JEL Code: A10

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Enhancing Regional Trade Potentials and Economic Cooperation Among the Saarc Countries: Exploring Major Challenges and Propositions

Mohammad. Jonaed Kabir α, Mohd. Kamal Uddin σ & Habib Ullah ρ

Abstract- Sustainable economic growth of countries nowadays relies much on the regional economic alliance developed among countries. This type of integration is gradually spreading to different parts of the world including the South Asia. SAARC is an organization of South Asian countries, mainly institutionalized as an economic alliance to work with collaboration and accelerate their socio-economic development. But, since the inception of SAARC, the achievement in regional economic integration is insignificant and the level of intra-regional trade flow among SAARC countries is still very low compared to the rest of the world. The region accounts for a very insignificant share of world trade but persistent high levels of tariff barriers. The present study attempts to examine the prospects and briefly reviews and identifies constraints to intra-regional trade and modes of economic cooperation in the region. It aims to enhance cooperation amongst members in order to improve competitiveness and put forward a set of recommendations for the policy makers requiring relentless determination to make the alliance successful in future.

Keywords: SAARC, economic integration, challenges, intra-regional trade.

I. INTRODUCTION

Most of the countries of the world are members of a bloc, and many belong to more than one. In South Asia, South Asian Association for Regional Cooperation (SAARC) is an emerging trading bloc. South Asia being one of the most densely populated regions in the world is a large regional bloc with huge potential. The eight member countries of SAARC (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) span a land area of 4,428,119 square kilometers with a population of 1,484 million people. In South Asia, regional trade was initiated through the Agreement on SAARC Preferential Trading Arrangement (SAPTA). Bilateral free trade agreements play an increasingly significant role in enhancing trade liberalization and economic growth in Asia. SAPTA has proper rules of origins and no formal dispute settlement mechanism. The fourth round of SAPTA negotiations was completed in 2002 and studies have indicated that the process has not been very effective as concessions offered have been less attractive (Mohanty, 2003). Conventional trade measures indicate that the region is engaged in trade with the outside world - not within the economies of the region. In a static sense, small countries may lose and large countries may gain from a free trade area. Findings indicate that, with the existing low level of bilateral and intra-original trade shares and low trade with South Asian countries, the gains from free trade arrangements in this region are likely to be minimal. Compared to the rest of the world, this region is not open enough in international trade, rather, it is very much inward oriented. Intra-region’s trade flow in this region is also very insignificant. The region accounts for a very insignificant share of world trade but persistent high levels of tariff barriers.

However, since the inception of SAARC, the achievement has been considered very insignificant and the level of intra-regional trade among SAARC countries is still very low (Ali and Talukdar 2009). With the present low level of intra-regional trade and the perceived competitiveness among the SAARC countries, a question has arisen whether regionalism would benefit the member countries. Very few studies are carried out in South Asian region to search for the basic problems faced by SAARC and the key factors of failure of SAARC; so, there is a need to carry out a study to find out the basic hurdles for SAARC and to suggest certain guidelines for the betterment. This study contributes to this literature by explaining further in-depth challenges of preferential trade liberalization in South Asian region. Moreover, this study attempts to analyze the potential of regional economic integration in South Asia under a broader and economic perspective.
II. Objectives of the Study

The objectives of the present study are described below:

1. To have a brief review on the SAARC and SAARC intra-regional trade prospects.
2. To identify the challenges in the intra-regional trade and other modes of economic cooperation in the region.
3. Take an attempt to analyze the potential of regional economic integration in South Asia to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields.
4. Aiming at enhancing cooperation amongst members in order to improve competitiveness.
5. Put forward a set of recommendations for the policy makers requiring relentless determination to make the alliance successful in future.

The challenging issues concerning regional trade liberalization are many, and to understand the ground realities, there is a need for having varieties of databases and adoption of number of suitable approaches. Hence it is much important to forecast the obstacles in liberalization of trade and achieving regional and economic integration in South Asia (Das, 2008). In this study the authors have attempted to examine intra-regional trade potential and thereby identify the shortcomings in the context of existing Intra-regional trade for future direction strengthening cooperation amongst member countries in order to improve competitiveness.

III. Research Methodology

This paper is an analytical one. Only secondary data has been used for this research work. Content Analysis Method, which is commonly known as the review of the previous literature, has been followed in the preparation of this article. Data related to SAARC activities and policies have been collected by focusing on trade and other economic issues from the Foreign Ministry of Bangladesh, Bangladesh Bank, Export Promotion Bureau Bangladesh, Bangladesh Bureau of Statistics, and Bangladesh Economic Review. Full use of relevant books, journals and internet sources is made in order to make this study informative and meaningful. Several global business and economic articles relating to the topic are studied and criticized. No empirical data is used. Some information has also been collected from the daily newspapers and Internet sources.

IV. SAARC – At a Glance

The South Asian Association for Regional Cooperation (SAARC) is a political and economical organization in South Asia. The objective of the establishment of SAARC is to provide platform to the people of Southern Asia to make joint efforts to promote harmony, conviction, and understanding among states (Alam et al, 2011). It is the largest regional organization established on December 8, 1985 by member states - Bangladesh, Bhutan, Maldives, Nepal, Pakistan, India, and Sri Lanka. Eighth country Afghanistan was added at the 13th Annual summit in 2005 on the request of India and became a member of SAARC on April 3, 2007. The idea of regional cooperation in South Asia was first raised in November 1980. The first concrete proposal for establishing a framework for regional cooperation in South Asia was made by the late president of Bangladesh, Ziaur Rahman, on May 2, 1980. Several factors such as political, economic, security and potentiality of mutual economic benefit through regionalism seem to have influenced President Ziaur Rahman’s thinking about establishing a regional organization in South Asia (Kishore, 1996). After consultations, the foreign secretaries of the seven founding countries met for the first time in Colombo in April 1981. The foreign ministers, at their first meeting in New Delhi in August 1983, adopted the Declaration on South Asian Association for Regional Cooperation (SAARC) and formally launched the Integrated Program of Action (IPA) in the five agreed areas of cooperation: agriculture; rural development; telecommunications; meteorology; and health and population activities. Later, transport; postal services; scientific and technological cooperation; and sports, arts, and culture were added to the IPA. SAARC was entered in regional trade agreement in 2004. The establishment of SAARC in 1985 was an attempt to reverse the conflicting tendencies of the post-independence era. The move was initiated by Ziaur Rahman in Bangladesh and taken forward by young leaders like Benazir Bhutto in Pakistan and Rajiv Gandhi in India. Before entering in the (RTA), South Asian Preferential Trading Agreement (SAPTA) was formed in 1993 and it would be changed into South Asian Free Trade Agreement (SAFTA) in January 6, 2004 on the 12th Summit at Islamabad (Ali & Talukder, 2009 and Chaturvedi et al., 2007).

V. SAARC - Economic Status and Intra-Regional Trade

Increasing rationalization of world trade and the fluidity of the emerging global system has increased trade within each trade bloc and those countries that do not belong to any trade blocs are likely to be the losers (Shreekantaradhy, 1993). This also provides a strong rationale for sustaining the SAARC vis-à-vis future trade prospects of South Asia. The South Asian region is the home of 23 percent of the world’s population comprising an area of only 3.8 percent of the total global land. Considering the market-size in terms of population, SAARC is one of the largest economic blocs in the world. This region covers almost 67 percent of the
The low income population of the world economy. South Asia’s economy encompasses traditional village farming, modern agriculture, handicrafts, a wide range of modern industries, and a multitude of support services. SAARC, tragically, is the world’s only region, which has failed to tap the potential for social-cultural exchange and economic cooperation, with the continuation of war and cold war in the region between India and Pakistan (ADB, 2005). Under the World Bank designated category, four economies namely Bangladesh, Bhutan, Maldives and Nepal, are least developed countries (LDCs); and India, Pakistan Sri Lanka are considered developing countries. On the basis of income Bhutan, Maldives and Sri Lanka are lower-middle-income countries; and Bangladesh, India, Nepal and Pakistan are low-income countries (Das, 2007; World Bank, 2007). Conventional trade measures indicate that the region is engaged in trade with the outside world- not within the economies of the region. The region’s export and import shares destined to and originated from, this region have been in declining trend over the last few years. Compared to the rest of the world, this region is not open enough in international trade, rather, it is very much inward oriented. Intra-region’s trade flow in this region is also very insignificant. This is partly because the major economies such as India, Pakistan and Bangladesh are not outward-oriented (Ali, E. & Talukder D. K. 2009). The very concerning matter to the researchers is that in the regional groups, intra-regional trade accounts for a very low proportion percent of total trade and a low and insignificant level of involvement in bilateral trade by the region’s large countries such as India and Pakistan.

The member countries have diverse economic conditions and India and Pakistan are the two largest economies in terms of the regional GDP and population. Regional trade can increase significantly with regional cooperation. Gravity models indicate that India’s bilateral trade potential with its neighbors remains largely untapped (Batra 2004). India has nearly 77.8 % of the region’s GDP, accounts for 40.3 % of its trade and 75.8 % of incoming foreign direct investment (Kumar, Rajiv 2009). India’s dominance in nearly all respects is a central and special feature of the region that can be seen as both a positive and negative feature in the context of promoting greater economic cooperation. India’s size and central location in South Asia makes the region quite unique and complicates the case for regional integration. For instance, in 2006 India accounted close to four fifths of the regional GDP by value, while Bhutan and Maldives accounted for less than one-hundredth. Pakistan, the next largest economy after India, accounted for 11 % of the regional GDP, followed by Bangladesh and Sri Lanka. The low share of South Asia in total world trade is largely driven by the low share of India as well as Pakistan, Bangladesh and Sri Lanka in world trade flows. Within the region too, the persistence of trade barriers has led to abysmally low levels of intra-SAARC trade.

**Figure**: SAARC country shares of regional gross domestic product, 2006

*Source: World Bank (2008), World Development Indicators 2008, Washington, DC*
The following table shows the country-wise Contribution to GDP by Sectors. It is found that decline in the share of agriculture sector was compensated by an increase in the share of both the industrial as well as services sectors. The share of agriculture sector has decreased and that of the services sector has risen over the last two decades for almost all the economies. Services play a major role in all modern economies. Indeed, it would be difficult for any economic activity to take place without services such as telecommunications, banking and freight logistics. There has been a greater increase in the share of the industrial sector over the period stated here which shows a major change in the structural economies of SAARC (Cited from Sawhney Upinder, 2010).

**Table:** Contribution to GDP by Sectors

<table>
<thead>
<tr>
<th>Country</th>
<th>Agriculture (% of GDP)</th>
<th>Industry (% of GDP)</th>
<th>Services (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>31.1</td>
<td>25.4</td>
<td>19.0</td>
</tr>
<tr>
<td>Bhutan</td>
<td>38.0</td>
<td>31.6</td>
<td>18.7</td>
</tr>
<tr>
<td>II India</td>
<td>30.5</td>
<td>26.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Maldives</td>
<td>-</td>
<td>-</td>
<td>6.2</td>
</tr>
<tr>
<td>Nepal</td>
<td>50.9</td>
<td>39.9</td>
<td>33.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>26.0</td>
<td>27.3</td>
<td>20.4</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>26.3</td>
<td>21.1</td>
<td>13.4</td>
</tr>
</tbody>
</table>


Another data on average annual growth of different sectors gathered from Asian Development Bank (2009), *Key Indicators for the Asia and the Pacific*, show almost similar picture. Agricultural sector in all the countries has grown at a slower pace as compared to the industrial and services sector. The rates of growth of industrial and service sectors show similar trends in all the economies. As a region, the South Asia’s growth status was dominated by the services sector, but industry sector growth accelerated in regional big economies India, Pakistan, Bangladesh and Sri Lanka, reinforcing the sustainability of high growth rates into the future (Central Bank of Sri Lanka, 2008).

**Table:** Average Annual Growth of different Sectors

<table>
<thead>
<tr>
<th>Country</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2.7</td>
<td>3.5</td>
<td>7.2</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1.8</td>
<td>2.4</td>
<td>5.3</td>
</tr>
<tr>
<td>India</td>
<td>3.1</td>
<td>2.7</td>
<td>6.1</td>
</tr>
<tr>
<td>Maldives</td>
<td>2.4</td>
<td>3.1</td>
<td>9.5</td>
</tr>
<tr>
<td>Nepal</td>
<td>2.6</td>
<td>3.4</td>
<td>7.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>4.5</td>
<td>3.1</td>
<td>4.7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2.0</td>
<td>2.0</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: Adapted from WDI, 2009 and Asian Development Bank (2009), *Key Indicators for the Asia and the Pacific*, www.adb.org/documents/books/key_indicators.

Intra-SAARC trade is not at the satisfactory as per the expectation level. The South Asia region remains a small player in global markets, accounting for a little over 1% of total global trade. During the period 1995 to 2006 South Asia’s share in world merchandise exports marginally increased from 0.9% to 1.3% (WDI 2008). During 1991 to 2006, the intra-SAARC merchandise trade has been stagnating between 3-5% of the region’s total world trade.
Figure: Share of intra-regional trade in total trade of SAARC, 1991–2006

Source: Calculated with data from IMF DoTS

However, the recent trade trend shows that the intra-regional trade volume is fluctuating for Sri Lanka, increasing for India, whereas it is falling for Bangladesh and Pakistan due to high level of border protection maintained by India and partly because these countries are trying to strengthen their trade with industrial countries outside the region (Pitigala, 2005).

VI. CHALLENGING ISSUES AND CONSTRAINTS FACING SAARC

a) Increasing Energy Deficit

The significant driver of economic integration in South Asia is the need for greater energy security. Shortages of energy have an adverse impact on industrial and economic growth. All the member countries are heavily dependent on energy imports and even more specifically on hydrocarbon imports from West Asia. The first and foremost energy challenge faced by the region is persistent energy deficit. The entire region faces either crude oil or petroleum product supply deficit. Even natural gas consumption is very limited in the region primarily due to the lack of infrastructure like gas pipelines. Member countries currently using natural gas also face shortfall. Bangladesh and India are currently natural gas deficient. The suggestion to measure gas reserves of Bangladesh holds promise. At the greater Asian regional level the SAARC economies can be seen to offer a unified market for hydrocarbon imports from Central and West Asian gas and oil fields by overland pipelines. Energy trade in the region can also be seen as a confidence-building measure and a lock-in mechanism for irreversible economic interdependence (Pandian 2005). India is a pioneer in exploring renewable energy sources like solar, wind energy etc. There are also other areas where India has proved its expertise. For instance, while countries of South Asia use bio-mass inefficiently, India is a leader in biomass energy resources.

b) Tariff and Non-tariff Barriers

Rules of origin in preferential or free trade agreements help determine the products for tariff preferences, but tighter rules of origin often reflect protectionist intention. The co-existence of high tariff barriers and tight rules of origin raises the risk of trade-diversion (Kumar, Rajiv 2009). The second RTA lacks the mandate and prospect of ensuring greater relaxation of trade relations between the member countries. In the words of a former Indian senior Foreign Service bureaucrat SAFTA is a ‘wholly inadequate framework for trade liberalization within South Asia.’ According to him very low range of tariff cuts, long periods of tariff reductions and higher number of goods on the ‘negative list’ are the major constraints in realizing a genuine free trade regime in South Asia. (Rajiv Sikri, 2009). Non-Tariff Barriers are restrictive to trade and not only add to costs but also increase time for delivery. Subject to “enabling environment” a review of this situation would be desirable. A review of all the non-tariff barriers shows that India’s certification procedures are convoluted, leading to import constraints. This is the main concern and fear of other SAARC countries. But the process has started with textile and food processing in Bangladesh, and cement in Pakistan. However, the tariff rates among various sectors of the economies of various member countries of SAARC is declining very fast with the passage of years from 1995 to 2006 and up till now it is...
decreasing, that facilitate and enhance the trade activities over the borders of different member states.

c) Poor Port and Transport Infrastructure

The poor port and transport infrastructure is one of the major reasons for low-integration in the region which can be referred as an obstacle to growth for the region (De, P., 2005). One estimate shows that if South Asia’s infrastructure capacity is increased even halfway to East Asia’s level, then intra-regional trade can increase by 60 % (Wilson & Ostuki 2005). Delays in transit due to road or port congestion, customs procedures and other non-tariff barriers raise the costs for exporters. The limitations are in both physical (lack of cargo/ship handling equipment) as well as nonphysical infrastructure (excessive and cumbersome border procedures). The structural constraints may be presented such as low export supply capabilities, shortage of investable resources, technological backwardness, as being responsible for the slow growth of intra-SAARC trade. These factors would inhibit not only intra-regional exports but also overall export growth. Lack of market access is another constraint. Though there are attempts to remove NTBs these remain by far the most significant barrier to trade. Such NTBs have survived due to the gap between policy decisions and its implementations within SAARC. LDCs such as Bangladesh should be given zero-duty market access on a non-reciprocal basis. To enhance Intra-SAARC business and trade, adequate infrastructure is needed for transportation of goods. Regional banking facilities and mutual certification measures and standards might help expedite intra-regional business transactions.

d) Political Issues

SAARC has not been able to realize its full potential because of the existence of serious political differences and disputes in the region giving rise to tensions and mistrust among member states. Major disagreements at the political levels among the South Asian countries acted as a constraint in building effective cooperation among these countries. For example, Harshe (2005) mentioned that India refused to attend the 13th summit of SAARC and the reason was shaped by two main factors. First, recently events occurred in Bangladesh such as attack on Sheikh Hasina, the deaths of Bilal-ud-din, a journalist and former finance minister Shah A.M. S Kibria in two separate bomb blasts. Second, through suspension of the democratic and constitutional processes King Gyanendra’s seizures of power in Nepal also promoted India to refrain from sharing the platform with the Gyanendra regime. Although all countries follow the democratic procedure in forming governments, armed forces of some of the countries have an undue influence on state policy in this region. Some of the countries are involved in open hostilities and various bilateral issues causing temporary tensions in the region. All these SAARC countries were colonies of imperial power at a certain stage in their political history. All these countries have some forms of ethnic problems since the countries are to a varying degree, ethnically heterogeneous. Afghanistan has also seen enormous instability and disruption over the last three decades.

e) Disintegration in the Culture and Cooperativeness

Differences in cultural values and customs among the member countries might have impact on the imbalanced SAARC regional development. The Addu Declaration dwells on “the plurality of cultures and diversities within the region”, emphasizing the “need to promote intercultural harmony through greater contact and interaction between peoples” (17th SAARC Summit in Addu City, Maldives, SAARC: Towards Meaningful Cooperation). South Asia can be poised at a critical juncture in its history in that it has in hand the norm-setting process in different areas and is now in the phase of active implementation. The very critical issue to the success of regional economic cooperation and integration is the development of the culture of cooperative thinking. India shares ethnic, language, cultural and religious histories. In order to promote regional cooperation, India binds the neighboring states in ties of different networks through the project of SAARC. It is true that it faces numerous developmental challenges; but it is also a fact that South Asian countries may count among the relatively faster-growth regions capable of substantial economic achievements if integration of the Culture and Cooperative attitude could be established significantly.

f) Facts of Intra-regional and Inter-regional Connectivity

Connectivity is a vital imperative for South Asia’s future and its acceptance at the highest political levels will be an essential component in the region’s development. Connectivity is not a narrow idea and should be perceived as a key to regional development. As a way forward, it includes much more that issues including travel. Trade issues are dependent on visa issues. And visa processes are so cumbersome that it becomes difficult for people to interact with each other. The danger inherent in a move towards greater regional connectivity however, is a spurt in terrorist activity that is bound to have a global as well as regional impact. Terrorism has developed its own deadly. Sri Lankan ports, geographically in the virtual centre of the Indian Ocean Region, provide strategic economic connectivity between East Asia, South-East Asia and the West. Terrorism across the Indian Ocean Region collaborates with globalised criminal cartels specializing in people-smuggling, illegal arms-transfers, drug-trafficking, “kappaan” collections, and passport/visa/credit-card fraud and cyber crime. Somali pirates pose security and livelihood threats to Indian, Maldivian and Sri Lankan fishing communities.
g) Intra-countries Tensions and Conflicts

Conflicts among the member states or the neighboring states are quite unacceptable in building SAARC alliance and harmony. Pakistan and India the two prominent countries in the region are commonly known as traditional rivals, since 1947. The most important conflict is the Kashmir issue. Wars of 1965, 1971 and Kargil war broke between Pakistan and India. Indian government opposed Nepal’s step towards gaining atomic energy i.e. weapons from China. Indian government started to compassionate a specific class in Sri Lanka (Tamils) that raised many conflicts between these countries. There exist conflicts between India and Bangladesh such as disputes on Farrakka barrage, on river island of Mahurichar, on building fence on the international border by India. All these issues are still unsolved.

h) Low level of integration in South Asia

Over the last fifteen years, between 1991 through 2005, the intra-SAARC merchandise trade has been stagnating between 3-5% of the region’s total world trade (World Bank, 2006). Much of the low level of intra-regional trade observed in South Asia stems from the restrictions directly imposed within the agreements. Asymmetric benefits and costs associated with regional integration create political tension and leads to defaults in commitment among the member countries. In South Asia, in particular, the economic gains from integration are perceived to be asymmetric and potentially adverse in the smaller members. SAARC remains marginalized at the periphery of the emerging Asian resurgence. The SAARC has been bogged by traditional problems and disputes among its member countries for which it has not been able to take advantage of synergies. It has not achieved satisfactory results within its present parameters of regional cooperation. It has also not succeeded in establishing meaningful cooperation with other regional groupings in South East and Central Asia and around the Gulf. It also faces resource constraints. All these have made the SAARC process slow, uncompetitive and inward looking.

i) Trade Creation and Trade Diversion

Regional trade agreements can be welfare reducing when it results in substantial trade diversion, and given the relatively high levels of protection in the region, most analysts predicted that trade diversion would be a dominant effect of SAFTA (Hirantha, 2003). Formation of a free trade area in South Asia has raised intensive debates on welfare gains and losses from this arrangement by member countries. Welfare gains arise from trade creation resulting from reduction of tariffs on imports from the rest of the world. Differences in welfare gains among the countries depend on the trade creation and trade diversion effects. Factors that influence trade creation are the elasticity of import demand, the pre-agreement level of protection and import from the rest of the world. It is argued that large countries like India and Pakistan have relatively high levels of trade with the rest of the world and their import demands are relatively elastic and, therefore, they gain more from trade creation than they lose from trade diversion. In this entire schematic, the role of India is very critical. India is now making very strong strides on the economic front. It is a major source of reverse flow of technology as depicted by the huge jump in the export of information technology. Small countries like Bangladesh and Sri Lanka lose because of relatively low level of trade creation and diversion capability. The other three countries Bhutan, Maldives and Nepal have very insignificant influence over intra-regional trade due to their very small size of their economy (Hossain 1997; Newfarmer and Pierola 2007).

j) Cross Border and Regional Migration and Connectivity

There has been no cross border connectivity among the member states. This not only affects the economics of scale of its operations but also makes linkages highly cost ineffective. India’s geographical location is key to the physical linkages to the entire South East and East Asia. In the context of regional road corridors, one of the most crucial non physical barriers has been the lack of bilateral transport agreements to facilitate uninterrupted movement of goods and vehicles across the borders between India and Bangladesh, as well as between Pakistan and India. As a result, goods are required to be transshipped at the border between the trucks of neighboring countries. There are ample opportunities in regional inland waterway corridors, maritime transport, and air transport that could not only integrate the region but link this region with other regions very effectively.

k) Economic Transition

Structural transformation of the South Asian economies can also be addressed here as a role influencing SAARC’s effectiveness. The share of agriculture in GDP has declined steadily, while shares of industry and services sectors have increased significantly in almost all the South Asian countries. It is noteworthy that despite the fall in its relative importance over the years, the performance of agriculture continues to influence the overall growth rate of GDP in the South Asian countries. Growth has been sluggish in the agricultural sector whilst the growth in the industrial sector has remained much below its potential. An increase in private debt, excessive liberalization of the financial sector, a weak banking sector, poor governance and political instability were the main causes of the South Asian economic crisis. Regional integration agreements and free trade agreements in particular, may also fail when the impact of liberalization is asymmetric across partners and corrective redistribution mechanisms are absent. Savings and
investment rates in the member states were found very low in comparison to the rates prevailing in other parts of Asia, especially in the East Asian countries and also tended to fluctuate widely on a year to year basis. Again there was considerable variation across countries in the savings and investment rates as well as in their changes.

I) Trade Intensity Index and Complementarities

Trade intensity index concentrates attention on variations in bilateral trade levels that result from differential resistances by abstracting from the effects of the size of the exporting and importing countries. The higher value of this index means the higher bilateral trade (Drysdale and Garnaut, 1982). In order to explore the potentials of intra-regional trade expansion within SAARC, Bhalla and Bhalla (1996) have estimated trade intensities for the SAARC countries individually and for the region as a whole. They have found that except India, all other major SAARC countries like Bangladesh, Pakistan and Sri Lanka show a low and declining trend of trade intensity index. Das (2007) has found that the evidence of trade complementarities in South Asia is mixed. India’s and Pakistan’s exports are complementarities to the imports of some South Asian countries such as Bangladesh and Sri Lanka. Other economies show efficiency in only a small number of export areas and cannot be considered complementarities to India’s imports, or any other country’s imports. Increase in Trade Intensity Index for India seems to be due to trade reforms as part of economic reform resulting in the increase in economic growth. The declining values of trade intensity for other countries suggest low trade complementarities among themselves as well as continuing barriers to intra-SAARC trade. Lacking in complementarities in trade, South Asian economies compete in their export markets in a narrow range of products, particularly in textiles and apparel and other light manufactured goods. Thus, the prospects of regional integration are seriously inhibited by this trade structure.

m) Challenges to Sino-SAARC Links

China shares an extended border geographically with five of the eight SAARC countries, namely Afghanistan, Pakistan, India, Nepal and Bhutan. ASEAN’s economic success was facilitated by its planned association with China, Japan, and Republic of Korea called “The +3” arrangement. “The 3” have Observer status in SAARC. Coordinated international action against globalized corporate criminal activities posing extensive non-traditional security threats in the Indian Ocean Region should be a major priority. ASEAN and European Union have already had seminar interactions/ dialogues with SAARC for mutually beneficial cooperation. China has also contributed to the SAARC Development Fund. China bears a number of intrinsic connections to the South Asian region in the context of historical and geographical issues (Rahul Karmakar, 2008). At the 14th SAARC Summit, China outlined a five-point proposal for improving Sino-SAARC cooperation, a plan which consists of a collaborative approach to the issues of poverty alleviation and disaster relief, as well as an attempt at promoting a multilateral human resources training programs, bilateral infrastructure development and bilateral energy cooperation. A great deal of debate was held around the question of what role China should play in relation to SAARC. Since China’s initial expressions of interest in aligning itself more closely with SAARC, three possible positions have frequently been considered in this respect, namely those of dialogue partner, observer and full member. China’s request for observer status in 2005 was supported by several SAARC states including Nepal, Pakistan and Bangladesh but gave rise to issues concerning the desired extent of its participation in SAARC. The other members of SAARC have long held suspicions of hegemonic tendencies on India’s part, harboring fears that the regional giant intends using SAARC as a means of exercising control over its neighbors. China’s inclusion would facilitate a greater balance of power by diminishing India’s dominance in South Asia. However, the restoration of a balance of power in the region would facilitate greater openness to regional trade and investment (particularly with India), thereby benefiting the region as a whole.

VII. Policy Implications of the Study

1. Lower tariff rates should be established. The tariff level in SAARC countries is still high. Therefore, to reap the fullest benefit of the trade bloc tariff could be reduced further. However, the tariff rates existing in different sectors of the economies of the member countries of SAARC is till now declining, that facilitates and enhances the trade activities over the borders. Lowest tariff rates are prevailing among the three renowned economies - Bangladesh, India, and Pakistan. At last the government minimizes the tariffs under the statutory regulations. In Pakistan tariff rates are reduced like that of the leading states of Nepal and Sri Lanka.

2. Adequate infrastructure should be developed for smooth transportation of goods and enhancing intra-SAARC trade and business. Intra-regional banking facilities and mutual certification measures and recognized standards might help expedite regional business transactions. In the energy sector, transit facilitation measures for oil and gas pipelines and other energy resources including access to international markets should be pursued in keeping with the region’s interests without succumbing to outside pressures for vested interests. Procedural constraints include lengthy and complicated customs clearance procedures that cause delays at
ports, thereby disrupting delivery schedules and increasing costs. These constraints, which are responsible for the low volume of trade and also breed corruption, should be removed.

3. The political matters and conflicts surrounding the countries of a South Asia draw a question of uncertainty and challenge to the formation of SAARC. For peace and tranquility in the region efforts will have to be made to promote mutual trust, confidence-building and conflict resolution. The realization of durable peace and the future of economic integration through SAARC depend upon the ability and interest of South Asian leaders to resolve domestic as well as long-standing differences through peaceful deliberations. For an enabling environment, South Asia must free itself of tensions, conflicts and confrontations and escalating military budgets. SAARC could be an appropriate forum to generate mutuality of interest and common benefit in regional approach. Such conflicts can be handled by the mutual agreements among the SAARC member states. That will be beneficial for both of the bilaterally conflicting states. Combined efforts of Pakistan and India would be able to facilitate trade by solving political and economic issues. Their combined efforts improve trade by eliminating visa problems, tariff and nontariff obstacles, by exploring various other routes of trades and by developing relations among financial institutions (Sheel Kant Sharma, 2011).

4. The issue of trade imbalances among the SAARC countries should be approached in a pragmatic manner. Viewing imbalances from a negative connotation could become counterproductive to the process of trade integration in the SAARC. SAARC countries were exposed to higher costs due to possible extra-regional sources of supply for many of their import requirements. The cost of non-cooperation within SAARC could be high. Larger countries' exports to smaller countries' could thus be viewed as a catalyst in promoting industrialization in smaller countries' as well as stimulating the overall development process. For reducing the trade imbalance, it would require an agenda to build production and export supply capabilities in the smaller countries of SAARC.

5. South Asia is composed of varied and interacting cultures, civilizations, and ideas that can become the stepping stone towards a common South Asian identity. In this context, the journey of South Asian University a thankful initiative of the Prime Minister of India commenced in Delhi its first session in 2010, will go a long way in bringing together the academia and younger generations of South Asia. The project envisages in the fullness of time campuses in all SAARC countries and is ambitious enough to see the enrolment of South Asian students to go up to 5000. The SAARC needs to address the critical question of repositioning itself as a community in the changing Asian and global context. In due course, the SAARC needs to explore the possibility of becoming an essential link in the new “Asianism”. It is pertinent to reflect on SAARC’s past successes and failures and also formulate a vision for the future.

6. Intra-regional travel fares need to be standardized and more intense dialogues are required with regard to SAPTA and SAFTA. It is now increasingly felt that visa requirements must be waived for all SAARC citizens while traveling within the region and in case of security concerns, people must at least be allowed to apply for VISAs at the point of entry. The SAARC Visa Exemption Scheme that was initiated in 1988 and became operational on 1 March 1992 was designed to facilitate closer interaction and cooperation among the peoples of the region. Adequate measures to implement relevant provisions of SAARC Conventions against terrorism, arms smuggling, narcotics trade, human trafficking, and illegal financial transactions need to be developed. Economic connectivity needs to extend beyond South Asia as well.

7. Establishment of a SAARC Investment Area would encourage the business community of the SAARC region and also the international investment community to explore the possibilities of finding optimum locations for their investment activities in different countries of the South Asia region. Building a regional technological base in different phases would meet the challenges of technologies and strengthen export supply capabilities within SAARC. Technological cooperation among the SAARC countries is prerequisite for building a common platform facilitating investment area. Combined efforts of Pakistan and India may enhance trade by solving political and economic issues. Their combined efforts improve trade by eliminating visa problems, tariff and nontariff obstacles, by exploring various other routes of trades and by developing relations among financial institutions. (Naqvi & Schuler, 2007)

8. SAARC needs to actualize a vision of integration that expands security, economic opportunity and political freedom throughout South Asia and in its neighborhood. This will imply willingness on the part of member states to have a little less sovereignty, more engaged regional diplomacy, more consistent support to South Asian Economic Community, and a well-structured security dialogue and a concrete plan of action for all this. Through wisdom and foresight, the SAARC leaders can work with their counterparts from neighboring regions for establishing inter-regional connectivity, building a peaceful, increasingly cooperating and prosperous
Asia where each country and region has its fair part. This will enable member countries of the SAARC to optimize prospects of growth and prosperity by fostering such cooperation within the SAARC framework.

9. The South Asian region has been harshly hit by terrorist activities. It is recommended that the region should consider the possibility of establishing a multilateral mechanism to effectively combat terrorism. It is important that political leaders of the SAARC countries embrace both a vision and a strategy for change in political atmosphere and economic setting. Strategic decision-making is required rather than short-term partisan tactics. Beyond trade and investment, there were other opportunities available now to the SAARC for cooperation with Asian countries outside the region in areas such as terrorism, drug smuggling, environment, rural development and poverty reduction. The SAARC countries could also develop with neighboring countries sister city relationships and sister province relationships.

10. With a view to attracting investments, the countries in the SAARC region have effective measures initiatives. Though foreign direct investment inflow is increasing in the SAARC region, it is still low in volumes. Therefore, adequate steps could be taken to attract more FDI into the region. Progressive removal of trade barriers within the region keeping in view the experiences of other regions, global economic trends and international commitments undertaken by the member states. Regional integration will provide a larger market and also scope for intra-industry trade. They must build capacity to foster economic growth not only within each country but also in the entire region.

VIII. Conclusion

The success of states in today’s world is not so much measured in terms of capacity for defending borders or creating uniquely national institutions, but in terms of ability to adapt to regional and global trends, promote exports, attract investments, and skilled labor, provide a beneficial environment for transnational companies, build attractive institutions of research and higher learning, wield political influence on the regional and global scene, and also brand the nation culturally in the international market-place (Stein Tonnesson, 2004). Regional cooperation agreements may sometimes be difficult to achieve or fail to deliver results owing weak institutions and the lack of proper enforcement mechanisms for ensuring the fulfillment of commitments. The rationale for regional cooperation is based on a number of factors, not all of which are necessarily economic in nature. In many cases, regionalism brings the same benefits, however on a much smaller scale, as those resulting from multilateralism. (Islam and Chowdhury, 2012).

Indeed, increasing rationalization of world trade and the fluidity of the emerging global system has increased trade within each trade bloc and those countries that do not belong to any trade blocs are likely to be the losers (Shreekantaradhya, 1993). Expansion of trade as well as efficiency and improved quality of exports would benefit the countries participating in the regional co-operation effort. (A. R. Kemal 2004). This study highlights the main trade barriers among SAARC member states. Cooperation between the SAARC and its neighboring countries is both essential and inevitable. This would firm up connectivity and enable its member countries to leverage the opportunities provided by the current Asian dynamism. SAARC as a regional institution needs to foster and consolidate the process of regional cooperation and integration within itself. But this task should be undertaken against the challenging backdrop of deepening of globalization process, resurgence and growing dynamism of Asia, new outward looking trends and changing realities in South Asia. Intensifying cooperation between countries and creating a viable regional organization can facilitate peace, stability, and progress. Indeed the prospects for SAARC are better today than perhaps at any time in its history. In order to achieve the objectives the SAARC would have to evolve into a full-fledged ‘regional entity’ that can cultivate peace in the region. The union should allow free movement of people; common currency and common foreign and economic policies which ultimately will sow the seeds of peace and prosperity.

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1. Asian Development Bank (2005), Regional Cooperation Strategy and Programme, South Asia (2006-08), ADB.


11. Hirantha (2003), being a notable exception, finds evidence of significant trade creation under SAPTA using the gravity model analysis and no evidence of trade diversion effect with the rest of the world.


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Abstract - This study, exchange rate management and the survival of the industrial subsector of Nigeria, identifies weak productive base as a major problem facing the industrial sector. In view of the above problem, the objective of the study is to examine how devaluation of the naira affects the survival of the industrial subsector in Nigeria (1990-2013) with the aim of proffering solutions of increased productivity in the economy. The study is anchored on balance of payment theory. Secondary data used for this study were sourced from CBN statistical bulletin. Ordinary Least Square (OLS) regression method was used to examine the relationship between manufacturing capacity utilization (dependent variable) and exchange rate, export, GDP and inflation (independent variables). The result shows that manufacturing capacity utilization has positive relationship with exchange rate and export. The study recommends that manufacturing firms should embark on production of quality goods and the Government should encourage the development of local industrial subsector.

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Abstract: This study, exchange rate management and the survival of the industrial subsector of Nigeria, identifies weak productive base as a major problem facing the industrial sector. In view of the above problem, the objective of the study is to examine how devaluation of the naira affects the survival of the industrial subsector in Nigeria (1990-2013) with the aim of proffering solutions of increased productivity in the economy. The study is anchored on balance of payment theory Secondary data used for this study were sourced from CBN statistical bulletin. Ordinary Least Square (OLS) regression method was used to examine the relationship between manufacturing capacity utilization (dependent variable) and exchange rate, export, GDP and inflation (independent variables). The result shows that manufacturing capacity utilization has positive relationship with exchange rate and export. The study recommends that manufacturing firms should embark on production of quality goods and the Government should encourage the development of local industrial subsector.

1. Introduction

The exchange rate, which is a price of the domestic currency in terms of other currency, is usually determined in principle by the interplay of supply and demand in a free market environment. In practice, no currency is allowed to float freely by the monetary authorities, so nation’s monetary authorities regulate currency between the fixed and floating exchange rate systems and other regimes, such as dual managed. In Nigeria, according to Obadan (2002), past exchange rate policies have been designed with a bias towards demand management, as the supply side has always been limited by the monoculture base of the economy, where foreign exchange inflow is dominated by oil export proceeds. The main objectives of exchange rate policy in Nigeria are to preserve the international value of the domestic currency, maintain a favourable external reserve position. According to Obaseki (2001) the central bank has implemented different techniques in the management of the exchange rate of the naira. In low domestic output and high import levels of goods and services, the pressure in the foreign exchange market has been the inability of the manufacturing sector to increase its levels of output. Nnanna (2002), states that the subsector has failed to produce enough import-substitutes that would have helped to switch demand away from the foreign products to the domestic substitutes. Also, the sub-sector has failed to expand exports to earn foreign exchange which would have increased the supply base thus, enhance the economy’s external balance. It is acknowledged however that this failure by the local manufacturing industry is the direct result of the lack of a conducive environment and infrastructural deficiencies in critical areas of production, like erratic power supply, bad roads. This work looks at exchange rate management and survival of industrial subsector in Nigeria between 1990-2013, with particular reference to the manufacturing subsector.

Exchange Rate management varies from time to time according to market dynamism, where supply and demand are unstable. There is floating exchange rate which is market determined, according to basket of currencies: The Central Bank allows exchange rate of naira to other currencies to be determined by market forces. This makes the currencies of other countries to be part in determining the value of the naira. However, the mechanism with which the conversion takes place is hinged on rate of industrial productivity where our finished goods need to be exchanged with other countries. Nigeria as a developing nation produces less finished goods need to be exchanged with other countries. Nigeria as a developing nation produces less and imports more of the output used in industry, this affects the rate of industrialization and the exchange rate. Between 1990 to 2013 Nigeria has passed through series of exchange rate control, because productive base of the economy is weak, so the rate of exchange of naira to other currencies is weak, and this has direct proportionality between the exchange rate of naira and solidity of the productive base of the economy. Incidentally, exchange rate has been changing against the value of the naira consistently since 1990, this has adverse effect on manufacturing capacity utilization, exchange rate, export, Gross Domestic Products and rate of industrialization. Therefore, this study seeks to critically examine the extent to which exchange rate management affects the survival of the industrial subsector in Nigeria economy between 1990 to 2013.

The broad objective of the study is to ascertain the extent to which exchange rate management affects the survival of industrial subsector in Nigeria between 1990 and 2013, while the study specifically seeks. To examine how devaluation of the naira affected survival of industrial subsector in Nigeria between 1990 and 2013.
a) Hypothesis

H₃: Devaluation of naira affects the survival of industrial subsector positively.

II. Review of Related Literature

a) Conceptual Review

Because of the importance of exchange rates, governments take active interest in their determination, exchange rate management is associated with currency transactions designed to meet and receive overseas payment. According to Kofi Bofi (2013) effective foreign exchange management improves profitability. Beyond these transactions, foreign exchange management requires monetary authorities to understand the relevant factors that influence currency values and how they can be managed in order to optimize profit. The study considers some of these relevant variables as gross domestic product, exchange rate, export, manufacturing capacity utilization, rate of industrialization, and rate of inflation with regards to their contributions to the survival of industrial subsector. Exchange rate is the price of domestic currency in terms of other countries currency plays a vital role in connecting the price systems in different countries, thus enabling traders to compare prices directly (Darlington, 2014). Manufacturing capacity utilization, this is the extent to which a nation or enterprises actually uses its installed productive capacity. Economically, if market demand grows, capacity utilization will rise, if demand weakens, capacity utilization will fall (Wikipedia). According to Paul Samuelson (2002) inflation rate is the percentage of annual increase in general price levels of goods and services. GDP is the monetary value of all the finished goods and services produced within a country’s border in a specified period, usually one year. Export as well is a function of international trade whereby goods produced in one country are shipped to another country for future sale or trade. The sale of such goods adds to the production of nation’s gross profit (Investopedia 2014). Rate of industrialization which is the process in which a society or country transforms its self from a primarily agricultural society into one based on the manufacturing of goods and services, individual manual labour is often replaced by mechanized mass production and craft- men replaced by assembly lines. This study seeks to x-ray the contributions of these variables as they concern effective exchange rate management visa-a-vise survival of the industrial subsector in Nigeria between 1990 to 2013.

b) Theoretical Framework

This study adopts (BOP) balance of payment theory (www. losrjournal.org) this theory explains that exchange is determined by the capital flow arising from international trade in goods and service and financial assets in such a manner that the balance of payment equality is maintained at all times. It thus, uses the balance of payment equality as a condition of equilibrium in the foreign exchange market. This theory holds free of this study in that capital flow can only be increased when the weak productive base captured as one of the major problems of this study is strengthened for mass production that will ignite increase in demand of finished goods with direct increase in countries export.

c) Empirical Review

A number of scholarly works have been carried out on exchange rate management, these include: Obadan, (2005), carried out a research on the reason for constant fluctuation of exchange rate in Nigeria to discredit of the Naira. He interviewed 210 senior employee of central bank of Nigeria Lagos. 190, representing 90.48% agreed that constant fluctuation of the naira with respect to other currency especially British Pounds and U.S Dollar greatly undermines the value of the naira while 20 representing 9.52% disagreed.

Moser (2005:) carried out a research on why manufacturing firms and there output in Nigeria often fall below their counterparts in other developing countries in the area of cost of input minimization. He selected Green Turtus Apapa Lagos for his study. Of the 108 middle and the senior employee studied, 73 representing 67.59% agreed that cost of production is very high in Nigerian manufacturing firms while 35 representing 32.14% disagreed.

Masha and Adamkbe (2003:) carried out the research on whether Dutch Auction System affects manufacturing firms. They carried out their research in Aluminum Manufacturing Company (ANAMMCO) Emene Enugu. 77 senior and middle employees were interview. 52 representing 67.53% agreed that Dutch Auction System affect the productivity of manufacturing firms while 25 representing 32.47% disagreed. Morley (1992) analyzed the effect of real exchange rate on output for twenty eight developing countries that have devalued their currency using a regression framework. After the introduction of controls for factors that could simultaneously induce devaluation and reduce output including terms of trade, input growth, the money supply, and the fiscal balance, he discovered that depreciation of the level of the real exchange rate reduced the output. In Nigeria Odusola and Akinlo (2001) examined the linkage among exchange rate, inflation and output in Nigeria. A structural VAR model was employed which captured the interactions between exchange rate and output. Evidence from the contemporaneous models showed a contractionary impact of the parallel exchange rate on output only in short term. They added that output and parallel exchange rate were significant determinants of inflation dynamism in Nigeria. The authors concluded by suggesting the formulation of monetary policies that enhance income growth, Ubok-Udom (2004) examined
the relationship between exchange rate variations (and currency depreciation) and the growth of domestic output in the Nigeria economy over a 25 year period (1971-1995), he expressed the growth of domestic output (total GDP, non-oil GDP and GDP) as a linear function of variation on the average nominal exchange rate, while a dummy variable was used to capture the period of currency depreciation and a time trend variable, which is expected to reflect the influence of any time trend on output growth. This equation was estimated using both naira value output and US dollar value output respectively. The result of the study showed that all the coefficient of the major explanatory variable (exchange rate variation dummy variable capturing currency depreciation) has negative signs in all the estimated equation. He interprets the result that the rate of growth of total GDP and non-oil GDP tends to decline or rise with nominal naira dollar exchange rate and the co-efficient of the major explanatory variables with naira valued GDP were statistically insignificant while that of dollar valued were statistically significant at 5% and 10% levels. Morley (1992) and Ubok –Udom (2004) nearly captured the tenets of this study but they lack time recency and Morley converged developing countries without a particular reference. Therefore, this study seeks to bridge this gap by adopting empirical analyses in addition to Ordinary Least Square (OLS) regression method to examine the effect of exchange rate management on the survival of the industrial subsector vis-à-vis manufacturing capacity utilization, exchange rate, export, rate of industrial production, GDP and inflation.

III. Data Analysis

The study adopts correlational survey. Usually such studies indicate the direction and magnitude of the relationship that exist between variables (Nworgu 2006). Specifically the study applies regression approach in the analysis on how exchange rate management affects survival of industrial subsector in Nigeria (1990-2013). The study covers manufacturing firms and their contributions to GDP within south eastern part of Nigeria between 1990-2013. Secondary data were used for this study and these data were sourced from CBN statistical bulletin.

Model was specified in line with the objective of the study. Ordinary least square (OLS) regression method was used to analyze the data collected.

\( a\) Model Specification

\[ MCU = f (EXCH, EXP, GDP, RIND, INFL) \ldots e_t \]

The model is restated in econometric form as shown below

\[ MCU = a_0 + a_1 \text{LEXCH} + a_2 \text{LEXP} + a_3 \text{LGDP} + a_4 \text{LRIND} + a_5 \text{LINFL} + e_i \]

Where

- \(LMCU\) = Log of manufacturing capacity utilization
- \(LEXCH\) = Log of Exchange rate
- \(LEXP\) = Log of export
- \(LGDP\) = Log of Gross Domestic Product
- \(LRIND\) = Log of Rate of Industrial Production
- \(LINFL\) = Log of Inflation
- \(a_0\) = Constant term
- \(a_i\) = Coefficient intercept/ parameter estimates
- \(e_i\) = Error term.

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<th>Year</th>
<th>MCU</th>
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<th>ExpRate</th>
<th>GDP</th>
<th>Indp</th>
<th>Infl</th>
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<td>121.25</td>
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<td>903.15</td>
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**Table 3.2 : Regression Result**

<table>
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<tr>
<th>Dependent Variable: MCU</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<td>LEXPRT</td>
<td>0.040222</td>
<td>0.010769</td>
<td>3.734979</td>
<td>0.0015</td>
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<tr>
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<td>0.265917</td>
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<tr>
<td>LINFL</td>
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<td>0.191069</td>
<td>-0.594093</td>
<td>0.5598</td>
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</tbody>
</table>

R-squared: 0.705429
Adjusted R-squared: 0.623603
S.E. of regression: 13.99917
Log likelihood: -93.93830
F-statistic: 8.621146
Prob(F-statistic): 0.000260

**IV. Findings**

The p-value of the model is less than 0.05 which implies the model is adequate. Also, the t-test which shows the significance of each parameter in the model shows that three variables are significant in the model and just two, namely industrialization and inflation are insignificant. Overall, the Coefficient of determination is 70.5% which implies the independent variables considered can adequately explain up to 70.5% of the variation in the dependent variable.

Mathematically, the model formulated:

\[ MCU = 22.94 + 0.18 \times EXCHR + 0.04 \times EXPRT - 0.62 \times GDP - 0.01 \times INDP - 0.11 \times INFL \]

The model can be interpreted thus: exchange rate, and export rate have positive impact on the MCU but GDP, INDP and INFL have negative effect on the manufacturing capacity of the country.

After the hypotheses testing, the following are found out:

1. There was positive correlation between Exchange Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013.
2. There was Positive correlation between Export Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013.
3. There was no positive correlation between Growth Rate of GDP and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013.
4. There was no positive correlation between Rate of Industrialization and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013.
5. There was no positive correlation between Inflation Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013.

V. DISCUSSION OF FINDINGS

There was positive correlation between Exchange Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013. This implies that the industrialists were encouraged in their capacity utilizations as argued by Nnanna, (2002) in the Literature Review that the subsector has failed to produce enough import substitutes that would have helped to switch demand away from the foreign products to the domestic products. The study discovered that there was Positive correlation between Export Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013. This agrees with that of Moha (2010) in the literature review that the more market forces determine the exchange rate of the naira the better for the economy of the industries. But this is not strictly so always as there are times when governments peg the exchange rate undermining the market forces. The study discovered that there was no positive correlation between Growth Rate of GDP and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013. This agrees with the view of Obadan (2002) in the Literature Review that excise duty did not contribute much to the developing economy of Nigeria. The study discovered that there was no positive correlation between Rate of Industrialization and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013. This agrees with the view of Torrey (2013) in the literature review that allowing trade liberalization to entirely determine international trade is detrimental to the local economy. That explains why despite the merits of liberalization, countries still impose restrictions on international trade. The study discovered that there was no positive correlation between Inflation Rate and survival of industrial subsector in Nigeria as depicted by the rate of Manufacturing Capacity Utilization between 1990 and 2013. This agrees with the observation of Osaka, Masha and Adamgbe (2003) in the literature review that double digit inflation has greatly retarded growth of the Nigeria Economy since 1990.

VI. CONCLUSION

A number of factors have contributed to the dwindling fortunes of the naira in all the foreign exchange markets. Some of them are fundamental while others are secondary (Obadan, 2001). The fundamental factors emanate from structural imbalances relating to: Weak production base and undiversified nature of the economy; Import-dependent production structure; Fragile export base and weak non-oil export earnings;

VII. RECOMMENDATIONS

In view of the arguments so far in this research the following are recommended:

1. Manufacturing firms should produce quality goods that attract international patronage in order to boost GDP.
2. Manufacturing firms should always employ high quality factors of production as a necessary condition to efficient services and quality products.
3. Government should liberalize trade with caution in order to grow the local economy.
4. Government should encourage the development of local industrial subsector in order to boost GDP
5. Government should encourage good reward to factor of production rendered on quality basis.
6. Government should necessarily encourage increased productivity of manufacturing firms in order to boost GDP.

REFERENCES RÉFÉRENCES REFERENCIAS

The Salarygate Scandal in the Zimbabwe Parastatals Sector: Another Darkside of the Nation (2013 – 2014)

By Dr. Silas Luthingo Rusvingo

Abstract- The objective in this Paper is to expose the extend of the salary gate scandal in the Zimbabwean Parastatals sector, what the various stakeholders have said about the unraveling scandal and what remedial action has been taken against the perpetrators of the said scandal. Thereafter, the Author will proffer a Summary, Conclusion and Recommendation to wrap up the discourse.

Keywords: salary gate, scandal, zimbabwe, parastatals sector, dark side, nation.

GJMBR - A Classification : JEL Code: M00

Strictly as per the compliance and regulations of:
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For instance it has recently been made public that Zimbabwe Broadcasting Corporation (ZBC) Chief Executive Officer, Happison Muchechetere grossed about US$ 40 000.00 and got about US$ 250 000.00 as a housing allowance while many employees at the public broadcaster were not being paid for months. The constitution (Section 194) says

a) A high standard of professional ethics must be promoted and maintained and
b) Efficient and economic use of resources must be promoted

Could it have been prudent use of financial resources, to pay a top official ‘entertainment allowance of US$ 3 000.00 while several demoralized employees of the same public institution went unpaid for several months?

The constitutional clause could also be of relevance to the Executive in terms of the funds gobbled in foreign trips, big contingencies of government ministers in terms of economic use of resources.

Notable is the public admission by media, information and Broadcasting services Permanent Secretary George Charamba that while ordinary employees continued to go unpaid at the supposed broadcaster, the information pertaining to the ZBC CEO’s salary was suppressed ahead of harmonized elections in July 2013 (Staff Reporter 2014).

In order to expose the extend of the mega salary storm in the parastatals sector in Zimbabwe a short relevant Literature Review was carried out and below are the details of how the Author carried it out.

II. THE SHORT LITERATURE REVIEW CARRIED OUT: MEGA SALARY STORM IN THE PARASTATALS SECTOR IN ZIMBABWE

Zimbabwe has 78 parastatals and many local authorities which are saddled with rampant corruption. Corporate governance at a number of state enterprises and parastatals is alien amid allegations that the responsible ministers were running the show.

Early this year, government proposed that all parastatal Chief Executive Officers be paid US$ 6 000.00 as a temporary measure as the government reviewed the salary structures amid revelations some
were earning over US$ 40 000.00 in salaries and allowances (Mtomba 2014). Of the 78 parastatals those that are fingered in the mega salary scam are:

- Zimbabwe Electricity Supply Authority (ZESA)
- Air Zimbabwe
- Harare City Council (HCC)
- Public Service Medical Aid Society (PSMAS) and
- Zimbabwe broadcasting Corporation (ZBC) (Mtomba 2014)

In order to expose the full extent of the mega salary scourge in Zimbabwe the Author lined up a group of eminent personalities from the private media to sound out their opinion on what was going on in the Zimbabwe parastatal’s sector vis-à-vis the mega salary storm that had taken a firm grip of the sector since January 2014. And to start the ball rolling, the Author called upon Matenga (2014) of the Newsday to share with him what he had to say these are coming your way in just a moment.

a) 18 Town House Bosses gobble 500k monthly (Matenga 2014)

According to Matenga (2014) of the Newsday, the Town Clerk Tendai Mahachi and his bloated 18 management team at Town House were reported gobbling a whopping US$ 500 000 in monthly salaries and allowances. The shocking revelations of salaries at Town House Managers came at a time when service delivery was at an all-time low and when government had threatened to deal with the obscene salaries earned by top executives at different parastatals and local authorities. The irony of this is that the Harare City Councilors including the mayor Bernard Manyenyeni did not know anything about these obscene salaries to pose the question: What type of administration is this? This came at a time when workers from the Water Department had as at end of January 2014 not been paid since November 2013. Honourable Minister Chombo of Local government had gone public about his intention not to approve the Harare City Council (HCC) budget until he got sight of the schedule of these obscene salaries.

“I am yet to get a report (on salaries) but I sent a team to work on that. By Monday (yesterday) I will have reports for Harare, Bulawayo and Chitungwiza. If we do not get that then we will not approve the Councils’ budget because we want to link it to that”, Honourable Minister Chombo said. “We want them well said but we do not want obscene salaries for them. They should also sign 12 months long contracts to perform certain functions. They will be performance-based and if they fail there won’t be any reason to renew their contracts and keep them. You cannot give them big contracts to sit on their laurels for long”.

This latest expose was expected to brew a storm at Town House and with the general public as it coincided with the disclosure of other obscene salaries by executives at other public institutions such as the Zimbabwe Broadcasting Corporation (ZBC) and Premier Service Medical Aid Society (PSMAS).

Deputy Minister of Media, Information and Broadcasting Services, Honourable Supa Mandiwanzira recently told the Press that ZBC Chief Executive Officer Hapipson Muchechetere currently on suspension pending a forensic audit of the institution was drawing a salary of US$ 40 000.00 from the ailing parastatal (Matenga 2014).

Former ZBC Board Chairman and PSMAS boss Cuthbert Dube was said to be earning a whopping US$ 230 000.00 from the heavily indebted medical aid society (Matenga 2014).

In an unrelated development the Chief Executive of PSMAS Cuthbert Dube had been fired. For more details on these are coming your way in just a moment.

b) Cuthbert Dube fired (Staff Reporter 2014)

Premier Services Medical Aid Society (PSMAS) Chief Executive and Board Chairman at ZBC had been fired following a public outcry over his obscene US$ 210 000 monthly salary. This development had come amid reports that the PSMAS top management was gobbling at least US$ 1.3 million in monthly salaries and allowances (Staff Reporter 2014).

PSMAS owed various service providers US$ 38 million as at 31 December 2013. Media Information and Broadcasting Services Minister Honourable Jonathan Moyo said corrupt salaries paid to heads of parastatals in the country would be dealt with.

“We have false, corrupt salaries that pause a serious challenge to the public sector where some people are earning as much as US$ 230 000 in monthly salaries and allowances”, he said. “People in business do not make that much in profit in a month. I have also heard of people earning US$ 27 000.00 in parastatals. These salaries cannot be appropriate for a new economy”.

The Coalition Against Corruption (CAC) had in the aftermath of all this greed, looting and corruption come out blazing their guns in attack of this vice which had taken a firm grip on the Zimbabwe cash ailing economy. Details coming to you in just a moment.

c) Government should come hard on PSMAS Chiefs (CAC information department 2014)

The Coalition Against Corruption (CAC), the leading anti-corruption organization in Zimbabwe had strict terms condemned the greed displayed by PSMAS...
CEO Cuthbert Dube who was reported earning a
totally unjustifiable given the current economic
whopping US$ 230 000 in obscene salary and
environment where a majority of citizens were earning
allowances. Such a monthly salary for one individual is
salaries that are way below the poverty datum line (CAC
is a public entity with
wholly paid public or civil servants being the largest
Information Department 2014).

What further puzzles CAC and the Zimbabwean
people in general is that PSMAS bosses who neither care nor have mercy for the poor
two top chefs since this will go a long way in addressing the
management who award themselves hefty salaries while
the issue of looting public funds under the guise of salary
lowly paid public or civil servants being the largest

CAC calls upon all Workers’ Unions in the
country to vigorously resist and confront company
management to even get their meager

For our country to prosper like America and
China let us reject greed, looting and corruption in both
government and the private sector (CAC Information
But on mega salaries in the parastatals and

But as time goes on the noise dies down to

To resonate with what the Author has just said
above it was ironic to hear reports of PSMAS CEO,
Cuthbert Dube being given a ‘golden’ handshake as if to
to forget there was a mega salary storm. For you all
where were caught up in the mega salary scandal none has been apprehended by the police, prosecuted,
and sentenced.

To resonate with what the Author has just said
above it was ironic to hear reports of PSMAS CEO,
Cuthbert Dube being given a ‘golden’ handshake as if to
to forget there was a mega salary storm. For you all
where were caught up in the mega salary scandal none has been apprehended by the police, prosecuted,

It came as a shocker to the Author when he
leant from Chirara (2014) of Daily News that despite the
rocking noises made about Dube’s obscene salary of
US$ 230 000 per month he had in fact been retired and
not deservedly fired for criminal abuse of office.

According to Chirara (2014) retired PSMAS Chief
Executive Cuthbert Dube could walk away with a
tantalizing ‘golden’ handshake of US$20 million but for

Paying himself an obscene salary of US$230

00.00 per month from a debt ridden organization
funded by lowly paid civil servants whose salaries are
hardly US$300.00 per month which is way below the
poverty datum line of a family of six amounting to
US$550 per month (Staff Reporter 2014). Mwari rambai
(meaning God forbid)

What this effectively means is that the debt-
ridden medical services provider could be forced to fork
out as much as US$ 18.6 million in terminal benefits as

Human resources experts however, said the
long serving Executive should have been fired, without
any terminal benefits for failing to fulfill his mandate.

Memory Ngwu a managing consultant at Industrial
Psychology Consultants said Dube did not deserve to
be paid as he had failed to fulfill his mandate during the
time he was at the helm of PSMAS (Chirara 2014).

The Author for his part argues that Cuthbert
Dube should have been jailed for three life terms without
the option of a fine for his criminal abuse of office.

Members of Parliament (MPs) unanimously
called for the indictment of Dube to resonate with the
Author’s lonely cry that Dube should not have been
allowed never again to see the light of day in Zimbabwe.
Details of this coming to you right away.

e) MPs want Dube indicted (Zvauya 2014)

Members of Parliament had in the aftermath of
all this pandemonium caused by Cuthbert Dube ordered
that he be prosecuted for misappropriation of client’s
funds. Ruth Labode, a non-constituency Member of
Parliament and a medical doctor by profession had

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that he be prosecuted for misappropriation of client’s
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The law makers were unanimous in their call for a probe
into the donations made to Zifa2 by Cuthbert Dube who
also happens to be the chairperson of Zifa, another
association which, like PSMAS is also in financial
turmoil. Cuthbert Dube also hooked Mavis Gumbo, a
PSMAS Senior Staffer to Zifa where she is also
chairperson of Women’s football apart from being a Zifa
Board member.

“In light of these anomalies the Committee calls
for forensic audit into PSMAS funds handling
given its public service handling and numerous
donations to entities like Zifa, which Dube and Gumbo made”, Labode said. “The committee

2 Zifa is an acronym for Zimbabwe Football Association which is the
mother body responsible for running soccer in Zimbabwe. What is also
a puzzle to any person of sober mind is that Zifa is perpetually an
association in financial turmoil to make Dube a person associated with
organizations that are always in financial turmoil.
notes with concern the interlink ages and recurrence of similar names like Cuthbert Dube and Mavis Gumbo in PSMAS, Zifa and Zimbabwe Broadcasting Corporation (ZBC) all being troubled institutions with reported gross abuse of public funds by top management,” said Labode who is also a medical doctor by profession.

The Committee also recommended that the entire PSMAS board be blacklisted from sitting on any public institution’s board. Dube was reportedly earning a salary of US$ 230 000.00 with the other eight senior Directors earning US$ 60 000.00 each per month at a time the organization owed service providers US$ 30 million in unpaid bills (Chirara 2014).

The Combined Harare Residents Association (CHRA) was going ballistic about the payment of high salaries to management while service delivery was going to the dogs. For more details on this issue the next paragraph has more details on the issue.

f) Probe Harare City Council (Combined Harare Residents Association 2014)

Recent media reports have revealed that the 18 bosses were gobbling an average half a million in salaries and if benefits are added then the figure might double. The scandalous act has been happening in the wake of deteriorating service delivery in Harare which had hit rock bottom according to public perception index. CHRA has traditionally been calling for the elucidation of salaries for top management in a bid to satisfy the principle of accountability and transparency at Town House. CHRA notes with disappointment that the top management of council is literally running the City down whilst fattening their pockets with ratepayers’ money at the expense of service delivery which was deteriorating day in day out (CHRA 2014).

Harare City Council to begin with does not need 18 managers to run the City departments. In that vein it defeats the spirit of the Cabinet directive of allocating 30% of total revenue collected to administration and personnel whilst 70% goes to service delivery. Prior to 2000 when water woes were alien to the City, Harare was manned by seven directors and the city was able to deliver water to all suburbs without fail. To date we have 18 directors with some departments even having two directors doing one job notably the finance department and the health department. Harare City Council last year proposed a budget of US$ 291 million which is yet to be approved by the minister. In view of the proposed budget this proves CHRA’s consistent position that council is spending more on salaries ahead of service delivery mandate (CHRA 2014).

In his attack on soft measures being taken against corruption then rampant in the country, Kajau (2014) had unkind words for the powers that be. More on the story that follows as below.

g) Take stern measures against corruption (Kajau 2014)

While urging the interim management at PSMAS to quickly mop up the mess at the debt-ridden medical services provider the scandalous situation at the ZBC demanded stern measures being taken against corruption than treat some with kid gloves. How can a corrupt official continue to enjoy the same obscene salary and benefits while he is facing serious allegations of corruption and mismanagement of people and company resources? While the CEO Muchechetere was taking home a net pay of a whopping US$ 40 000.00 per month excluding perks lower level employees at ZBC had gone for an incredible seven months without pay and most of these people had their families to look after.

“Mwari navadzimu rambai! (meaning God and the Ancestral Spirits please forbid!) (Kajau 2014).

According to Kajau (2014) who was blowing hot and cold during his presentation he revealed that personal interests are taking precedence ahead of normative corporate governance business ethics. The government is hereby urged to go deep in the investigation of corruption and its life threatening consequences to wider society. The unpleasant consequences which was blamed on personal interests taking precedence ahead of normative good corporate governance. An incredible high fatality rate of 4 200 dying in a space of 6 – 12 months was just not good enough. And the blame was the failure by the Harare City Council to provide safe and drinkable water to the high density and low income suburb of Budiriro in Harare (Wikipedia 2014).

It is not surprising that the Author will forever regret why he was born in a developing Third world country. When every concerned Zimbabwean thought Cuthbert Dube of PSMAS was now dead and buried someone for lack of better conscience was at it one more time. Instead of preaching words of pacifying the minds of the aggrieved, someone in the name of the Honourable Minister of Information Media and Broadcasting Services, Jonathan Moyo chose to break the hearts of many Zimbabweans when he totally went off-side in his weird remarks on the Dube issue. For more details these are on their way coming to you in just a moment.

h) Cuthbert Dube off the hook

Making a wrong decision is not illegal – it gets you fired (Muzulu 2014).
“Former ZBC Chairman Cuthbert Dube will not be prosecuted for administrative bungling at the state broadcasting where he approved outrageous salaries and allowances for top management; said Information, Media and Broadcasting Services Minister Honourable Professor Jonathan Moyo who inflicted more pain and anger on the various stakeholders when he added; that booting him out was enough punishment.”

But this was against a background where the affected stakeholders wanted more pain and suffering on the delinquent former PSMAS CEO. For criminal abuse of office Dube stands accused of negotiating and approving pay hikes of Senior managers without the approval of the entire board. For unilaterally increasing the salary of the former ZBC CEO, Dube had done nothing illegal. Really? Is that not criminal abuse of office for which someone is criminally accountable?

“Making a wrong decision or taking a wrong decision is not illegal – it gets you fired. We have already taken an administrative action by relieving him of his duties”, Honourable Minister Moyo said.

The Honourable Minister went on to make a fool of himself when he added that Happison Muchechetere, the former ZBC CEO had also been sent on forced leave with full benefits. For a man facing a serious criminal offence of criminal abuse of office where is the pain and anger on the various stakeholders when he added; that booting him out was enough punishment.”

The Honourable Minister said the forensic audit would determine what the national broadcaster had been prejudiced of as there was enough evidence already to show that some senior managers abused ZBC funds and assets in a manner that displayed gross negligence and criminal conduct. Why then are you having Cuthbert Dube and Happison Muchechetere of PSMAS and ZBC respectively off the hook like that? What does the body language of the Honourable Minister convey to a person of sober mind? A political decision taken on a criminal offence instead of a competent court does it for us. Barely after he had been relieved of his duties as ZBC Board Chairman, Dube was unceremoniously ‘retired’ from PSMAS where he was CEO after it was revealed that he awarded himself an exorbitant basic salary amounting to US$ 230 000.00 at the health insurance provider. What is ironic about this aforementioned mega salary is that even the USA President, Barrack Obama, does not earn that kind of obscene salary which is criminal through and through. That salary made Dube arguably the highest paid executive not only in Zimbabwe but regionally and globally (Muzulu 2014).

Much to the grief of his affected stakeholders his astonishing luck did not stop there, with the Gods smiling at Cuthbert Dube, he went on to comfortably win the chairmanship of Zimbabwe Federation Association in April 2014 and despite the heavy condemnation and criticism from the soccer fraternity in Zimbabwe, Dube received hearty congratulations from the Football International Football Associations (FIFA)President, Sepp Blatter and from all the people who matter in world football (Mashaya 2014).

Another issue which sent the Author again regretting his birthday in Zimbabwe is the bungled suspension of the Harare Town Clerk on account of the same scandal – salary gate. Details on the heart wrenching story coming your way in just a moment. i) Harare Town Clerk suspended (Matenga 2014)

Every event or transaction in the mismanaged Harare City Council is never short of drama and theatrics. It was quite in order the Harare mayor Bernard Manyenyeni had taken the unprecedented move to suspend Tendai Mahachi, the Harare Town Clerk to pave way for unhindered investigations into his shenanigans at Town House which stood Town Clerk accused of:

• Unsatisfactory discharge of his duties as the Harare Town Clerk and
• The pivotal role the Town Clerk played in the payment of mega salaries to a bloated management of 18 managers who were reportedly earning a whopping US$ 500 000 in perks and allowances.
Administratively the move by Manyenyeni was above board and little did he know he had shaken a hornet’s nest (Matenga 2014).

The Local Government Minister Honourable Ignatius Chombo and Harare Town Clerk Tendai Mahachi are like Siamese twins which means that an attack on Honourable Chombo is an attack on Tendai Mahachi and vice versa. By suspending Tendai Mahachi, Harare Mayor had suspended the Local government minister Honourable Chombo. On hearing that Tendai Mahachi the Minister’s protégé had been suspended Honourable minister Chombo wasted little precious time to call Bernard Manyenyeni to his office, where he was read the riot act. He either had to stand by his move to suspend Mahachi and risk himself losing his Harare mayoral position or leaves the Honourable Minister to re-instate the Harare Town Clerk Tendai Mahachi and Bernard Manyenyeni continues in his position as Harare Mayor (Masowe 2014) (Mabhandi 2014) (Mawoyo 2014) (Tongai 2014) (Pamire 2014).

The next paragraph, a respite from the rising salarygate scandal in Zimbabwe is a Madanhire (2014) lecture on corruption being bad for democracy in Zimbabwe. Details on this coming your way in just a moment.

j) Corruption is bad for democracy (Madanhire 2014)

In his inaugural speech on his swearing in ceremony on 22 August 2014 His Excellence President Mugabe talked tough against endemic corruption and vowed to fight it for which he pledged government’s commitment. But alas not enough had been done to fight the scourge of corruption threatening to wreck the economy of Zimbabwe tottering on the verge of collapse. A recent Afrobarometer survey astonishingly revealed that one in every five people in Africa had paid one or more times to a bureaucratic just to get a document which he was supposed to get for free were it not for corruption. In Zimbabwe it had become worse than this. The Anti-corruption Trust of Southern Africa had surprisingly found that graft among traffic police was worsening with some officials having accumulated so much wealth which they could not justify against their meager monthly salaries. Recent reports exposing obscene public sector salaries with top managers earning as much as US$ 230 000 per month, not per year. And all this trash coming at a time when the Zimbabwean economy is regressing because of its poor performance since after the hotly disputed 31 July 2013 poll. As many as 700 firms closed shop last year in 2013 mainly because the Zimbabwean economy is not performing to expectations while essential national obligations like health education, to name just a few, all have had to share a meagre US$ 4.1 billion cake (Madanhire 2014).

The delay in announcing the 2014 budget by the Honourable Finance Minister Patrick Chinamasa pointed to the bankruptcy of a government and it was most unthinkable that those in public office could be sanctioned by government or state appointed boards to behave so shamelessly over the management of meagre public funds. Given this trend it is important that the government moves with speed in its fight against corruption. The social injustice of earning a whopping salary of US$ 230 000 per month in the midst of such abject poverty when 60% of the Zimbabwean population do not know when and where the next meal will come from, cannot go unchallenged. The greed by a privileged few is just too much to cause discomfort to a few with better conscience, who among them is the Author. Deterrent punitive action must of necessity being taken against the errant public officials than mere suspensions let alone dismissals from duty while they walk away with their public loot and in some cases huge packages. This is gross breach of public trust that needs to be urgently and publicly dealt with to assure the nation’s struggling masses that the government is at least on their side. The corruption playing out in the country today hurts the poor and weak most 60% of whom live in abject poverty without basic services like water, electricity or shelter because there is supposedly not enough resources to build new infrastructure, improve or extend it to new areas of urban or rural expansion. This is reason enough for His Excellence President Mugabe to bring sanity and transparent corporate governance culture that promotes and upholds an ethos of honest stewardship in Zimbabwe. Graft is bad for democracy because people who ‘perceive’ higher levels of corruption within state owned council, ZBC, PSMAS, among others, and those who have engaged in petty corruption are more likely not to value or respect democracy. While on the economic front, corruption is known to discourage investment as it increases the cost of business and at the same time unleash uncertainty over profits (Madanhire 2014).

That there are some heartless people in the developing third world country like Zimbabwe is evident for all to see and appreciate. The sad story about the ZBC employees is certainly not for people of a nervous disposition. Details on the story coming to your way in just a moment.

k) ZBC employees appeal to Mugabe over salaries (Staff Reporter 2014)

The disgruntled and voiceless ZBC employees had not been paid for an incredible three months. Just imagine what would happen to you if you were not paid for a month, let alone three calendar months. The only option available to them after exhausting all other avenues was to appeal to His Excellence President Mugabe to intervene and address their plight. In a letter dated 30 may 2013 addressed to His Excellence President Mugabe but not signed for fear of victimization by a heartless ZBC corporate leadership with a poverty
of conscience had said that their patience with the heartless leadership was wearing thin. They were failing
to buy food, pay rentals for accommodation and school fees for their children some of whom had since dropped out, simply because they were not being paid their hard earned salary by the country’s sole broadcasting authority. The letter code named “save our souls” (SOS) had been copied to the Information, Media and Broadcasting Corporation Minister Honourable Moyo and the heartless ZBC Management (Staff Reporter 2014).

The hungry and bone-looking employees said, with tears welling up in their eyes, the fat looking ZBC Management was arrogant whenever they are asked for their salaries and better working conditions, meagre and inadequate as they are.

“What this means is that for three months we have not paid our rentals, utility bills and accounts, school fees for our children who are now school dropouts, food for our families and not to mention our extended families”, wrote the thin and bone looking employees. “The truth of the matter is you have a demoralized and impoverished staff complement at ZBC whose basic workers’ rights continue to be violated despite the fact that it is us who keep the machine running”, said the undernourished employees visibly looking worried because most of them did not know when, where and how their next meal would come.

Head of ZBC public relations instead of chipping in to save the sorry and sad looking situation, Swukile Simango, refused to comment on the “lame excuse he was on leave”. But is someone on leave suddenly lost his right to comment on burning issues at the financially hamstring ZBC? Repeated efforts to get a comment from then Minister of Information, Media and Broadcasting Service, Honourable Webster Shamu proved futile as he falsely claimed to be in meetings for the greater part of the day. His Excellence President Mugabe’s Spokesman George Charamba and Happison Muchechetere the truant ZBC CEO could also not be reached for comment (Staff Reporter 2014).

But the fact of the matter if we were to shame the devil is that all of these people, Simango, Honourable Shamu, Charamba and Muchechetere wanted to distance themselves from the sad and sorry situation then unraveling at ZBC. In this modern world of increasing complexity, things should not be allowed to sink to the level that the financially troubled ZBC had reached. Against this background the appeal by ZBC employees came at a time His Excellency President Mugabe had been accused of spending millions of tax payers’ money on globe-trotting when the economy back home was burning like a veld fires (Staff reporter 2014).

Proverbially speaking, Kakara kununa hudyakamwe (meaning a predatory animal is fat from preying on the weaker animals which are hunted and killed for food) this is the epitome of the sad and sorry situation as it obtains at the financially troubled ZBC. Again details on this coming your way in just a moment.

l) Management getting hefty allowances (Staff Reporter 2014)

To add more sorrow to an already awe-inspiring story the financially troubled ZBC employees claim that they are sometimes given what they described as paltry US$ 60 and US$ 100 advanced on different days of the month for not only their sustenance but to ‘shut up’ or risk dismissal by the arrogant ZBC management. Out of nothing but sheer greed ZBC management has on several occasions been accused of awarding themselves hefty weekly allowances running into thousands of US$ every month while junior and middle management go home empty-handed to spell doom for not only their immediate families but their extended families. The financially troubled ZBC employees claimed that they were forced to form a workers credit union in which they were contributing against their will (Staff Reporter 2014). But the reality is, it is a form of banking on behalf of the arrogant ZBC management to get advances and loans some of which are ever repaid.

Proverbially speaking for the criminally enterprising Happison Muchechetere, the ZBC CEO for his inability to ‘keep out of trouble let us say ishiri ine muririro way, (meaning a bird whether domestic or wild is distinguished by the unique noise that it makes). That the Daily News of 9 February 2014 came out with a lead story that the same man was in more troubles involving fresh cash scandals is therefore not a complete surprise. For the sumptuous details these fresh cash scandals details coming your way in just a moment.

m) Muchechetere in fresh cash scandals (Mananavire 2014)

Hanzi vakuru vakati netsumo, mana chena inopairira parere rhema (meaning during the dark night a white animal on or along the road is more visible than its black counterpart which in the process is betrayed by its white animal). In other words discover the white which is more visible at night in order to also discover the black animal which is less visible at night.

According to Mananavire (2014) it was revealed that the suspended ZBC CEO Happison Muchechetere accused of plundering the bankrupt broadcaster through obscene salaries and allowances reportedly paid himself US$ 90 000 in yearly bonuses. The documents in possession of the Daily News show that Muchechetere’s huge salary and allowances were unilaterally approved by the fired ZBC Board Chairman Cuthbert Dube. The documents showed that Muchechetere was taking home US$ 22 500 per quarter in bonuses. Although ZBC never made any money to
sustain the bonus payments for the CEO. Muchechetere bonus payments came at a time the cashless ZBC was wallowing in a US$ 40 million debt and was failing to pay workers. What alarmed government is that in the case of ZBC top managers at state controlled public enterprises in connivance with their different boards awarded themselves huge allowances inflated to make up for their lower salaries (Mananavire 2014).

The then new Information Minister Honourable Professor Jonathan Moyo was forced by circumstances to dismiss the entire ZBC board and send Muchechetere the CEO on forced leave after he failed to draft a turnaround strategy for the ailing ZBC. Muchechetere was taking home a package of US$ 40 000 from a company whose revenues were US$ 275 000.00 per month against a budget of US$ 2.3 million of which US$ 1 million went to salaries. In a bid to bring sanity to the state broadcasters salary wage bill government had slashed the salaries of employees saying the broadcaster’s wage bill was unsustainable because they had been single handedly approved by the then fired Cuthbert Dube, who was then Board chairman. There was mention of housing loans of US$ 200 000.00 advanced to Muchechetere and other top officials along with various other generous hefty allowances (Mananavire 2014).

For the criminal enterprising Muchechetere it never rains but pours for him. He was also involved in a US$ 1 million scandal in which he allegedly inflated the purchase price of a radio Outside Broadcasting (OB) van from a Chinese firm the true value of the OB van was US$ 100 000.00 but this was inflated to US$ 1050 000.00 by Muchechetere in connivance with Instrimpex Officials. As the scandals rock state-owned enterprises the following unpleasant stories emerged:

- Several state owned enterprises had no boards in place
- Some boards are not meeting at all to leave the CEOs to run the show uninterrupted
- Other boards lack the necessary skills to add no value to the decision making of their boards
- Boards are often deliberately raising salaries of CEOs because the level of their allowances is linked to the CEO’s salary (Mananavire 2014).

This is a typical scratch my back so that I scratch yours baboon and monkey trick in corporate governance in all state owned enterprises.

There is no systematic board members selection and training as a result of which most board members are not sufficiently equipped to effectively carry out their Board duties all loss making parasatals like National Railways of Zimbabwe, Grain Marketing Board the defunct Cold Storage Commission, among others should be subjected to Commissions of enquiry to look into their operations with an eagle eye for any corruption activities. Most scandals are procurement related where prices are inflated to unrealistic levels to satisfy their self-serving egos.

“There is clear connivance between heads of parasatals, Boards and the private sector to steal money through inflating invoices. A case in point is the ZBC issue where an OB van for US$ 100 000 was invoiced for US$ 1 000 000.00. This was rampant corruption which is dogging everyparastatal” said the source who chose anonymity for fear of victimization (Mananavire 2014).

But most disappointing to the Author is the omission of the Honourable Minister in the equation of corruption in the parastatal sector. So far no one has had the guts to implicate the Honourable Minister in all these baboon and monkey tricks. The Author chooses to be different and implicates the minister in the equation of corruption in all state enterprises.

Gama (2014) the group editor of the Daily news is very much worried about why His Excellence President Mugabe has never uttered a word in condemnation of the rampant endemic corruption playing havoc in all state-owned enterprise. Let’s hear what he has to say about corruption is below.

n) Act on corruption Mr. President (Gama 2014)

His Excellence President Mugabe must wake up and speak his mind on the corruption scourge which is threatening to tear the country apart. With the evidence clear for all to see public institutions are wreaking havoc on the economy of the country and the sooner he speaks his mind the better for the poor and weak who are always on the receiving end when corruption takes place in a country. His Excellence President is caught between a rock and a hard surface, With the President’s spokesman George Charamba neck deep in the throes of corruption at PSMAS what else can His Excellence President Mugabe when proverbially speaking people say chakawanahamahachisekanwe (meaning criticizing your wife in public to as good as self-criticism). His Excellence watched while Charamba immersing himself into more of corruption at PSMAS to lend both of them into serious problems. Will in those circumstances, His Excellence President Mugabe have the guts to speak against corruption when corruption is also evident in his backyard. Since independence from Britain in 1980 His Excellence has looked when his top cabinet ministers were involved in corruption (Gama 2014).

What is clear from the scandals rocking state enterprises country wide is that ministers are involved and for once his Excellence President Mugabe must severely punish those caught at the wrong end of the law. Being a minister does not mean one is above the law and His Excellence President Mugabe must use all the powers in him to show his corrupt minister that he
does not condone corruption from whatever is the perpetrators. In the 1980s the Willow gate scandal in which cabinet ministers used their influence to buy cars cheap and resell them at a profit saw ministers resigning and one of them, Maurice Nyagumbo went on to commit suicide and he must be turning in his grave to question why he ever did it when today so many ministers are allowed to get away with murder. His Excellence President Mugabe must come out in the open and question the Local Government Minister Honourable Ignatius Chombo what he is trying to achieve through his re-instatement of the Harare Town Clerk, the criminal enterprising Tendai Mahachi. What on this globe is Honourable Chombo trying to hide? His Excellence must confront head on the Honourable David Parirenyatwa Minister of health to get an understanding of the looting spree at PSMAS he must ask the former Minister of Transport what is happening at Air Zimbabwe and at Zimbabwe National Road Authority (ZINARA) and he must ask the former Minister of Information Honourable Webster Shamun on the looting spree at ZBC. His Excellence President Mugabe has been chided for not taking action against corrupt officials and it’s now or never (Gama 2014).

People interviewed in Harare, the city where this PSMAS scandal took place all expressed public outrage at Dube’s mega salary. For more on the story details on the way coming to you.

o) Outrage over Dube’s mega salary (Mbanje 2014)

Members of the public have reacted angrily over media reports Dube was earning stratospheric salary amounting to US$ 500 000 with some wrong the government to seize some of his properties financial from public looting.

The public outcry in Harare was that despite having relieved of his post at financially troubled PSMAS people generally felt that the criminally enterprising Tendai Mahachi. The salaries of the eight managers amounted to US$ 1 million, while PSMAS’s unpaid debts totaled US$ 38 million. In what the Author believes was a rough ride on the stakeholders wishes the PSMAS board of directors resolved to relieve Dube of his post citing retirement age when the sordid story of his obscene salary was made public (Mbanje 2014).

Vane nzve vazvinzwira (meaning, those with ears have heard it verbatim). What remain undone are the Summary, Conclusion and recommendation. Thereafter, it is time for the key assumption before the Researcher closes the discourse with a short prayer for the country to get a reprieve from endemic corruption and its damaging consequences. Without much ado it is time for Summary which is up next.

III. Summary

The Introduction of this Paper is pre-occupied with the question: Was a crime committed or not when a CEO of a state owned enterprises earned a mega salary approved by a state appointed body? To answer that question a short relevant literature review was carried out in which all the various stakeholders were sounded for their opinion and first to give his contribution was Matenga who reported that a bloated management
team at Town House was gobbling US$ 500 000.00 in mega salaries when the lower level employees were wallowing in abject poverty.

For public looting at PSMAS where Dube was earning a whopping US$ 230 000.00 monthly salary he was first fired and later on retired on a US$ 20 million exit package which torched a public outrage by the affected stakeholders.

Zvauya (2014) reported that the law makers in parliament had recommended that Cuthbert Dube be indicted for razing PSMAS to the ground with his outrageous salary. From PSMAS the salary storm enters Town House where a bloated management team of 18 managers were gobbling US$ 500 000 in mega salaries to spark a public outrage with the Combined Harare Residents Association who on behalf of the Harare Residents protested very loudly by threatening the boycott of payment of rates and other dues (CHRA 2014).

The issue of mega salaries is treated as corruption by Kajau (2014) who proposes that the issue of mega salaries by CEOs of state – owned enterprises be treated as naked corruption were stern measures should be taken against the perpetrators.

A surprise announcement is made that Cuthbert Dube was off the hook for his mega salary scandal (Muzulu 2014). Harare Town Clerk is suspended for, among others the mega salary scandal but Honourable Minister Chombo reinstates him in a show of power against the Harare, Mayor Bernard Manyenyeni (Malenga 2014).

According to Madanhire (2014) corruption not only increases the cost of business but makes the earning of profit an uncertainty. The ZBC employees had not been paid their salaries for three months and President Mugabe to intervene in order to save life and limb (Staff Reporter 2014).

While management was getting hefty allowances the lower level employees at ZBC were going home empty handed to cause disgruntlement which propelled them to appeal to His Excellency President Mugabe to intervene.

The ZBC CEO Happison Muchechetere is again caught in fresh cash scandals of paying himself unauthorized bonuses and inflating the price of an OD van from US$ 100 000.00 to US$ 1 million and in the process pocketing the difference.

Gama (2014) urges His Excellency President Mugabe to speak out his mind on corruption as his continued silence on the issue is creating disquiet among the various stakeholders. And finally there is public outrage in Harare over Dube’s mega salary (Mbanje 2014).

With the Summary out of the way up next is the Conclusion made in the context of the relevant literature review and research findings which is up next.

IV. Conclusion

According to Kenkel (1984) a conclusion is a choice between two conflicting statements called the Null (H0) Research Hypothesis and the Alternative Research Hypothesis (H1). according to the relevant literature review and research findings the Null (H0) hypothesis for this study is: There is no problem of mega salaries in the parastatals sector in Zimbabwe. The Alternative hypothesis (H1) for the same study is: There is indeed a serious problem of mega salaries in the parastatals sector in Zimbabwe.

Given the overwhelming evidence unearthed during the study the Alternative Research hypothesis (H1) as above is to be accepted at the expense of the Null (H0) Research hypothesis which is to be rejected. With the Conclusion now conveniently out of the way up next are the Recommendations.

V. Recommendations

The argument in the public domain is that the parastatal’s sector in Zimbabwe is the feeding trough of most cabinet ministers. His Excellence President knows very well that the relevant cabinet minister knows what was happening vis-à-vis the issue of mega salaries at the under listed parastatals:

- Harare City Council
- PSMAS
- ZBC
- Air Zimbabwe

The problem at Harare City Council is not the Harare Town Clerk, Tendai Mahachi who is a mere side show. The problem at PSMAS is not the PSMAS CEO who is another side show. The problem at ZBC is not the ZBC CEO, Happison Muchechetere who is again another side show. The problem at Air Zimbabwe is gain not the CEO who is another side show. The buck as the Author sees it stops at the relevant minister. His Excellence President Mugabe must take head on every relevant cabinet minister to explain what is happening in his ministry. For a cabinet minister to be in charge of a ministry he must be held to account for everything that takes place in that ministry. Therefore kunetsana kwese kwatiri kuita naana Dube, Muchechetere, Mahachi etc is a sheer waste of time and energy. Confront the appropriate minister to give an explanation. If he can’t then fire him and not Dube, Muchechetere or Mahachi who are mere scapegoats. For today the Author will park his bus right here to prepare for the key assumption which is up next.

VI. Key Assumption

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

Again in whatever people do it is always appropriate to start and end with a short prayer targeting the Almighty God and the country’s Ancestral Spirits so that the scourge of corruption should not continue to wreak havoc on the already HIV afflicted and suffering people of Zimbabwe

VII. Closing Prayer

Mwari wesimba rose nechidza, mvumbi nemukwanisí wekwutenda kwedu, isai munesu rudo rwezita renyu, wedzerai munesu kunakazwe, kwechokwadi, ipai kunetsa kunaka kwenyu kwese, tichirirei mabasa akeipa ose, tipei nyasha dzenyu huru tichengetwe nomai nekuna. Jesu Kristo Tenzi wedu Amen.

(meaning Lord of all power and might, the author and giver of all good things, graft in our hearts the love of your name increase in us true religion, guard us against corruption, nourish in us all goodness and of your great mercy. Keep us in the same through Jesus Christ our Lord. Amen).

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Measuring Commitment and its Impact on Sustainable Performance: A Case Study on Hajee Mohammad Danesh Science and Technology University, Bangladesh

By Fahim Ahmed, Md. Zahangir Kabir & Md. Mostafizur Rahman

Hajee Mohammad Danesh Science & Technology University, Bangladesh

Abstract- Faculty members’ of any University are playing a crucial role for students and the administration of University should be aware of the importance of faculty members’ commitment and its role in motivating them for sustaining their performance. The purpose of this study was to identify the impact of faculty members’ commitment on sustained performance in University sector of Bangladesh. Both primary and secondary data has been used for the study. Primary data were collected through structured questionnaires and secondary data were used to identify the commitment related problems of the faculty members’ of University and collected from related journals, books, websites. In this study Satisfaction, Affective Commitment, Continuance Commitment & Normative Commitment have been used as independent variables and Sustained performance as the dependent variable. The findings of the study indicated that normative commitment is significantly related to sustained performance, continuance commitment is negatively related and affective commitment, satisfaction have no relation with sustained performance. The finding reveals that there exists a significant relation between satisfaction and Affective Commitment, Continuance Commitment, Normative Commitment. The study suggests that the administration should be working towards the faculty members’ satisfaction and organizational commitment.

Keywords: satisfaction, affective commitment, continuance commitment, normative commitment, sustained performance.

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Measuring Commitment and its Impact on Sustainable Performance: A Case Study on Hajee Mohammad Danesh Science and Technology University, Bangladesh

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Abstract: Faculty members’ of any University are playing a crucial role for students and the administration of University should be aware of the importance of faculty members' commitment and its role in motivating them for sustaining their performance. The purpose of this study was to identify the impact of faculty members’ commitment on sustained performance in University sector of Bangladesh. Both primary and secondary data has been used for the study. Primary data were collected through structured questionnaires and secondary data were used to identify the commitment related problems of the faculty members’ of University and collected from related journals, books, websites. In this study Satisfaction, Affective Commitment, Continuance Commitment & Normative Commitment have been used as independent variables and Sustained performance as the dependent variable. The findings of the study indicated that normative commitment is significantly related to sustained performance, continuance commitment is negatively related and affective commitment, satisfaction have no relation with sustained performance. The finding reveals that there exists a significant relation between satisfaction and Affective Commitment, Continuance Commitment, Normative Commitment. The study suggests that the administration should be working towards the faculty members’ satisfaction and organizational commitment.

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I. INTRODUCTION

The characteristics of the academic profession are not frequently met in other professions, such as self-direction, freedom and flexibility as well as the teaching/research conflict, the tenure system which provides job (in) security, etc. (Kelly, 1989). According to Bellamy (1999, mentioned in Bellamy, Morley, & Watty, 2003), faculty members are mostly motivated by intrinsic motives (e.g., autonomy, showing initiative, intellectual challenges) rather than extrinsic motives (e.g., financial or social rewards).

Organization commitment has been a topic of interest to faculty members in hopes of sustaining performance. In today’s competitive world many university is facing new challenges regarding sustained performance and creating committed faculty members. Hence, it is important to understand the concept of commitment and its viable outcome. Organizational commitment is the pre-condition of organizational development for any organization. In case of university the development or the success means the quality teaching of the faculty members. In higher studies if we do not ensure quality education to students then the future of the nation will be in dark. Quality teaching is possible only when the faculty members of university are committed to their university. In the educational sector, Organization commitment has been a rarely studied variable both in primary and secondary education faculty members. So, empirical evidence regarding organization commitment of higher education faculty members is scarce in the international literature especially in Bangladesh. According to Pearson and Seiler (1983), this area has not received much attention because a high level of job satisfaction has generally been presumed to exist in a university setting. Whether organizational commitment either has an effect on sustainable performance or not will be explored in the present study.

II. LITERATURE REVIEW

Commitment as a word cannot stand alone. We must always ask, “Committed to what?” Goethe wrote, “What you can do, or dream you can, begin it. Boldness has genius, power, and magic in it.” We would add that commitment has genius, power, and magic in it. The journey of success is long and is dotted with a series of commitments to worthy goals. According to Hall et al. (1970) the process by which the goals of the organization and those of the individual become increasingly integrated or congruent is commitment. Salancik (1977) said commitment is that a state of being in which an individual become bound by his action and through these action to beliefs that sustain the activities of his own involvement. “Organizational commitment” this concept comes from an article “The organization Man” written by Whyte in 1956. Organizational
commitment is an important means of determining employees’ organizational goals, participation in organizational management and activities, and creative and innovative attributes for the organization (Durna and Eren, 2005). Organizational commitment was asserted by Grusky (1996) as an individual’s connection to an organization. When teachers are intimately attached to an organization, they become more willing to remain with the organization and to maintain their membership in the organization. Hence, situations such as not liking one’s job, being late for a job and quitting a job are reduced to the minimum level through organizational commitment (Aydin, 1993 and Bayram, 2005). Sezgin (2010) suggested that a teacher with high commitment to his or her profession and school would make greater efforts to ensure students’ success and would be more adaptable to the goals and values of the school. Some researchers (Busch et al., 1998; Chiu-Yueh, 2000; Feinstein & Vondraek, 2006; Freund, 2005; Mannheim et al., 1997) found that job satisfaction was a significant predictor of organizational commitment. However few researchers argued that job satisfaction reflects Prompt affective reactions to the job while commitment to the organization develops slowly after the individual forms more embracing valuations of the employing organization, its values, and expectations and one’s own future in it. Rajendran Muthuveloo and Raduan Che Rose (2005) study explores that organizational commitment, leads to positive organizational outcomes. Komal Khalid Bhatti, Samina Nawab (2011) said that job satisfaction has the highest impact on high employees’ commitment and productivity. Biljana Dordevic (2004) stated that the commitment of employees is an important issue because it may be used to predict employee’s performance, absenteeism and other behaviors. Allen & Mayer (1990) claim that commitment is psychological states that bind the individual to the organization. According to the Meyer & Allen (1997) commitment is a psychological state that characterizes the employee’s relationship with the organization and has implication for the decision to continue membership in the organization. Research has shown that a high level of engagement from employees is positively correlated with financial performance (Benkoff, 1997; Collins, 2001; Collins & Porras, 1998; Ingelgård & Norrgren, 2001). If we believe that a focus on commitment and performance must be embraced simultaneously for sustained success, then the proliferation of strategic practices in the organization is pivotal to the creation of competitive advantage.

a) Organizational Commitment

Meyer and Allen (1984, 1990, and 1991) identified three dimensional model of commitment: Affective, Continuance and Normative. They said affective commitment is based on how much individual ‘want’ to remain in the organization. Continuance commitment refers to an awareness of the costs associated with leaving the organization. Normative commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization.

i. Affective commitment

Some studies recognized that commitment is the affective reaction of the employees towards the organization. Jaros (1993) the degree to which an individual is psychological attach to an employing organization through feeling such as loyalty, affection, worth, belongingness, pleasure and so on. Porter and Mowday et al. (1979) describe affective approach as the relative strength of an individual’s identification with and involvement in a particular organization. Therefore, an individual who is affectively committed or emotionally attached to the organization, (i) believe in the goal and values of the organization, (ii) works hard for the organization and (iii) intend to stay with the organization (Mowday et al., 1982). Allen and Mayer (1990) affective commitment is a members’ through to stay within and work for an organization.

ii. Continuance Commitment

After entering into an organization an employee become confined to sustain a relationship with the organization or committed to remain with the organization because of awareness of the costs associated with leaving the organization. Allen and Meyer (1990) he proposed that continuance commitment develops on the basis of two factors: (1) number of investment (side – bets) individuals make in their current organization and (2) perceived lack of alternatives. Kanter (1968) defined continuance commitment as cognitive, continuance commitment as that which occurs when there is a profit associated with continued participation and a cost associated with leaving. Meyer and Allen (1991) also specified that an individual who’s most important connection with the organization is based on continuance commitment stay with the organization simply because they have no choice. Whereas affective commitment is, where individuals remain with an organization because they want to and because they are familiar with it and they have emotional attachment with it.

iii. Normative Commitment

An employee receive benefits from the employer in exchange for his or her labor, when an employee believes that his or her employer provides more benefits than he or she deserves, that beliefs or feelings increase the normative commitment. The normative aspect develops as individuals’ perception of their moral obligation to remain with a specific organization, irrespective of how much status improvement or fulfillment the organization gives the individual over the
years (March and Mannari 1977). Normative commitment develops on the basis of earlier experiences influenced by, for example family-based experiences (parents that stress work loyalty) or cultural experiences (sanctions against “job-hopping”) (Allen & Meyer, 1996).

b) Employees Commitment and Sustained Performance

An employee who committed to his or her organization means that he or she will stay with the organization in good time and bad time also, he or she will give the best effort to the organization, works willingly; make sure the best use of organization’s assets as a result ultimately the productivity is increasing. Dixit & Bhati (2012) Employee commitment can benefit organization in a number of ways such as it can improve performance; reduced absenteeism, and turnover thereby resulting in sustained productivity. Horton too stated that organization commitment could result in less turnover absenteeism, thus increasing organization productivity (Schuler & Jackson, 1996). According to Konovsky and Cropanzano (1991) and Meyer and other (1998) have uncovered a positive relationship between commitment and job performance. Employers who are committed to their respective organization are more likely not only to remain with the organization but are also likely to exert more efforts on behalf of the organization and work towards its success and therefore are also likely to exhibit better performance that the uncommitted employees. According to Arturo L. Tolentino (2004) Sustained productivity improvement depends on the enterprise’s human capital (the skills, knowledge, competencies and attitudes that reside in the individual employee of the enterprise) and its social capital (trust and confidence, communication, cooperative working dynamics and interaction, partnership, shared values, teamwork, etc. among these individuals. The committed employee has been found to be more creative; they are less likely to leave an organization than those who are uncommitted (Porter et.al. 1974).

III. OBJECTIVES OF THE STUDY

The main aim of this study is to identify the impact of faculty members’ Commitment on sustained performance in HSTU. It is vital as suggestions may be given to the HSTU administration or authority in order to bring an awareness of the commitment level of faculty members’. The specific objectives of the study are as follows:

- To study the impact of faculty members’ Commitment on sustained performance.
- To identify the independent factors responsible for low commitment and poor performance of the faculty members’.

- To suggest the ways of improvement the organization commitment of the faculty members’.

IV. LIMITATIONS OF THE STUDY

Self-reported measures were used to evaluate organizational commitment and sustained performance. The respondents were from only one public university (HSTU) so the findings cannot be generalized to faculty members of all public universities in Bangladesh. But as the research was based on realistic hypotheses it is more or less applicable on the total population.

V. RESEARCH METHODOLOGY

This study was based on both primary and secondary data. Primary data were collected through a structured questionnaire which was distributed personally to the 70 faculty members’ (lecturers, assistant professors, associate professors and professors) working in HSTU to recognize the effect of commitment on sustained performance. The total number of items in questionnaire were 43 among which organizational commitment questionnaire (OCQ) consists of 24 items which were taken from OCQ by Allen and Mayer. The questionnaire was developed by using a five point Likert scale measure faculty members’ organizational commitment on sustained performance, ranging from Strong Agree (5), Agree (4), Neutral or Undecided (3), Disagree (2) and Strongly Disagree (1). The secondary data which have been used in this study were collected from related journals, books, and websites. Collected data were analyzed through SPSS to get accurate result on organization commitment and sustaining performance. There were 195 faculty members in HSTU total 70 faculty members were randomly selected as a sample.

a) Hypotheses Development

The following null hypotheses have been rendered based on various factors of organization commitment

H10: Faculty members’ organizational commitment (AC, CC and NC) does not influence sustained performance.
H20: There is no association between faculty members’ satisfaction and sustained performance.
H30: There is no association between faculty members’ Satisfaction, Commitment (AC, CC and NC), sustained performance and Age, Education, Experience.
VI. Analysis and Interpretation

a) Descriptive Statistics

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>70</td>
<td>2.83</td>
<td>4.83</td>
<td>3.7024</td>
<td>.32956</td>
</tr>
<tr>
<td>AC</td>
<td>70</td>
<td>2.25</td>
<td>4.88</td>
<td>3.8286</td>
<td>.45850</td>
</tr>
<tr>
<td>CC</td>
<td>70</td>
<td>2.38</td>
<td>4.25</td>
<td>3.5036</td>
<td>.45493</td>
</tr>
<tr>
<td>NC</td>
<td>70</td>
<td>2.25</td>
<td>4.63</td>
<td>3.1786</td>
<td>.40523</td>
</tr>
<tr>
<td>SP</td>
<td>70</td>
<td>1.67</td>
<td>4.67</td>
<td>3.3048</td>
<td>.66119</td>
</tr>
</tbody>
</table>

Table 2: Demographic profile of the respondents

<table>
<thead>
<tr>
<th>Employee Category</th>
<th>Number</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>62</td>
<td>88.6</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>11.4</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 25</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>25-29</td>
<td>20</td>
<td>28.6</td>
</tr>
<tr>
<td>30-39</td>
<td>25</td>
<td>35.7</td>
</tr>
<tr>
<td>40-49</td>
<td>21</td>
<td>30.0</td>
</tr>
<tr>
<td>50-59</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>60+</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>46</td>
<td>65.7</td>
</tr>
<tr>
<td>M Phil</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>PhD</td>
<td>18</td>
<td>25.7</td>
</tr>
<tr>
<td>Post Doctorate</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below One Year</td>
<td>7</td>
<td>10.0</td>
</tr>
<tr>
<td>1-2 Year</td>
<td>15</td>
<td>21.4</td>
</tr>
<tr>
<td>3-5 Year</td>
<td>12</td>
<td>17.1</td>
</tr>
<tr>
<td>6-10 Year</td>
<td>24</td>
<td>34.3</td>
</tr>
<tr>
<td>11-15 Year</td>
<td>5</td>
<td>7.1</td>
</tr>
<tr>
<td>16-20 Year</td>
<td>4</td>
<td>5.7</td>
</tr>
<tr>
<td>20 Year Above</td>
<td>3</td>
<td>4.3</td>
</tr>
</tbody>
</table>

From table 01 of mean & std. deviation it is found that the average satisfaction of the respondents is 3.70 & std. deviation is .329, the average Affective Commitment of the respondents is 3.82 & std. deviation is .458, the average continuance commitment of the respondents is 3.50 & std. deviation is .454, the average normative commitment of the respondents is 3.17 & std. deviation is .405, the average sustained performance of the respondents is 3.30 & std. deviation is .661.

Table 3: Correlations

<table>
<thead>
<tr>
<th></th>
<th>SAT</th>
<th>AC</th>
<th>CC</th>
<th>NC</th>
<th>SP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.235</td>
<td>.356*</td>
<td>.068</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.050</td>
<td>.099</td>
<td>.002</td>
<td>.578</td>
<td></td>
</tr>
</tbody>
</table>

b) Correlation between satisfaction, affective commitment, continuance commitment, normative commitment and sustained performance

From the table 03 it can be seen that satisfaction and affective commitment is positively correlated with each other at 5% level of significance. Satisfaction and continuance commitment is positively correlated with each other at 9% level of significance. Satisfaction and normative commitment is positively correlated with each other at 0% level of significance. Sustained Performance and normative Commitment is positively correlated with each other at 0% level of significance. Sustained Performance and Continuance Commitment are negatively correlated with each other at 0% level of significance. Continuance commitment and normative commitment negatively correlated with each other.

c) Multivariate analysis

Stepwise multiple regression analysis was used to determine the impact of Satisfaction, Affective Commitment, Continuance Commitment, Normative Commitment on Sustained Performance and Age Education Experience on Satisfaction, Affective Commitment, Continuance Commitment, Normative Commitment, Sustained Performance of faculty members working in HSTU.
i. Relationships between satisfaction, affective commitment, continuance commitment, normative commitment and sustained performance

Table 4: Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.616a</td>
<td>.380</td>
<td>.342</td>
<td>.53654</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), SAT, AC, CC, NC

Table 5: ANOVA

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11.453</td>
<td>4</td>
<td>2.863</td>
<td>9.946</td>
</tr>
<tr>
<td>Residual</td>
<td>18.712</td>
<td>65</td>
<td>.288</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.165</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), SAT, AC, CC, NC

b. Dependent Variable: SP

Table 6: Coefficients

<table>
<thead>
<tr>
<th>(Constant)</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>2.748</td>
<td>.887</td>
<td>3.096</td>
</tr>
<tr>
<td>SAT</td>
<td>-.096</td>
<td>.215</td>
</tr>
<tr>
<td>AC</td>
<td>-.013</td>
<td>.162</td>
</tr>
<tr>
<td>CC</td>
<td>-.493</td>
<td>.156</td>
</tr>
<tr>
<td>NC</td>
<td>.845</td>
<td>.183</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SP

From the Coefficient table 06 it can be seen that Satisfaction and Affective Commitment have no relation with Sustained Performance. Continuance Commitment is negatively related with Sustained Performance at a .002 significance level. Normative Commitment is positively related with Sustained Performance at a .000 significance level. So, the null hypothesis can be rejected and the alternative hypothesis can be accepted.

ii. Relationships between satisfaction and age, education, experience

From the Coefficient table 09 it can be seen that there is no significant relationship between Satisfaction and Age, Education, Experience. The values of t and Beta are not standard. So, the null hypothesis can be accepted and the alternative hypothesis can be rejected.

Table 7: Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adj. R Square</th>
<th>Std. Error of the Es.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.095a</td>
<td>.009</td>
<td>-.036</td>
<td>.33545</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Age, Education, Experience

Table 8: ANOVA

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.067</td>
<td>3</td>
<td>.022</td>
<td>.199</td>
</tr>
<tr>
<td>Residual</td>
<td>7.427</td>
<td>66</td>
<td>.113</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7.494</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Age, Education, Experience

b. Dependent Variable: Satisfaction

Table 9: Coefficients

<table>
<thead>
<tr>
<th>Unstd Coefficients</th>
<th>Std Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Constant</td>
<td>3.714</td>
</tr>
<tr>
<td>Age</td>
<td>.013</td>
</tr>
<tr>
<td>Education</td>
<td>.021</td>
</tr>
<tr>
<td>Experience</td>
<td>-.031</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Satisfaction

iii. Relationships between affective commitment and age, education, experience

From the Coefficient table it can be seen that there is no significant relationship between Affective Commitment and Age, Education, Experience. The values of t and Beta are not standard. So, the null hypothesis can be accepted.

Table 10: Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.287a</td>
<td>.083</td>
<td>.041</td>
<td>.44904</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Age, Education, Experience

Table 11: ANOVA

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.197</td>
<td>3</td>
<td>.399</td>
<td>1.980</td>
</tr>
<tr>
<td>Residual</td>
<td>13.308</td>
<td>66</td>
<td>.202</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.505</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Age, Education, Experience

b. Dependent Variable: Affective Commitment

Table 12: Coefficients

<table>
<thead>
<tr>
<th>Unstd Coefficients</th>
<th>Std Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Constant</td>
<td>4.064</td>
</tr>
<tr>
<td>Age</td>
<td>-.059</td>
</tr>
<tr>
<td>Education</td>
<td>.075</td>
</tr>
<tr>
<td>Experience</td>
<td>-.074</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Affective Commitment

From the Coefficient table it can be seen that there is no significant relationship between Affective Commitment and Age, Education, Experience. The values of t and Beta are not standard. So, the null
hypothesis can be accepted and the alternative hypothesis can be rejected.

iv. Relationships between continuance commitment and age, education, and experience

<table>
<thead>
<tr>
<th>Table 13: Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>.152&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Age, Education, Experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 14: ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Age, Education, Experience</td>
</tr>
<tr>
<td>b. Dependent Variable: Continuance Commitment</td>
</tr>
</tbody>
</table>

From the Coefficient table 15 it can be seen that there are no significant relationship between Continuance Commitment and Age, Education, Experience. Here Beta and t values are not standard. So, the null hypothesis can be accepted and the alternative hypothesis can be rejected.

<table>
<thead>
<tr>
<th>Table 15: Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>3.525</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Experience</td>
</tr>
<tr>
<td>a. Dependent Variable: Continuance Commitment</td>
</tr>
</tbody>
</table>

v. Relationships between normative commitment and age, education, experience

<table>
<thead>
<tr>
<th>Table 16: Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>.180&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Age, Education, Experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 17: ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Age, Education, Experience</td>
</tr>
</tbody>
</table>

vi. Relationships between sustained performance and age, education, experience

<table>
<thead>
<tr>
<th>Table 18: Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>3.655</td>
</tr>
<tr>
<td>Age</td>
</tr>
</tbody>
</table>
Hypothesis can be accepted and the alternative hypothesis can be rejected.

**VII. Conclusion**

This research identified the impact of organizational commitment of the faculty members' and its impact on sustained performance in HSTU. In HSTU the sustained performance of the faculty members' depends more upon the Normative Commitment. From this study it has been seen that HSTU faculty members' are committed to their organization and they are satisfied to their job but their sustained performance do not depend on satisfaction, affective commitment and continuance commitment. Though it has been examined that organizational commitment and satisfaction. The administration of HSTU suggested to take some measure to increase the satisfaction of the faculty members' and should ensure that faculty members' are highly committed to the organization. Increase in satisfaction and commitment will help the faculty members' to become more performance oriented. Faculty members’ do not feel a strong sense of belonging to this university. From this research it is also found that faculty members’ organizational attachment with this university is low in some extent. So for solving this problem quality supervision and training in organizational commitment for faculty members' should be provided by academic administrators and policy makers. University faculty members’ organizational commitment and sustained performance is under-researched area particularly in the public universities in Bangladesh. So, the current investigation has contributed to improve the understanding on significant issue. This research paper would be of value to researchers seeking information on how organizational commitment and sustained performance are linked.

**References Références Referencias**


Critical Success Factors in Project Management: An Exploratory Study of an Energy Company in Brazil

By Paulo Cesar Felix Osorio, Osvaldo L G Quelhas, Luis Perez Zotes, Eduardo Shimoda & Sérgio França

Fluminense Federal University, Brazil

Abstract- In a competitive business environment, the use of project management can allow organizations to strategically structure themselves to achieve their business goals and needs. In this way, organizations can invest in more effective project management that is aimed at achieving better performance, maximizing the possibility of success, and minimizing the chance of failure. Within this context, organizations must know which critical factors are most responsible for the success of a project to manage these factors in the best possible manner. The aim of this paper is to understand the relationship among critical success factors (CSF) in project management and the outcome of projects, from a contingency perspective. The field research developed in a company in the energy sector was done in two phases: document analysis and survey research with questionnaire applied to key stakeholders and 133 completed questionnaires were obtained. One result of the research indicates the CSF “Support from upper management” and “Scope clearly defined and detailed” as the most significant impact on the success of project management.

Keywords: project management, project success, project-critical success factors.

GJMBR - A Classification : JEL Code: D20

Strictly as per the compliance and regulations of:
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I. INTRODUCTION

According to authors such as Cleland and Ireland (2007), formal project management has existed for over 50 years; however, the history of management practices dates back to antiquity, as confirmed by large construction projects of the past such as the Great Pyramids and numerous canals, bridges, cathedrals, and other infrastructure projects.

According to Shenhar and Dvir (2010), in a competitive business environment, projects play an important role in organizations' strategic management. Projects are vectors for change and for the implementation of strategies and innovations that can bring competitive advantages to companies.

To authors such as Kerzner (2006) and Meredith and Mantel (2003), the last few decades have been marked by an increased use of project management as a way for organizations to structure themselves to achieve their goals. The recessions of 1979-83 and 1989-93 contributed to companies' recognition of the benefits of using project management.

According to Pinto and Slevin (1987), the process of managing a project is a constant challenge to its manager – the project manager – from the very beginning. A project’s complexity requires its manager to have the ability to address a variety of issues with human, financial, and technical dimensions, to name a few, as well as their interactions. As a result, project managers must respond to difficult tasks, and their jobs are often characterized by overwork and a frantic pace.

As observed by authors such as Kerzner (2006), Munns and Bjeirmi (1996), and Oliveira (2002), the results of an organization’s strategic planning guide it to undertake projects that can contribute to its strategic goals. Therefore, organizations seek to invest in more consistent project management that is aimed at improved performance, a maximized possibility of success, and a minimized chance of failure.

Oliveira (2002) defines strategic planning as the process of elaborating and implementing decisions on an organization's future course. Investing time and resources in the elaboration of a strategic plan can guide organizations to accomplish their strategic goals.

Kerzner (2006) suggests that an organization’s goals may not be achieved if attention is not paid to critical aspects such as project complexity, requests for changes in scope, organizational restructuring, project risks, technological changes, and financial planning, to name a few.

To Barcaui and Quelhas (2004), all of these factors place project management in a strategic position within organizations because the efficient implementation of projects may be the path by which organizations can reach their strategic goals and obtain the best possible results.

In this context, the objective of this paper is to understand the correlation between the critical success factors cited in academic papers and its impact on the success of project management.

To meet this goal, the concept of success is analyzed, and the critical factors are then defined and identified through the application of a questionnaire to specialists from an energy company.
The research was developed in an important energy company in the period among October and December 2012.

II. Brazil’s Energy Market

To describe Brazil’s energy market, data from the Brazilian National Petroleum, Natural Gas and Biofuel Agency (Agência Nacional de Petróleo, Gás Natural e Biocombustíveis - ANP), the Energy Research Company (Empresa de Pesquisa Energética - EPE), Petrobras, the International Energy Agency (Agência Internacional de Energia - IEA), and the Energy Information Administration (EIA) were used. These data reflect the current status of the energy industry in Brazil.

According to Amaral (2013), petroleum is the primary energy source both in the world and in Brazil’s energy matrix. Although petroleum consumption in Brazil is greater than the world’s average, the Brazilian energy matrix is quite clean, with little participation of coal (5% in 2009) and a significant presence of renewables such as hydroelectricity and sugar cane derivatives.

Figure 1 presents the Brazilian energy matrix, which provides a better understanding of the trends that shaped the sector over the last few decades.

According to the EIA report (Energy Information Administration, 2013), among all countries, Brazil is the eighth largest consumer of energy in the world and the third largest in the Americas, behind the United States and Canada. Brazil’s total consumption of primary energy has increased by more than one-third in the last decade as a result of strong economic growth and the development of a new middle class.

Statistics show that Brazil is the world’s 10th largest energy producer. Moreover, Brazil has made great progress in increasing its total energy production, especially petroleum and ethanol. Increasing internal petroleum production has been a long-term goal of the Brazilian government, and the recent discovery of large offshore reservoirs, namely pre-salt oil, could turn Brazil into one of the world’s largest petroleum producers (EIA, 2013).

Because of the pre-salt oil discoveries in Santos Bay, Brazil is emerging as a new leader in the petroleum sector. Over the last three decades, Petrobras - the national petroleum company - has made a series of significant discoveries at sea, beginning with Campos Bay, and in the process has become a world leader in deep-water technologies. The exploitation of deep-water oil fields by Petrobras and its partners will be complex and expensive, but it has the potential to turn Brazil into a significant petroleum exporter as well as an important producer of natural gas (International Energy Agency, 2013).

Figure 2 shows Brazil’s energy demand, which has closely followed its gross national product (GNP) over the last two decades. Since 1990, the demand for energy has doubled, reaching almost 270 million tons equivalent of petroleum (Mtoe) in 2011.
The pace of growth, both in economic activity and in the demand for energy, has increased since the turn of the century: from 2000-2011, the average annual GNP growth was 1% higher than in the previous decade, i.e., 3.5% instead of 2.5%.

Petroleum and renewable energy (most importantly, bioenergy and hydroelectric energy) have remained dominant in the primary energy mix. The only significant change over the last two decades has been an increase in demand for natural gas, which increased its participation in the primary energy mix from 2% in 1990 to over 10% today (IEA, 2013).

III. Success in Projects

According to several authors, including Baccarini (1999), Belassi and Tukel (1996), De Wit (1988), Kerzner (2006), Pinto and Slevin (1988), and Shenrar and Dvir (2010), one theme within project management that is frequently discussed but seldom agreed upon concerns the notion of project success.

According to Kenny (2003), when judging a project's success within an organization, one cannot limit the analysis to the efficiency of the project management processes employed but must also take into account the project's effectiveness in contributing to the organization's strategic objectives.

To Jugdev and Müller (2005), project management is established to optimize projects' efficiency and effectiveness. Efficiency refers to maximizing production to a given input level, and effectiveness means achieving the project's goals and objectives. Both are goal-oriented practices that are related to achieving success.

To Dweiri and Kablan (2006), effectiveness is measured or evaluated as a function of the degree to which project goals are achieved, while efficiency is measured as a function of meeting the project's deadline, budget, and quality criteria.

Patah (2010) argues that project success is related to two components, efficiency and effectiveness. The success of any project is determined by how well the project contributes to the achievement of the organization's strategic objectives (effectiveness) and how well the project has been carried out (efficiency). In an organizational environment, projects are ways to implement strategies. Therefore, a project's objectives must be directly connected to the organization's strategic objectives.

Shenrar and Dvir (2010) reinforce the concept of project success linked to efficiency and effectiveness. Meeting deadline and budget goals indicates that a project has been efficiently managed. However, most projects are part of their organizations' strategic management and must be evaluated based on their contributions to the business' results (effectiveness).

Based on their study, Shenrar and Dvir (2010) suggest that a project's success can be defined by five metrics:

- The first dimension, project efficiency, represents a short-term metric that is concerned with whether the project was completed according to plan.
- The second dimension, client impact, represents the main stakeholders and should clearly show how the project improved the client's business.
- The third dimension, impact on team, assesses the team's satisfaction and the indirect investment that the organization made in the team members, including further qualifications and the development of professional and managerial skills.
- The fourth dimension, commercial and direct success, is related to the project's commercial success and its contribution to the organization's final results.
The fifth dimension, preparing for the future, reflects how well the project helped the organization prepare its infrastructure for the future, and how the project created new opportunities.

**IV. Efficiency and Effectiveness In Projects**

According to Patah (2010) in an organizational environment, projects are the way to implement strategies. Therefore, project objectives should be directly linked to strategic objectives. The effectiveness in any project is determined by how well the project contributes to the achievement of the strategic objectives of the organization and efficiency is determined by how well the project was conducted.

According to Shenrar, Poli and Lechler (2000) and Dvir (2010), efficiency represents projects which are operationally managed focused on doing the scope and meet goals on time and budget, while effectiveness represents projects which are strategically managed focused on getting results for business and grow the marketplace.

According to Shenrar and Dvir (2010) the goals of time and budget indicate that the project was managed efficiently. However, most of the projects are part of the strategic management of their organizations and should be evaluated based on their contributions to business outcomes (effectiveness).

To Dweiri and Kablan (2006) effectiveness is measured or evaluated based on the degree of achievement of the project objectives and efficiency based on the achievement of time, cost and quality criteria of the project. The table below presents a summary of the concept of effectiveness and efficiency for managing projects cited in the literature.


In this paper Effectiveness is determined by how the project contributes to the achievement of business results and Efficiency is measured as a function of performing the scope and meeting targets of time, cost and quality criteria of the project.

**V. Critical Success Factors In Projects**

Baccarini (1999), Pinto and Mantel (1990), Pinto and Prescott (1988), Pinto and Slevin (1988), Shenhar et al. (2001), understand that the process of managing projects involving the implementation of successful projects in organizations, represents topic of interest to researchers and project managers.

Much has been written to help project managers in their efforts to manage and guide a variety of organizational projects with greater efficiency and effectiveness. Empirical and conceptual approaches have been applied to the study of the management of the project and as a result, different process models were presented and CSF contributed significantly to the success of the project.

According to Meredith and Mantel (2003), Pinto and Slevin (1987) the factors considered critical for the success of a project are different for different types of projects and industries, while emphasizing that these factors have an important influence on the success of the project and the organization.

Dvir et al. (1988) suggest that the CSF projects are not universal for all projects. Different projects have different sets of CSF, suggesting the need for more contingent approach to the theory and practice of project management.

Cooke-Davies (2002) examined 136 projects carried out between 1994 and 2000, at 23 major European private companies. The development of CSF is related to answers the following questions:

- What factors lead to success in project management?
What factors lead to successful projects?
What factors lead to consistently successful projects?

The first question, “What factors lead to success in project management?” leads the CSF that once applied by organizations, bring benefits that outweigh project management and impact the entire organization, taking a more strategic connotation (effectiveness) (COOKE-DAVIES, 2002).

The second and third questions, “What factors lead to successful projects?” And “What factors lead to consistently successful projects?” leading to the CSF related to a well done project management (efficiency) (Cooke-Davies, 2002).

Fortune and White (2006) conducted an extensive literature review of 63 publications focusing on CSF. As a result of their work provided a list containing twenty-seven critical factors. The following table presents the CSF identified across 63 publications in descending order of frequency.

Table 2: Critical Success Factors identified across 63 publications

<table>
<thead>
<tr>
<th>Critical Factor</th>
<th>Count of citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support from senior management</td>
<td>39</td>
</tr>
<tr>
<td>Clear realistic objectives</td>
<td>31</td>
</tr>
<tr>
<td>Detailed plan kept up to date</td>
<td>29</td>
</tr>
<tr>
<td>Good communication/ feedback</td>
<td>27</td>
</tr>
<tr>
<td>User/client involvement</td>
<td>24</td>
</tr>
<tr>
<td>Skilled/ suitably qualified/ sufficient staff/team</td>
<td>20</td>
</tr>
<tr>
<td>Effective change management</td>
<td>19</td>
</tr>
<tr>
<td>Competent Project manager</td>
<td>19</td>
</tr>
<tr>
<td>Strong business case/ sound basis for Project</td>
<td>16</td>
</tr>
<tr>
<td>Sufficient/well allocated resources</td>
<td>16</td>
</tr>
<tr>
<td>Good leadership</td>
<td>15</td>
</tr>
<tr>
<td>Proven/ familiar technology</td>
<td>14</td>
</tr>
<tr>
<td>Realistic schedule</td>
<td>14</td>
</tr>
<tr>
<td>Risks addressed/ assessed/ managed</td>
<td>13</td>
</tr>
<tr>
<td>Project sponsor/ Champion</td>
<td>12</td>
</tr>
<tr>
<td>Effective monitoring/ control</td>
<td>12</td>
</tr>
<tr>
<td>Adequate budget</td>
<td>11</td>
</tr>
<tr>
<td>Organizational adaptation/ culture/ structure</td>
<td>10</td>
</tr>
<tr>
<td>Good performance by suppliers/ contractors/ consultants</td>
<td>10</td>
</tr>
<tr>
<td>Planned close down/ review/ acceptance of possible failure</td>
<td>9</td>
</tr>
<tr>
<td>Training provision</td>
<td>7</td>
</tr>
<tr>
<td>Political stability</td>
<td>6</td>
</tr>
<tr>
<td>Correct choice/ past experience of project management methodology/ tools</td>
<td>6</td>
</tr>
<tr>
<td>Environmental influences</td>
<td>6</td>
</tr>
<tr>
<td>Past experience (learning from)</td>
<td>5</td>
</tr>
<tr>
<td>Project size (large)/ level of complexity/ number of people involved (too many)/ duration (over 3 years)</td>
<td>4</td>
</tr>
<tr>
<td>Different viewpoints (appreciating)</td>
<td>3</td>
</tr>
</tbody>
</table>


However, despite growing lists of CSF, projects recognized by success are still rare. According Zwikael and Globerson (2006) CSF are general and donot contain sufficiently specific knowledge to support better decision making by the project manager.

For Dvir et al. (1988), Meredith and Mantel (2003), Pinto and Prescott (1988), Pinto and Slevin (1987), Shenhar et al. (2001), Shenhar and Dvir (2010), factors considered critical for the success of a project are distinguished for different types of projects and industries.

VI. Research Method

Based on the literature review of 63 publications focused on CSFs by Fortune and White (2006), the 27 most cited CSFs were incorporated into this study's questionnaire, and their descriptions were duly adjusted to allow conceptual unity and better understanding without losing comprehensiveness and meaning in the process.

In this study we chose to structure research in two phases. The first phase was a literature search, covering project management, critical success factors in project management and evaluation of project success. The field research was developed in a company in the energy sector with a survey research questionnaire applied to the project managers involved in major projects of the company. The last phase was the analysis and discussion of results.
In the first stage a critical analysis of the company project portfolio was carried out. We considered indicators drawn from the company database, among which may be mentioned budget, duration and scope maturity.

The questionnaire aimed to identify, among some critical success factors of projects mentioned by the literature, the impact that each one has on company projects. From this result it was possible to identify the correlation between the CSF with a focus on effectiveness and efficiency of projects.

In Table 3, the CSF identified in the reviewed literature are presented in groups that are organized according to the concepts of effectiveness and efficiency discussed in previous section.

<table>
<thead>
<tr>
<th>Component</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>Support from upper management</td>
</tr>
<tr>
<td></td>
<td>Clear and realistic goals</td>
</tr>
<tr>
<td></td>
<td>Detailed and up-to-date Project Plan</td>
</tr>
<tr>
<td></td>
<td>Efficient communication channels and system</td>
</tr>
<tr>
<td></td>
<td>Involvement and commitment of stakeholders</td>
</tr>
<tr>
<td></td>
<td>Effective control of changes</td>
</tr>
<tr>
<td></td>
<td>Availability of information on the history of previous projects</td>
</tr>
<tr>
<td></td>
<td>Adequate organizational structure</td>
</tr>
<tr>
<td></td>
<td>Effective process for hiring suppliers</td>
</tr>
<tr>
<td></td>
<td>Qualified project team and management</td>
</tr>
<tr>
<td></td>
<td>Adequate project management tools and methodology</td>
</tr>
<tr>
<td></td>
<td>Project size and complexity</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Experienced and competent project team</td>
</tr>
<tr>
<td></td>
<td>Experienced and competent project manager</td>
</tr>
<tr>
<td></td>
<td>Clearly defined and detailed scope</td>
</tr>
<tr>
<td></td>
<td>Sufficient and well-allocated resources</td>
</tr>
<tr>
<td></td>
<td>Realistic timeline</td>
</tr>
<tr>
<td></td>
<td>Effective risk management</td>
</tr>
<tr>
<td></td>
<td>Effective project monitoring and control</td>
</tr>
<tr>
<td></td>
<td>Realistic budget</td>
</tr>
</tbody>
</table>


For each CSF, one objective assertion is presented to each respondent for him or her to classify how this factor applies to the success of his or her company project.

As assessed by the respondents, in this study, success refers to how well the project contributed to the achievement of the organization's strategic objectives (effectiveness) and how well the project was carried out (efficiency).

Next, a questionnaire with answers that could be analyzed using a Likert-type scale was composed (Likert, 1932). Additionally, an alternative for abstention (I do not know/I would rather not choose) was provided.

This classification through a Likert-type scale contains five alternatives that indicate the level of importance attributed to the assertion regarding the particular CSF. This scale varies from 1, not at all important, to 5, very important.

The specialists were selected by convenience sampling, i.e., a non-random sample whose elements are conveniently picked according to a given criterion. Non-random convenience samples seek to generate samples that adequately represent the population from which they have been extracted. The population consists of project managers at energy company in Brazil.

In choosing project management specialists, the premise of sending the questionnaire to the managers of approximately 900 projects that compose the company's project portfolio was adopted.

For the choice of the number of specialists to be interviewed, Richardson's recommendation was adopted: the number of specialists in project management who were identified as having the described profile in the organization being studied was 320, and the sample was set to 133 specialists, i.e., 41.5% of the total (Richardson, 1999).

Regarding respondents' experience as project managers, 57.8% claimed to have over 8 years of experience, 15.8% between 5 and 8 years, 16.5% between 3 and 5 years, 7.5% between 1 and 3 years,
and 2.3% up to 1 year. All of the respondents claimed to have a college degree, and 78.9% said they had some specialization or MBA, while 21.1% claimed to have a Master’s or Doctoral degree. In the sample, 72.2% are certified as a Project Management Professional (PMP) by the Project Management Institute (PMI).

In developing a questionnaire, two aspects are considered very important: its validity and its reliability.

According to Richardson (1999), validity can be considered as the degree to which the scores from a test relate to some criterion that is external to the test. Hayes (1995) defined reliability as the degree to which the measured result reflects the true result, i.e., the degree to which a measurement is free from the variance of random errors.

Cronbach’s alpha coefficient was used in this study to investigate the reliability of the questionnaires used herein.

In 1951, Lee J. Cronbach described the alpha coefficient (Cronbach, 1951). This test represents an estimate of questionnaire reliability that has been applied in many studies. Given that all of the items in the questionnaire used the same measurement scale, the \( \alpha \) coefficient, restricted to the \([0,1]\) interval, was calculated from the variance of the individual items and the covariances between items through the following equation:

\[
\alpha = \frac{k}{k-1} \left[ 1 - \frac{\sum_{i=1}^{k} S_i^2}{S_t^2} \right]
\]

where \( k \) is the number of items in the questionnaire, \( S_i^2 \) is the variance of the \( i \)-th item, and \( S_t^2 \) is the questionnaire’s total variance.

According to Streiner (2003), the value of Cronbach’s alpha should be between 0.7 and 0.9. If it is below 0.7, the internal consistency of the scale being used is considered low, and if it is above 0.9, redundancy or duplication is considered to be present. Cronbach’s alpha values between 0.8 and 0.9 are preferred.

Table 4 shows the results of the internal consistency analysis for the items belonging to each of the dimensions used.

<table>
<thead>
<tr>
<th>Cronbach’s ( \alpha ) Coefficient</th>
<th>Effectiveness</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.80</td>
<td>0.83</td>
</tr>
</tbody>
</table>


The internal consistency of the answers obtained from applying the questionnaire in the company being studied reveals that the questionnaire displayed high reliability in the context in which it was applied.

The Cronbach’s alpha values found for the dimensions investigated meet Streiner’s requirement that the values of the alpha coefficient should be between 0.80 and 0.90 (Streiner, 2003).

Thus, suitable levels of relevance and robustness confirm the reliability of the results obtained for the company being studied.

VII. Analysis of Results

a) Effectiveness

The study required the respondents to roughly classify the EFFECTIVENESS of project management within the company in which they work using the aforementioned Likert-type scale for their assessments.

Figure 3 shows the respondents’ perceptions regarding how well their projects contributed to the achievement of the organization’s strategic objectives.

![General Effectiveness](image.png)

Source: The author (2014)
The results show that, for 85% of the respondents, the projects developed by the company had an average to very high contribution to the achievement of the organization’s strategic objectives.

A similar method was applied to identify the Critical Success Factors for the EFFECTIVENESS dimension using a five-point Likert-type scale where the alternatives indicate the level of importance attributed to the assertion on a scale that varies from 1, indicating no importance, to 5, indicating great importance. Considering that the mean importance value can range from 1 to 5, the values of these two statistical parameters were equalized by interpolation to values between 0 and 100.

The standard errors were presented in association with the mean values, indicating a significance level of 5%.

Figure 4 shows the mean relative importance of the CSF for effectiveness, in decreasing order, obtained from the correlation and from the mean importance declared by the respondents.

Figure 4: Mean relative importance of the CSFs for effectiveness, in decreasing order, obtained from the correlation and mean importance declared

![Graph showing mean relative importance of CSFs for effectiveness](image)


The respondents’ perceptions were in alignment with the organizational structure of the company being studied and with the projects being developed, which displayed a high level of complexity. Of the CSF, Support from upper management in carrying out the business plan and management was seen as value-aggregating by the project managers. Moreover, given the complexity of these projects, it was important to obtain Involvement and commitment of stakeholders, whose expectations and needs help define Clear and realistic objectives for the Effective control of changes. Additionally, due to the strategy of hiring and using Engineering-Procurement-Construction (EPC) specialists, having a Transparent and well-defined hiring process was perceived as critical because it involves the participation of several suppliers, which reinforces the importance of establishing Effective communication channels.

b) Efficiency

The questionnaire requested the respondents to generally classify the EFFICIENCY of project management within their company using the aforementioned Likert-type scale for their assessments.

Figure 5 shows the respondents’ perceptions regarding how well their projects were carried out.

![Graph showing respondents' perceptions regarding efficiency](image)
The results reveal that, for 61% of the respondents, efficiency in the carrying out of their projects was considered average, while 21% of the respondents considered it to be low, and 14% considered it to be high.

A similar method was used to identify the Critical Success Factors for the EFFICIENCY dimension using a five-point Likert-type scale to indicate the level of importance attributed to each statement on a scale that varies from 1, indicating no importance at all, to 5, indicating great importance.

Considering that the mean importance value can vary between 1 and 5, the values for these two statistical parameters have been equalized, by interpolation, to values between 0 and 100.

Standard errors have been presented along with the associated mean values, indicating a significance level of 5%.

Figure 6 shows the mean relative importance of the CSFs for efficiency, in decreasing order, obtained from the correlation and the mean importance declared by the respondents.
The respondents’ perceptions were in alignment with the high degree of complexity of the projects they executed, where having a **Clearly defined and detailed scope** was the basis for efficient project planning. The complexity of the projects further justified the perception of importance of **Project monitoring and control** and having an **Experienced and competent manager** leading the project, at whose disposal were **Sufficient and well-allocated resources** that allowed him or her to stay within a **Realistic budget**.

**VIII. Conclusion and Recommendation for Future Works**

The following research question was addressed: What are the critical success factors that are responsible for achieving efficiency and effectiveness in project management according to project managers in one of Brazil's energy companies?

This study’s central question was answered by identifying the Critical Success Factors that were most often mentioned in theoretical studies and their relationship to effectiveness and efficiency in project management and by classifying these Critical Success Factors in order of importance from the opinions of project management specialists.

Although this study was conducted within a single company, the company is part of a productive chain that corresponds to approximately 10% of the country’s GNP. In international terms, the company has a presence in 27 countries. Moreover, its project portfolio includes approximately 900 projects with budgets in excess of US$ 10 million each, and its business plan for the period from 2013-2017 foresees investments on the order of US$ 230 billion.

As for the project managers who answered the questionnaire, approximately 74% have held this role for over five years in the company being studied, which indicates a favorable level of maturity regarding the level of knowledge of project management. Moreover, 72.2% of the respondents claimed to be PMP-certified, which confirms that the professionals have the technical skills to act as project managers.

To establish a measurement criterion for Critical Success Factors, the perceptions of project managers regarding these factors in relation to effectiveness and efficiency attributes were surveyed using a questionnaire based on the theoretical framework.

Finally, the questionnaire’s quality and reliability were assessed using Cronbach’s alpha coefficient.

This study sought to identify and determine the relevance of the Critical Success Factors that are most often mentioned in theoretical studies along with their relationship to effectiveness and efficiency in project management and their classification, in order of importance, based on the opinions of an energy company's project management specialists.

Based on the results of this work, this article presents three original contributions that may help to advance knowledge regarding the topic studied herein:

The first contribution is to gather the Critical Success Factors most often cited in 63 studies in the international literature into a single study.

The second contribution made by this study is to relate the Critical Success Factors found in the literature to the effectiveness and efficiency of project management. In addition, this study provides the correlation of these Critical Success Factors with **EFFECTIVENESS and EFFICIENCY** attributes in the opinions of an energy company's project management specialists.

The third significant contribution of this study is the identification of the Critical Success Factors that are really significant in explaining the success of project management in the opinions of the specialists, and the assessment of the correlation that each of these CSFs has with the two attributes studied herein: **EFFECTIVENESS and EFFICIENCY**.

For the **EFFECTIVENESS** attribute, the results indicate that, in the respondents’ opinion, the following Critical Success Factors have greater importance to a project's general effectiveness: **Support from upper management, Involvement and commitment of stakeholders, Efficient communication systems, Effective process for hiring suppliers, Effective control of changes, and Clear and realistic objectives**.

For the **EFFICIENCY** attribute, the results indicate that, in the respondents’ opinion, the following Critical Success Factors have greater influence on a project's general efficiency: **Clearly defined and detailed scope, Project monitoring and control, Competent and experienced project manager, Sufficient and well-allocated resources, and Realistic budget**.

This study was limited to analyzing, in the context of project management, only the effectiveness and efficiency attributes, along with their respective Critical Success Factors in order of importance and the correlations between the variables.

It should be noted that the Critical Success Factors analyzed herein may be insufficient to guarantee a project's success given the complex scenario in which a project may be inserted, but, as noted in this study, these CSFs have been considered the most relevant by scholars and project managers.

Based on the results from the present study, the following suggestions can be provided for future studies:

\( a \) Broaden the study to a larger number of companies in the energy sector to compare the management of these organizations;

\( b \) Regarding a project's lifecycle, prioritize and analyze the Critical Success Factors at each project phase;
c) It is also recommended that company maturity level be studied in more detail to identify whether the level of maturity has any influence on the prioritization and correlation of Critical Success Factors and general effectiveness and efficiency in project management.

These suggestions would complement this study because the concept of success in project management and knowledge of the critical factors that are responsible for achieving efficiency and effectiveness in project management may benefit organizations and people.

References Références Referencias


Study on the Impact of Government Complexity and Regional Government’s Size on Human Development Index in North Sumatera, Indonesia

By Doli Muhammad Ja’far Dalimunthe, Fadli & Iskandar Muda

University of North Sumatera, Indonesia

Abstract- This study aims to determine the impact of the government complexity and regional government’s size on the human development index in North Sumatera province. This is an explanatory research survey. The variables used in the study are, namely; the government complexity, size of regional government and human development index. Meanwhile, the population involves all the 33 districts/cities in the North Sumatera with a sample taken from a period of 2005-2012 derived using the purposive sampling approach. In addition, The respondents of this study is on the government apparatus who represent the human development programs’ planners in several offices involved in the Tanjungbalai city and Asahan, South Labuhan Batu, North Labuhan Batu and Batubara districts with the number of 88 people selected as the sample using the purposive random sampling method. The returned questionnaires were 62 questionnaires. This study is a mixture of quantitative and qualitative studies. The result of the study has revealed that simultaneously and partially that the government complexity and the regional government’s size variables simultaneously affect the human development index in North Sumatera.

Keywords: human development index, government complexity, purchasing power parity, population density and regional government’s size.

GJMBR - A Classification : JEL Code: O29, O19
Study on the Impact of Government Complexity and Regional Government’s Size on Human Development Index in North Sumatera, Indonesia

Doli Muhammad Ja’far Dalimunthe a, Fadli σ & Iskandar Muda ρ

Abstract - This study aims to determine the impact of the government complexity and regional government’s size on the human development index in North Sumatera province. This is an explanatory research survey. The variables used in the study are, namely; the government complexity, size of regional government and human development index. Meanwhile, the population involves all the 33 districts/cities in the North Sumatera with a sample taken from a period of 2005-2012 derived using the purposive sampling approach. In addition, The respondents of this study is on the government apparatus who represent the human development programs’ planners in several offices involved in the Tanjungbalai city and Asahan, South Labuhan Batu, North Labuhan Batu and Batubara districts with the number of 88 people selected as the sample using the purposive random sampling method. The returned questionnaires were 62 questionnaires. This study is a mixture of quantitative and qualitative studies. The result of the study has revealed that simultaneously and partially that the government complexity and the regional government’s size variables simultaneously affect the human development index in North Sumatera.

Keywords: human development index, government complexity, purchasing power parity, population density and regional government’s size.

I. INTRODUCTION

Two important factors that are considered to be able to build the human development effectively, are education and health. Both factors are as a basic human need where they can develop the potential in an individual. The achievement of good human development must be accelerated to enable each of the regional governments to obtain optimal results. In addition, the residents should have the opportunity to realize the knowledge and skills to the availability of jobs, so it can be reflected in productive activities that generate revenue. With the income gained, people can meet their needs by increasing their purchasing power which is then followed with the expectation to improve the quality of life and achieve a decent standard of living. These are related to the human development that is further associated with other terms such as economic development and growth, human resource development, welfare and basic human needs approach. The model of economic growth refers to an increase in the income and national product (GNP); human resources puts human development as the inputs of the production process; welfare approach sees human beings as beneficiaries, rather than as the object of basic changes, that focuses on the provision of needs of goods and services. The human development as a subject and object in life functions to improve the quality of life and this is termed human construction. The physical and mental development of human resources implies an increase in the capacity of the population base which will then increase the opportunity to participate in the development process.

One way to measure the success or performance of a country or region in the field of human development is by using the human development index (HDI). Both human development and economic growth are closely related. The achievement in human development requires and improved economic development that will support the increased productivity by engaging employment opportunities with productive efforts so as to create the increase in income. However, it should be noted that the concept of human development is different from the development attended, particularly for economic growth with the assumption that the economic growth will eventually benefit the human beings.

A study conducted by Georgiou (2008) who examined the entrepreneurship and human development index with a panel data analysis for Western Europe, Japan and the United States of the 1980-2006, reveals that the development of the human development index in Europe and Japan is predominantly driven by the creative industries, economic growth, promotion of exports, improvised education, meeting the needs of customers as well as the provision of better health. The panel data show the dominant influence of the variables’ components of the human development index. Meanwhile, Haveri (2006) in his study of complexity in the regional government change finds that the government complexity is the
dominant characteristics of the regional government changes and this complexities exist in the setting-up of the limits for the rational reform process and political leadership. The issue of complexity emerges as a major issue in the regional government in Finland. The practical steps are often difficult to be undertaken by government planners for inter-organizational actions. In a complex situation, there are issues that are constantly changing and are inter-dependent. Further circumstances arise due to the differences of preferences. In the regional government change, the complexity, paradox and uncertainty tend to reduce the managerial candidates and expert knowledge, as the rational calculation does not provide any definitive support for decision-making. Rationally from this perspective, the presence of a bright spot where the changes occur depends on the emergence of political leaders who are willing and able to take responsibility for the reform.

A study on the impact of the regional government size is done by Trueblood and Honadle (1994). They have found that the political process plays a major role in the preparation of planning related to the issue of the development of human resource. Unfortunately, some political parties have emphasized on their own interests rather than to include the human resource factor in the planning preparation of the regional government. In addition, it is revealed that the elements of regional government services are absolutely crucial; the more widened the regional government, the higher form of public service should be provided.

Meanwhile, the findings by Thomas and Boonyapratuang (1993) which discuss that the complexity of the regional governance toward the regional receipts on 14 regions in the state of Texas, establish the results which reveal the insignificant difference in the configuration of the regional government between types of cities and districts. The decision of the regional receipts is also influenced by the configuration of the government type between cities and counties. Such findings have created the policy that is executed in the field of budgeting by the official planners. Thus the governance characteristics play a role in shaping the complexity of the regional government.

A study conducted by Vegirawati (2012) on the effect of the direct spending allocation on the human development quality in cities and districts government of South Sumatera shows that the direct spending cannot predict the human development index. The results of this study differ from those of the previous study by Christy and Adi (2009) revealing that the capital spending is part of the direct spending that has a significant influence on the HDI. The regional governments should choose programs and activities that can be used as a tool to improve the quality of human development through the HDI indicators. The direct spending is incurred for programs and activities to encourage the improvement of the quality of human development, while the indirect spending is not directly related to development activities where its allocation is widely used in financial-oriented development activities such as doctor and teachers’ salaries and other forms of governance administration. Moreover, a study by Badruddin and Khasanah (2011) concludes that indirect spending has no significant effect on the HDI in the city of Yogyakarta. This phenomenon raises the question on the amount of the indirect spending allocated, whereby the average is more than 55% of the overall budget.

The first two indicators of the HDI measure longevity and health, then the next two indicators measure the level of knowledge and skills, while the third one measures the ability to access economic resources in a broad sense. The third indicator is used as the basic component in the preparation of the HDI. Based on the argument mentioned above, the problem formulation in this study revolves around whether or not the government complexity and size of regional government have an impact on the Human Development Index in North Sumatera province. Therefore, the research is expected to provide some benefits such as:

a) As a means of analysis of the government complexity and size of regional government which at a certain extent would leave an impact on the human development.

b) For the regional government in the long run, this analysis can be used as an evaluation tool to assess the effectiveness of the efforts made in the Human Development Index.

c) For the researchers, it is used as an input for further research, particularly with regard to the supporting factors associated with the HDI that in turn can contribute to the development of the human resource management.

The motivation of this study is expected to provide advice and recommendations regarding efforts to increase the effectiveness of the Human Development Index (HDI) in order to support the implementation of good government system.

II. Literature Review

a) Human Development Index (HDI)

According to Georgiou (2008), the Human Development Index (HDI) is a comparative measure of life expectancy, literacy, education and standard of living for all countries around the world. HDI as a classification is used to assess the status of a country; developed, developing or underdeveloped as well as to measure the impact of economic policies on the quality of life. This index was developed in 1990 by a Nobel Prize winner Amartya Sen and Mahbub ul Haq, a
A Pakistani economist assisted by Gustav Ranis from Yale University and Lord Meghnad Desai from the London School of Economics, which had further been used by the United Nations Development Program in its annual HDI reports. The HDI has been described as a "vulgar measure" by Amartya Sen due to limitation it sets. This index is more focused on things that are more sensitive and useful than just the per capita income which has been used. The index is also useful as a bridge for the researchers to know the matters in more detail in the human development reports.

The HDI measures the average achievements in a country in three basic dimensions of human development (Ranis and Frances, 2002) as given below:

- Healthy life and longevity as measured by life expectancy at birth.
- Knowledge, that is measured by the literacy rate in adults (two-thirds weight) and a combination of primary and secondary education on the gross enrollment ratio (one-third weight).
- A standard of living measured by the GDP per capita in the purchasing power parity of purchasing power parity in the US dollar.

b) The Regional Government Size

In a study of the regional government management revolving aspects like regional finance, political budgets, public service, government investment, development planning, public policy, and social and cultural issues the types of regional governments as a variable is also often included. The type of the regional government itself consists of a provincial government, district, city and village whereby each has given a different impact towards the social phenomenon (Prud'homme, 1995).

The districts and cities have some different characteristics, including:

1. From a regional size aspect, a district of the regional government is relatively wider than the city of the regional government. Thus, there are many underdeveloped villages found in a district, while to reach equitable development across the regional bigger budget would be essential.
2. From the population aspect, the density of the population in the district is lower than that of the city. This population density creates some problems for regional governments when it comes to the provisions of employment, education, health and the prevention of social issues.
3. With regard to the people's livelihood, the district population is engaged in agriculture, while the urban population is engaged in trade and services. In the regional policy development, the priority of the district government will be different from the city government.
4. From the governance structure aspect, the urban area consists of sub-districts and villages, while the districts can be divided into sub-districts, villages or small communities. The sub-districts and villages are part of a city or district regional government, which converges in terms of policy-making and regional government budget, while the village is an autonomous region in a district which it has its own budget, including sources of income allocated from the district regional budget.
5. From the socio-cultural aspect, residents of the cities have high level of education and better health than those living in the districts. The public service facilities in the cities are also better than the facilities provided in the districts.
6. From the economic aspect, the average GDP in the district is lower than that in the city. This relates to the proportions of regional receipts which can be levied by regional governments. Meanwhile, the economic activities and income in the cities are also greater than those in the districts (Prud'homme, 1995).

All the sixth characteristics stated above certainly do not include all the differences in the two types of regional governments; cities and districts.

The Regional Government Size may indicate the size of the state Local Government. A large number of residents in an area may reflect budget allocation from the central government for each region in order meet the needs of their respective regions. Local Government which has number of people required to do a lot of good control as accountability to the public (Hartono et al, 2014)

c) The Government Complexity

The complexity of the government with the indicator is the number of population. The higher the number of the population, the more important it is to address the needs of the population, with regard to their health facilities, education and employment preparation (Ingram, 1984; Robbins and Austin, 1986). Meanwhile, the greater complexity of government (the population) resulted in the greater push towards the government on the sufficient facilities to improve the people’s quality of life. Furthermore, the government has attempted to increase the amount of spending in order to meet the needs of the community and have an impact on increasing the Human Development Index (HDI). The complexity of the government with the population indicators has been mentioned by Ingram (1984) and Robbins and Austin (1986).

From the regional aspect, a regional district government is relatively wider than the city regional government. Therefore, in many districts there are underdeveloped villages, while to reach equitable development across the regions a bigger budget would be needed. The higher the direct budget is allocated in
a region, the better the level of the infrastructure in that region. The sufficient educational and health facilities results in the quality of life for the region. In regard of the population aspect, the density of the population in the district is lower than the population density in the city. This population density becomes a constraint for the regional governments as the provision for employment, education, health and the prevention of social problems has to be laid out. Thus, the allocation of the indirect spending planned by a region is higher especially the amount of allowances given to paramedics and doctors from the budgeted indirect spending or the amount of allowances of teachers in charge of various activities to improve the quality of human resources in a region.

d) Conceptual Framework

Below is the proposed model of the study:

![Conceptual Framework Diagram]

III. METHODOLOGY

This study uses an associative-typed research aiming to determine the relationship between two or more variables, where the relationship between the variables analyzed using relevant statistical measures on the testing the hypothesis. Meanwhile, the population in this study includes all the 33 regional government cities/districts in North Sumatera province with a sample taken from a period of years of 2005-2012. Sampling method using purposive sampling criteria.

a) Data Collection Method

The data used in this research is to use primary data and secondary data. Tests conducted with the primary data where to look perception planners related government programs The Government Complexity and Regional Government Size Affect the Human Development Index. In addition, secondary data testing with secondary data indicator. Thus researchers tested mixtures. Secondary data sourced from the websites of the Director General of Fiscal Balance of Regional Government (www.depkeu.djpk.go.id). Meanwhile, the data on the Human Development Index of North Sumatera and government complexity were obtained from the BPS (Central Agency on Statistics) of North Sumatera Province. In addition there was a survey and interviews with respondents representing a number of planners of the human development programs in several offices in the Tanjungbalai city, South Labuhan Batu, North Labuhan Batu and Batubara districts totaling 88 (22 x4) people.

b) Operational Definitions and Methods of Variables’ Measurement

Below is a summary of the Definitions of the operationalization as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
<th>Measurement Criteria</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Index</td>
<td>A single composite indicator of human development, but emphasized on three most important things such as life expectancy at birth, literacy rate and the average length of the schools as a measure of educational attainment as well as consumption expenditure reflects the purchasing power affordability.</td>
<td>HDI Point</td>
<td>Ratio</td>
<td></td>
</tr>
<tr>
<td>Government Complexity</td>
<td>The total population who inhabit in a region. The population is a proxy of the government complexity</td>
<td>Total population in a period of time</td>
<td>Total population in a region</td>
<td>Ratio</td>
</tr>
<tr>
<td>The Size of Regional</td>
<td>The size of government in terms of aspects of land area, population, livelihoods, governance</td>
<td>Land area, population, livelihoods, governance</td>
<td>Land area, population, livelihoods, governance</td>
<td>Ratio</td>
</tr>
</tbody>
</table>
c) Analysis of the Model

The specification of the model used in this study was adapted from several previous studies by making adjustments that are considered able to provide better results to explain the determinants of human development in North Sumatra province. The model constructed is a mathematical function as follows:

\[ IPM = f (\text{The Size of Regional Government}/\text{SRG}) \text{ and Complexity of Government }/\text{CoG}) \ldots. \]  

(1)

From function (1), it can be modified into a multiple regression analysis using the generalized linear regression method with the consideration that the object of the cross data is greater than the number of coefficients.

\[ Y_i = a + b_1X_1 + b_2X_2 + \epsilon \ldots \]  

(2)

Where:

- \( Y \) = Human Development Index
- \( X_1 \) = The Size of Regional Government
- \( X_2 \) = Complexity of Government
- \( b_1, b_2 \) = Regression Coeffecient
- \( \epsilon \) = Error Term

The model is applied to the SPSS Version 21. The test aims to check whether or not a violation of the classical assumptions in the model has occurred, which is used as the basis of the multiple linear regression. This is done prior to the hypothesis testing.

IV. Findings and Discussion

a) Description of Data

The respondents scattered in the Tanjung Balai city government total 15 respondents, Asahan District has 11 respondents, Batubara District has 12 respondents, South Labuhan Batu District has 10 respondents and North Labuhan Batu District has 12 respondents.

b) The Analysis of Instruments Measures

i. The Variable of Government Complexity (\( X_1 \))

The results of the questionnaire’s validity and reliability of the government complexity variable (\( X_1 \)) can be seen in Table 4 below:

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>kp1</td>
<td>12.5000</td>
<td>2.254</td>
<td>.641</td>
</tr>
<tr>
<td>kp2</td>
<td>12.3548</td>
<td>2.888</td>
<td>.569</td>
</tr>
<tr>
<td>kp3</td>
<td>12.2097</td>
<td>3.119</td>
<td>.460</td>
</tr>
<tr>
<td>kp4</td>
<td>12.3387</td>
<td>3.375</td>
<td>.440</td>
</tr>
</tbody>
</table>

Source: Data Output, 2014. KP is government complexity indicators.

Table 4 shows that the 4 items’ questions of the variable are valid and can be used for the analysis if the value of Corrected Item-Total Correlation is greater than r product moment (60-2 = 58) of 0.250. Thus the items’ questions of 1 to 4 all are all valid questions.

ii. The Variable of Regional Government’s Size (\( X_2 \))

The results of the questionnaire’s validity and reliability of the variable the regional government’s size (\( X_2 \)) can be seen in Table 5. below:

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>upd1</td>
<td>11.5484</td>
<td>4.121</td>
<td>.389</td>
</tr>
<tr>
<td>upd2</td>
<td>11.6774</td>
<td>4.288</td>
<td>.513</td>
</tr>
<tr>
<td>upd3</td>
<td>11.6774</td>
<td>3.304</td>
<td>.563</td>
</tr>
<tr>
<td>upd4</td>
<td>11.9355</td>
<td>3.537</td>
<td>.539</td>
</tr>
</tbody>
</table>

Source: Data Output, 2014. UPD is Regional Government’s Size indicators.

Table 5 shows that the 4 items’ questions of the variable are valid and can be used for the analysis if the value of Corrected Item-Total Correlation is greater than r product moment (60-2 = 58) of 0.250. Thus the items’ questions of 1 to 4 all are valid questions.

iii. The Variable of Human Development Index (\( Y \))

The results of the questionnaire’s validity and reliability of the variable, the human development index (\( Y \)) can be seen in Table 6 below:
Table 6: Validity Test for Human Development Index Variable Item-Total Statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>psdm1</td>
<td>15.9839</td>
<td>3.754</td>
<td>.422</td>
<td>.514</td>
</tr>
<tr>
<td>psdm2</td>
<td>16.0968</td>
<td>3.236</td>
<td>.574</td>
<td>.418</td>
</tr>
<tr>
<td>psdm3</td>
<td>16.0806</td>
<td>4.141</td>
<td>.254</td>
<td>.603</td>
</tr>
<tr>
<td>psdm4</td>
<td>16.0323</td>
<td>3.966</td>
<td>.420</td>
<td>.521</td>
</tr>
<tr>
<td>psdm5</td>
<td>16.0000</td>
<td>4.328</td>
<td>.168</td>
<td>.649</td>
</tr>
</tbody>
</table>

Source: Data Output, 2014. Psdm is Human Development Index indicators.

Table 6 shows that the 5 items’ questions of the variable are valid and can be used for the analysis if the value of Corrected Item-Total Correlation is greater than product moment (60-2 = 58) of 0.250. Thus items of 1 until 4 are valid, while the item 5 is invalid because its product moment r value is lower than 0.250. The questionnaire is designed in the Likert scale form which consists of 5 questions with 5-point interval scale ranging from strongly disagree (1) to strongly agree (5). The variable measured using an instrument that was adopted and developed from Prud’homme (1995) and Trueblood et al (1994).

Reliability test results of the research instruments as follows in Table 7 below:

Table 7: Reliability test with Cronbach’s Alpha

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Cronbach Alpha</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Y)</td>
<td>.603</td>
<td>Reliable</td>
</tr>
<tr>
<td>2</td>
<td>(X1)</td>
<td>.730</td>
<td>Reliable</td>
</tr>
<tr>
<td>3</td>
<td>(X2)</td>
<td>.708</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Data Output, 2014.

Based on the results of the reliability test on the variable Y to 5 items obtained Cronbach’s Alpha question of 0.603 or 60.3% so that all questions relating to the Y otherwise reliable. For variable X1 reliability test results in the appendix shows that Cronbach Alpha was 0.730 or 73% so that four (4) questions relating to the X1 otherwise reliable. Further to the reliability test results in Appendix X2 is obtained that the magnitude of Cronbach Alpha is 0.708 or 70.8% thus four (4) questions relating to the X2 otherwise reliable.

c) Primary Data Analysis

i. Classical Assumption Analysis

The classical assumptions analysis consists of normality, multicollinearity and heteroscedasticity tests.

a. Normality Test

Based on the test results for normality using the Kolmogorov Smirnov test and by looking at the graph, it is concluded that the residuals were normally distributed. If the probability value Asymp. Sig (2-tailed) on the Kolmogorov Smirnov test is greater than 0.05, it can be stated that the data were normally distributed, otherwise if the probability Asymp. Sig (2-tailed) less than 0.05, thus the data were not normally distributed (Ghozali, 2005).

Figure 2: Normal P-Plot of Regression Standardized Residual

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By looking at the graphs displayed in Figure 2, it can be concluded that the data spread around the diagonal line, and follow the direction of the corresponding diagonal line. This shows that the data residuals were normally distributed. Similarly, with the results of the histogram graph in Figure 3, it shows that the data residuals were normally distributed, as seen from the picture in a bell form that is almost perfect (symmetrical).

b. Multicollinearity Test

The multicollinearity test aims to see if there is a correlation (or otherwise) between the independent variables in the regression model. A good regression model should not exhibit any multicollinearity. One way to detect it is by looking at the value of the Variance Inflation Factor (VIF). According to Santoso (2002), if VIF > 10, the variable has a problem of multicollinearity with other independent variables.

Table 7: Multicollinearity Test Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X1</td>
<td>.878</td>
<td>1.139</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.878</td>
<td>1.139</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y

Source: Output Result SPSS 21

As depicted in Table 7, it appears that the independent variables of government complexity (X1) and the government size (X2) have VIF below 10 (Ghozali, 2005). This means, the regression that is used for the two independent variables establishes that there is no multicollinearity problem.

c. Heteroscedasticity Test

The test result concludes that the heteroscedasticity does not occur in the regression model. It can be seen from the scatterplot in which the points are spread randomly or that they do not form a specific pattern clearly, and scattered both above and below the 0 on the Y axis (Ghozali, 2005).
The Goodness of fit testing is done to determine the feasibility of a regression model. Having the two variables, the feasibility can be seen from the value of Adjusted R Square.

### Table 8: Feasibility Model Test Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.760a</td>
<td>.577</td>
<td>.563</td>
<td>2.36644</td>
<td>1.237</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X2, X1  
b. Dependent Variable: Y

Source: Data Output SPSS, 2014.

As depicted in the Table above, the Adjusted R-square value is 0.563. This shows that 56.3% of government complexity and regional government size variables affect the human development index in North Sumatera. The remaining amount of 34.7% affected by other variables are not explained by the model of this study.

### Hypothesis Test Model

#### i. Simultaneous Significance Test (F Test)

The government complexity and regional government size variables simultaneously affect the human development index. The significance of the indicator parameter of coefficient Adjusted R^2 can be tested with the help of the statistical methods of Fisher’s test (F test) with a level of confidence of 95%. The criteria apply when the F > F_{table} then H_0 is rejected; and if F ≤ F_{table} then H_0 is acceptable. This is shown in:

### Table 9: Result of Regression (F Test) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>450.840</td>
<td>2</td>
<td>225.420</td>
<td>40.253</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>330.402</td>
<td>59</td>
<td>5.600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>781.242</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y  
b. Predictors: (Constant), X2, X1

Source: Data Output SPSS.

As depicted in Table 9, it shows that F value is 40.253 while the F_{table} at the 99% confidence level (α = 0.01) is 5.80. This means that the value of F > F_{table} (40.253 > 5.80). Thus the H_0 rejected, while H_1 is accepted.

#### ii. Partial Significance Test (t Test)

Partially, both variables of government complexity (X_1) and regional government size (X_2) which affect the human development index in North Sumatera is acceptable, as stated in the following Table:

### Table 10: t Test Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-3.662</td>
<td>2.593</td>
<td>-1.412</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>.435</td>
<td>.148</td>
<td>.265</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.901</td>
<td>.130</td>
<td>.626</td>
</tr>
</tbody>
</table>

Source: Data Output SPSS, 2014.

Based on the Table 10 above, the multiple regression is formulated as follows:

Y = -3.662 + 0.435X_1 + 0.901X_2 + e

The multiple regression model means are as follows:

1. A constant value of -3.662, means that if the values of government complexity and regional government size variables are zero, then the dependent variable of human development index will decrease by 3.66 units.
2. The variable of government complexity (X_1) positively affects the human development index with the coefficient value of 0.435, meaning that for every 1 unit increase in government complexity, it will raise the human development index by 4.35 units.
3. The variable of regional government size (X_2) positively affects the human development Index with
the coefficient value of 0.901, meaning that for each increase of 1 unit of the regional government size, then it will increase the human development index by 9.01 units.

As represented in Table 9, it shows that the variable of government complexity (X1) (2.928 > ttable) affects significantly the human development index where the value of t > ttable. Thus H0 is rejected and H1 accepted. In addition, the variable of regional government size (X2) with a positive direction (6.926 > 1.980) significantly affects the human development index in North Sumatera where the value of t > ttable. Thus H0 is rejected and H1 accepted.

e) Description of Data

Based on the results of the data processing, the statistical description can be seen in Table 11 as follows:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>200</td>
<td>34542</td>
<td>2121053</td>
<td>475995</td>
<td>497088</td>
</tr>
<tr>
<td>X2</td>
<td>200</td>
<td>10.77</td>
<td>12163.65</td>
<td>2508.21</td>
<td>2448.90</td>
</tr>
<tr>
<td>Y</td>
<td>200</td>
<td>63.20</td>
<td>78.27</td>
<td>73.0784</td>
<td>2.7879</td>
</tr>
</tbody>
</table>

Valid N (listwise) 200

Source: Data Output SPSS Versi 21, 2014.

The table shows the variable of government complexity (X1) with an indicator of the large number of residents. Based on 200 observations from year 2005 to 2012 in 25 districts/cities, the maximum value reached 2,121,053 people and the lowest minimum population of 34,542 people. The average value reached 475,995 people with an average of standard deviation of 497,088 people. The results show a population imbalance occurring among the districts/cities. For the variable of regional government size (X2) the maximum regional size is indicated to be 12,163 km² and the smallest regional size is 10.77 km². The average of regional size is 2,508.21 km² with an average of the standard deviation of 2,448.90 km². Meanwhile, for the variable of the Human Development Index (Y), the highest HDI was 78.27 points, the lowest was 63.20 points and the average HDI was 73.07 points with a standard deviation of 2.78 points.

f) Secondary Data Analysis

i. Classical Assumption Analysis

The classical assumptions analysis consists of normality, multicollinearity and heteroscedasticity tests.

a. Normality Test

![Figure 5: Normal P-Plot of Regression Standardized Residual](image)
By looking at the graphs displayed in Figure 5, it can be concluded that the data spread around the diagonal line, and follow the direction of the corresponding diagonal line. This shows that the data residuals were normally distributed. Similarly, with the results of the histogram graph in Figure 6, it shows that the data residuals were normally distributed, as seen from the picture in a bell form that is almost perfect (symmetrical).

b. **Multicollinearity Test**

As depicted in Table 12, it appears that the independent variables of government complexity ($X_1$) and the government size ($X_2$) have VIF below 10 (Ghozali, 2005). This means, the regression that is used for the two independent variables establishes that there is no multicollinearity problem.

c. **Heteroscedasticity Test**

The test result concludes that the heteroscedasticity does not occur in the regression model. It can be seen from the scatterplot in which the points are spread randomly or that they do not form a specific pattern clearly, and scattered both above and below the 0 on the Y axis (Ghozali, 2005).
ii. *Goodness of Fit Model Test*

The Goodness of fit testing is done to determine the feasibility of a regression model. Having the said two variables, the feasibility can be seen from the value of Adjusted R Square.

### Table 13: Feasibility Model Test Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.384(^a)</td>
<td>.148</td>
<td>.139</td>
<td>2.58689</td>
<td>1.496</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X2, X1  
b. Dependent Variable: Y  

*Source: Data Output, SPSS. 2014*

As depicted in the Table above, the Adjusted R-square value is 0.139. This shows that 13.9% of government complexity and regional government size variables affect the human development index in North Sumatera. The remaining amount of 86.1% affected by other variables are not explained by the model of this study.

**g) Hypothesis Test Model**

i. *Simultaneous Significance Test (F Test)*

The government complexity and regional government size variables simultaneously affect the human development index. The significance of the indicator parameter of coefficient Adjusted R\(^2\) can be tested with the help of the statistical methods of Fisher's test (F test) with a level of confidence 99%. The criteria used are when the F > F\(_{table}\) then Ho is rejected; and if F ≤ F\(_{table}\) then Ho is acceptable. This is shown in Table 14:

### Table 14: Result of Regression (F Test) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2</td>
<td>114.210</td>
<td>17.067</td>
<td>.000(^b)</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>197</td>
<td>6.692</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y  
b. Predictors: (Constant), X2, X1  

*Source: Data Output, SPSS.*

As depicted in Table 14, it shows that the F value is 17.067 while the F\(_{table}\) at the 95% confidence level (\(\alpha = 0.001\)) is 5.80. This means that the value of F > F\(_{table}\) (17.067 > 5.80). Thus the Ho is rejected, while H1 is accepted.

ii. *Partial Significance Test (t Test)*

Partially, both variables of the government complexity (X\(_1\)) and regional government size (X\(_2\)) affecting the human development index in North Sumatera are acceptable as stated in the following Table:

### Table 15: t Test Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>73.434</td>
<td>.297</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X1</td>
<td>1.367E-006</td>
<td>.000</td>
<td>.244</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.000</td>
<td>.000</td>
<td>-.352</td>
</tr>
</tbody>
</table>

*Source: Data Output, SPSS. 2014.*

From Table 15 above, the formulated equation of the multiple regression is as follows:

\[ Y = 73.434 + 1.367E-006X_1 + .000X_2 + e \]

The multiple regression model means are as follows:

1. A constant value of 73.434, means that if the values of the government complexity and regional government size variables are zero, then the dependent variable of the human development index will decrease by 73.44 units.
2. The variable of government complexity \((X_1)\) positively affects the human development index with the coefficient value of \(1.367E-006\), meaning that for every 1 unit increase in the government complexity, then it will raise the human development index by 0.136 units.

3. The variable of the regional government size \((X_2)\) positively affects the human development Index with the coefficient value of 0.000, meaning that with each increase of 1 unit of the regional government size, it will increase the human development index by 0.00 units.

As depicted in Table 15, it shows that the variable of government complexity \((X_1)\) affects the human development index significantly where the value of \(t > t_{table}\). Thus \(H_0\) is rejected and \(H_1\) accepted. In addition, the variable of the regional government size \((X_2)\) with a negative direction \((-5.238 > 1.980)\) significantly affects the human development index in North Sumatera where the value of \(t > t_{table}\). Thus, \(H_0\) is rejected and \(H_1\) accepted.

V. Discussion

Based on the primary and secondary data, the hypothesis states that the government complexity and size of the regional government affect the Human Development Index in North Sumatera. The results of this study are consistent with the results found by Thomas and BoonyApratuang (1993); Trueblood and Honadle (1994); Haveri (2006) and Georgiou (2008).

In planning its program, the regional government has considered the performance achievement of minimum service standards established in accordance with the legislation. If the human development index is low, it will determine the level of individual well-being, which in turn also determines the level of social welfare in general. The HDI is a way to measure the level of physical and non-physical qualities of the population.

The extent and magnitude of the regional government influences the shape of the public services provided. The coverage of the physical qualities is reflected in life expectancy; while the non-physical qualities are shown through the length of the average population education and literacy rate. The level of human development achievements has gained the attention of the state officials where the development outcomes can be measured and compared. The index has also been used by the United Nations in setting up a standard measure of human development internationally. This composite index is formed by four component indicators namely; life expectancy, literacy rates, average length of the education and the purchasing power parity (PPP). The indicators of life expectancy reflect the dimensions of healthy living and longevity; the indicators of the literacy rate and the average length of the schools represent the output of the education dimension; the purchasing power affordability indicator describes the dimensions of a decent life. Thus, it has made the HDI to be used as a manifestation in human development whereby it can be interpreted as a success in improving abilities and expand human choices. Contribution of this research are (a) as a means of analysis of the complexity of the Government and the Regional Government size how its impact on human development. (b) for local governments, in the long term, this analysis can be used as an evaluation tool assessing the effectiveness of efforts to improve the Human Development Index (HDI) and (c) this study suggests that further research, particularly with regard to the Human Development Index research on the factors that support for the development of the Human Development Index and thus contribute to the development of Science in Human Resource Management and Public Sector Government.

VI. Conclusion and Recommendation

The conclusions of this research are as follows:

1. Simultaneously, the government complexity and regional government size affect the Human Development Index in North Sumatera.
2. Partially, the government complexity and regional government size affect the Human Development Index in North Sumatera.
3. The results of this study are consistent with the results found by Thomas and BoonyApratuang (1993), Trueblood and Honadle (1994), Haveri (2006) and Georgiou (2008).

Meanwhile, this study has several recommendations which can be considered as follows:

1. The variables’ elements of entrepreneurship, advertising-marketing, economic growth, unemployment rate, welfare, living standards, education, health, life expectancy as well as the form of capitalistic system may be worth to be considered in the future on determining the variables of human development.
2. As this study has focused on the problems of the Human Development Index in the East Coast of North Sumatera, we can probably expand the research object to the West Coast of the Northern Sumatera.

The limitations and future directions of this study are:

1. This research was not conducted a study to incorporate elements of variable Entrepreneurship, advertising-marketing, economic growth, unemployment rate, welfare, living standards, education, health, life expectancy, as well as the form of capitalistic system that plays a major role in determining the level of human development.
The next model can be compiled with the data panel models (time series cross-sectional).

References Références Referencias


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Motivational Profile and the Inclination of the Career Information Technology Professional

By Evelyn s. Martins & Fernando Contreras

FGV - Fundação Getulio Vargas, Brazil

Abstract - The area of information technology (IT) has undergone constant changes that, consequently, impact directly on professional and in companies that work with this sector. The aim of this study was to identify the profile and motivational inclination in the career of IT professional. This is a field where applied questionnaires closed in professionals. The sample was composed of 27 professionals in companies participating in the CIO of Rio Grande do Sul. The two instruments used were the inventory of Schwartz values (IVS) that offer some perspectives of appreciation of employee matching your goals and interests, and the other instrument was the questionnaire by Edgar Schein on professional inclination, which allows you to identify the relationship and prospects of those with work and their lives. With the results exposed it was found, that it professionals surveyed here are self-determined, individuals value the lifestyle, are benevolent and hedonists, seek well-being and job satisfaction and love challenges. I concluded then that professionals and students are or will be mostly professionals in search of constant challenges and personal and professional satisfaction, adapting the work in the best possible way to your lifestyle.

GJMBR - A Classification: JEL Code: M15

Strictly as per the compliance and regulations of:
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I. INTRODUCTION

The recent years have been marked by great technological development in multiple threads. The information technology sector is one of whom has experienced the fastest transformations. The connection of computers with telecommunications and information resources originated the technological revolution in which we live, promoting changes in people's way of life. This new lifestyle is being marked by the computer age that brought with it the need for the emergence of new professions to meet the needs of knowledge and development of this area.

Professionals in the area of information technology (IT) have been increasing their importance to business performance. Advances in computing and communications technologies are affecting the processes of generation, distribution and storage of knowledge in organizations.

It Pros are the current responsible for the evolution of the technological world. Concurrently with this evolution of technology and new professionals a new kind of relationship seems to be occurring between the professionals of this area and businesses; being, then, the profile of this little-known relationship, making necessary studies that clarify this new professional profile. Demands are made of professionals with regard to differentiated knowledge and ability to act in the current business environment.

Schein (1978 apud KILIMNIK; CASTILHO; Samant, 2006), defines slope of career as being the set of self-perceptions for the talents and skills, motives and needs, attitudes and values that people have with respect to work developing or seeking to develop. According to Tanner (philosophy Dept.) (2004), refers to the forces that drive each person to a certain behavior, i.e. are the variables intrinsic to the job and that influence the degree of satisfaction of people at work because inclination of career is based on interaction between skills, motives and values in total self-concept. In relation to the inclination of career in the professional life of a person, Kilimnik, Castilho and Sant'Anna (2006) comment that can be used to guide, mark out, stabilize and integrate the career of a person.

According to Oliveira (2002), the motivational process can help the institution with respect to productivity to the same extent that the group based on different ways of motivation will achieve the best way to achieve the so-called efficiency. Wondering how is the motivation of people and what can be done to motivate them, as well as, know what are their values and what they want from their professions, it is crucial for the development of the company and the people.

The complexity of factors that involve human behavior and also the need to generate responses to new forms of life led to the investigation of different areas of knowledge, in order to contribute to the maintenance of the individual motivated in the company.

The organizational values, originated from human values, have been highlighted as a management tool for performance, due to the large subjectivity that permeates the theme, very much appreciated by social psychologists (ROKEACH, 1981; SCHWARTZ, 1992, SCHEIN, 1993, TAMAYO;PASCHOAL, 2003), social scientists and politicians, but very little for business managers.

According Tamayo, Mariano and Paz (2001), values are guiding principles for the life of the organization. Fail to consider the importance of this theme in the analysis of the company's performance would be a ravenous abstraction.

The values are able to influence the actions, choices and human behavior, interfering in the way in which the individual judges himself and others. They may be perceived, both as a product, as a point of...
reference for the process of reflection and evaluation of desires (SCHWARTZ; LACEY, 1995). The values in this sense, affect people's reactions about his work, and allies to motivations and to stimulate talent career decisions (SCHEIN, 1996), the ambitions of professional life and the satisfaction of priority needs of the individual.

The self-knowledge, the centrality of the structure of personality, triggers the recognition of personal demands, which include career preferences. Starting from this premise, you can infer the existence of a close relationship between the values and the slopes of career, since those are personal priorities and needs that guide attitudes, choices and behavior (STACKMAN et al., 2004 apud ABRAHIM, 2008).

Understanding the influence of human values in determining the professional inclinations allows knowing how the professionals receive influence predispositions of centrality of the cognitive system, that is, of the values, which are designed as criteria capable of influencing the actions, choices and human behavior, interfering in the way in which the individual judges himself and others. In this sense, the human values affect people's actions on your work; allies to motivations and talents, stimulate career decisions (SHEIN, 1993). The studies of the Massachusetts Institute of Technology identified eight categories of career leanings, which are stimulated by appetites, feelings and needs which are established from the self-concept. Starting from this premise, you can infer the existence of a close relationship between human values and professional inclination. The study emphasizes the values and the slopes in the career of future it professional, whose growth is increasingly at universities and in companies.

II. THE MOTIVATIONAL STRUCTURE OF VALUES

It is very important to the study of values within the context of the Administration and management of people, because within these there are numerous factors related directly to values. The values that determine the behavior and performance of employees; influence in the vision that employees have of the company, colleagues and their managers (TAMAYO, 2000). Knowing the values of its employees, the relationship of the company with the same would be facilitated, which may generate strategies that could lead to competitive advantages.

According Tamayo (2000), which seeks in his work is determined by your needs, by their values, and the values of others. The values determine the options of people as well as the emotional responses to these options. According Tamayo and Paschoal (2003), the demand of employee in the company is directly related to how he is treated and respected; your demand depends also if it finds the Organization opportunities that meet your needs and help you achieve your goals and expectations, through the activity of the work. When the individual joins a company has as basic interest increase profit of the same, but satisfy their personal needs of various orders. If the employee is not at work the means to satisfy your expectations, you won't feel a relationship of Exchange and exploration.

According Tamayo and Paschoal (2003), the motivational structure of a person is based on the set of targets which activate your behavior and the relationship between these motivations. Motivational profile refers to the importance that the motivations that drive his life have for each person.

To Rokeach (1973 apud TAMAYO; PASCHOAL, 2003), the values represent the cultural requirements, in addition to the individual needs. The goals and intentions regarding the three basic elements of motivation: intensity, direction and persistence.

The motivational structure serves as a reference for drafting the motivational profile, which consists of the relative importance that each one of the motivations for each person. Through this structure you can determine what are the motivations and most important goals for the employee.

The values can be set as the goals fixed for the individual himself, concerning States of existence (terminal values) or desirable behavior models (instrumental values). According Tamayo (2000), its root is motivational intent, because express interests and individual, collective or mixed desires. The values show a hierarchy of the greater or lesser importance and a function that determines the daily routine of the individual establishing thus his way of acting, thinking and feeling.

Depending on the type of motivation or goal that the value expressed will make the difference between a value and another. According Tamayo et al. (2001), The motivational types of values were deducted from the basic requirements of human beings, namely: 1) biological needs of the organism, 2) social needs concerning the regulation of interpersonal interactions, 3) socio-institutional needs regarding the survival and welfare of groups (TAMAYO et al., 2001).

The motivational types already verified empirically are presented below.

a) Hedonism

The gratification of physical needs is transformed into a socially recognized values. The goal of this group of motivational values is the pleasure and sensual gratification for himself (TAMAYO, 2002, 2007). As an example of values has the pleasure and self-indulgence. It's an individual interest (TAMAYO et al., 2001). A hedonistic person is a person also stimulated in search of changes that will always be in front, to always be better than colleagues; be better than the...
other, not to contribute, but to maintain a position, that is what motivates.

b) **Self-realization**
   
   Your goal is personal success obtained by a demonstration of competence that usually leads to social recognition (TAMAYO, 2002, 2007). Example of values is being successful, capable, influential, ambitious. The self-realization is considered an individual interest (TAMAYO et al., 2001). The motivational type realization (Self-realization) is directly linked to the quest for power, in that the greater the power, the greater the achievement.

c) **Social power**
   
   The goal of this type of value is the demand for status, prestige and social control over people and resources (TAMAYO, 2002, 2007). Example of this type is the concern with the power, wealth and authority. Is characterized by being an individual interest (TAMAYO, et al., 2001).

d) **Self-determination**
   
   The values of self-determination seeking independence of thought, action, option, curiosity, creativity, freedom to choose their own targets (TAMAYO, 2007). Has an example of values freedom, creativity, curiosity and independence. It is characterized by an individual interest (TAMAYO, et al., 2001).

e) **Compliance**
   
   Your motivational goal is the control of impulses and the own behavior in accordance with social expectations (TAMAYO, 2002, 2007). Example values are obedience, politeness, self-discipline. Compliance is considered as a collective interest (TAMAYO et al., 2001).

f) **Benevolence**
   
   The values that make up the motivational type benevolence are: availability, honesty, loyalty, responsibility, friendship, maturity and work. The motivational goal is the interest and concern for the well-being of people intimate (TAMAYO, 2002, 2007). Is of type helpful, loyal, forgiving, and worries about the collective interest (TAMAYO et al., 2001).

g) **Security**
   
   The goal of the values of this type is the personal integrity and identification of people and groups, as well as the stability of society and of himself (TAMAYO, 2002, 2007). With interest in the social order, family safety, cleaning and revealing a joint interest (TAMAYO et al., 2001).

h) **Tradition**
   
   The goal of the figures relating to the motivational tradition is the respect and acceptance of the ideals and customs of their society (TAMAYO, 2002, 2007). Respect to tradition, moderation, devotion and collective interest are its characteristics (TAMAYO et al., 2001).

i) **Stimulation**
   
   Need for excitement, novelty and change in order to be able to maintain a satisfactory level of operation (TAMAYO, 2002, 2007). Life varied, exciting life and individual interest (TAMAYO et al., 2001).

j) **Philanthropy**
   
   The goal of this group of motivational values is the quest for the well-being of all. Schwartz calls this motivational type "universalism" (TAMAYO, 2007). Are your feature: equality, social justice, wisdom, respect for nature, a world at peace, equality, inner harmony, dream; It is a joint interest (TAMAYO et al., 2001).
   
   The motivational types of values relate to each other dynamically. The relationship has been verified through the method of analysis of smaller space that is a multidimensional analysis technique designed to determine the similarity of structure data. Through her values are represented as points in multidimensional space, in such a way that the distances between them express the empirical relationships between values, determined from the correlations among their degrees of importance, according to the responses of subjects (TAMAYO et al., 2001). The values in the service of individual interests are opposite to those that serve collective interests (SCHWARTZ, 1992; TAMAYO; SCHWARTZ, 1993 apud TAMAYO, 2007). Thus, postulate two basic types of relationships between them: compatibility and conflict. On the motivational structure, the five types of values that express individual interests (self-determination, stimulation, hedonism, achievement and social power) occupy a contiguous area that is opposite to that reserved for three sets of values that express primarily collective interests (benevolence, tradition and conformity).
   
   Empirical studies carried out by means of multiple regression have shown consistent ratio of motivational dynamics with the prediction of the behavior at work and in life in General (TAMAYO et al., 2001). Axiological priorities of the individual expressing, in addition to their motivations, their conceptions of what is good for himself, to society and to the organization where he works.
   
   Motivational profile is elaborated based on the motivational structure, consisting of the relative importance that each one of the motivations for each person. The profile therefore implies a hierarchy of importance among the various motivations of the worker. Through this, one can distinguish what are the motivations and goals more important to him, as well as those occupying a second or third plane. In addition, the detailed analysis of personal motivation may be supplemented through integration of the ten motivations in two-dimensional structure, which allows a more global vision, and maybe more consistent, the organization
and direction of employee motivational forces (TAMAYO; PASCHOAL, 2003).

According Tamayo and Paschoal (2003), the 10 employee motivators feature a two-dimensional structure. The four poles that make up these two dimensions represent the person's motivations and define four motivational sets, which are the fundamental openness to change, conservation, self-transcendence and self-promotion.

Seeks to change expresses expectations and goals that can be attained through the autonomy given to the worker to perform his work, thus offering you opportunities to create and innovate.

To the opposite side, are interests and expectations of the person in relation to conservation. The occupational safety and in the job, salary, clear and precise objectives and standards, quality circles, appropriate physical space, regular schedule and favorable conditions for the execution of the work, constitute appropriate organizational actions to meet the expectations and targets related to this motivational side.

The motivation of self-transcendence focuses on collective results and well-being of everyone in the organization. The goals for this motivation can be attained through a pleasant social environment, without conflicts, with opportunities to interact with colleagues and customers. Finally, the self-promotion, which expresses mainly targets related to personal results, requires organizational actions such as those related to financial incentives, benefits, opportunities to promote recognition of merit.

To enable the adequacy between the motivational profile of the worker and concrete actions of motivation is necessary to be able to determine the motivational profile of employees to be able to identify from the predominant motivations and power, from these data, draw up strategies of motivation to work. One of the best and most suitable instrument for this evaluation is the inventory of Schwartz values (IVS).

Tamayo (2007), while researching the Transcultural Values hierarchy and Brazilians, used as a method to scale prepared by Schwartz (1992) for a multicultural research. It consists of 57 values. Were also introduced over four values, two terminals (and vanity) and two instrumentals (smart and dreamer), postulated as being peculiar to the Brazilian culture.

Identify the motivations of professionals regarding personal professional leanings was another objective of this work. Schein (1978 apud KILIMNIK, 2006) defines professional inclination as being the set of self-perceptions for the talents and skills, motives and needs, attitudes and values that people have with respect to work developing or seeking to develop. The instrument used to identify the student and Professional Inclination of the it Professional is based on the book by Schein.

Are described the characteristics of each type of reference to see how people with different inclinations differ from each other, according to Schein (1996).

a) Technical-professional Fitness

What motivates this kind of person is exercising their skills and the satisfaction of knowing that they're experts. The type of work for individuals with these characteristics is the challenge. In addition to continuing education, this group values the formal recognition.

b) Fitness in General

Fundamental values and goals for this group of people are summed up in the steps to achieve the company's hierarchical higher levels of responsibility, have the opportunity to lead, contribute to the success of your organization and receive high yields.

c) Autonomy

Independence People with a penchant for autonomy and independence do not support rules, methods, work hours and other rules common to virtually any type of organization. Regardless of your business, these people like to do things your way, at your pace and according to their own standards.

d) Security stability

People with inclination to make security a predominant factor throughout their careers, to guide and limit their main professional decisions. These people typically seek employment in organizations that provide security and stability.

e) Entrepreneurial Creativity

Some people have a great need to create new businesses themselves, developing new products or services, organizing new companies or managing them according to your specifications and they succeed.

f) Willingness to serve, dedication to a cause

Individuals with features serving give values to help humanity, the nation, and to dedicate himself to a cause. People in this group want a job that will allow them to influence the organizations that employ them or social policy, in the direction of its values.

g) Pure challenge

Some people are based on the perception that can conquer anything or anyone. For them, success is impossible or overcome obstacles overcome strong opponents. Living in the world where everything is to compete and win.

h) Lifestyle

This type of person prefers flexibility above all. People-oriented lifestyle seeking one more organizational attitude than a specific program, an attitude that reflects respect for personal and family interests. Who has this slope likes to reconcile personal, family and professional needs.
Almost everyone can identify their true inclinations if they submit themselves these situations of choice (Schein, 1996). The reference points do not change, can sometimes, lack of experience, not being well formed. People can try to adapt to the situation, but their leanings will not change; as soon as an opportunity arises, will combine better occupation and professional inclination.

Is of fundamental importance to combine the individual needs with organizational, so the professional must have their professional inclination perception in order to better plan their careers and be able to make better choices. The complicated in this process are individual differences as well as the differences between the companies. Organizations should better analyze the specific features of the different functions to be exercised in a particular career and clarify them to individuals who are interested in pursuing such a career.

III. Methodology

This work made use of the technique of questionnaires characterized as a field research, which is one that aims at obtaining and empirical data. In the development of this survey questionnaires were used.

The sample universe refers to it professionals. The sample was composed of professionals that make up the CIO of RS. It is a probabilistic sample by conglomerates.

Were two chosen instruments: the two questionnaires used are characterized by being structured questionnaires, i.e. consist of closed questions. There was, before the questions, a letter of introduction, explanation and thankfulness. Some of the instruments were the questionnaire of Schein (1996), which sought to identify the motivations of professionals regarding personal professional inclinations. The other is the Inventory of values of Schwartz, who checked the motivational profile and tilting it professional's career.

Professional Inclination scales Schein consists of a rating scale. The classification of the sum stems from an adaptation of Likert scale which causes reactions in respondents, which, in turn, to manifest through points with numeric values; in the end, allows the total sum corresponding to each dimension — in this case, the categories of professional inclination or also known as career anchors.

The questionnaire of Schein consists of forty questions. The respondent must score if the question ever apply to him or if always apply on a scale. Altogether were affirmative 40 that the respondent should assign classification of 1 to 6, but due to the pilot study only the first 24 statements were used and in order to facilitate, to the respondents that used two different instruments, the scale was modified to be the same as the inventory of Schwartz of 0 to 5. The scale of assessment used for the questionnaire of Schein in this work was:

The other instrument used waste Schwartz values inventory, you want to give the employees' motivational profile. This instrument includes 57 values; purizumu Seiken were adapted more four characteristic values of Brazilian culture. The importance of the values was assessed using a scale of 0 to 6. The higher the number the more important was the value to the person.

In addition, we used the numbers 1 and 7. The first to assess any opposing values to those of the person and the second to assess a value of supreme importance for the evaluated. In this research, the Likert scale which is recommended for measures of attitudes and perceptions and was used in the original instruments of Schein and Schwartz that have been preserved with only changes in the numbering.

The rating scale used in the inventory values of Schwartz used was:

(0) Opposite to my values; (1) unimportant; (2) unimportant; (3) Important; (4) very important; (5) Of supreme importance

The responses were tabulated and sorted according to the average scores obtained by respondents in the various motivational types, and so determine the motivations or goals that are a priority for this sample. After the questionnaires were answered by the professionals, the results were tabulated table in an Excel spreadsheet. Content analysis of responses obtained through the application of questionnaires, seeking to relate the motivational profile and the inclination of the career professionals, with its conclusions and recommendations. The data from the two questionnaires were analysed using a quantitative analysis, from the application of statistical functions as mean and standard deviation. It is a descriptive research, because it aims to describe the motivational profile and tilting it professional's career.

a) Statistical Results and Analysis of the Research Data

Independent of the working environment, are likely to find people who, although exercising the same function and exposed to similar conditions, behave differently. This is because people have stories of different lives, their own experiences, experiences, values, needs and goals (Lévy-Leboyer, 1994). However, motivational theories show that, despite the characteristics and personal differences, many needs are part of the human universe. Inventory of values was filled by professionals. The values that make up the inventory values are common to different cultures. For each value is presented an explanation about his concept, aiming to clarify, in order to facilitate the choice so that was made with good safety margin. The
statistical results of the data collected from the inventory of values with 61 items referred to the question posed to individuals here searched: “what values are important to me, as guiding principles in my life, and what values are less important?”

Traditional

![Figure 1: Motivational Types of IT Professionals](image)

<table>
<thead>
<tr>
<th>Motivational Type</th>
<th>Question</th>
<th>Q media (Q)</th>
<th>The average Motivational Type</th>
<th>Standard Deviation</th>
<th>Classification</th>
<th>Serves the Interests</th>
</tr>
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</table>

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The professionals add value to self-determination, firstly, also exhibit great concern for the values of collective goals as benevolence, security and compliance. Compliance aims to motivational impulses and control of their own behavior in accordance with social expectations (TAMAYO, 2002, 2007). Examples of compliance values are: obedience, politeness, self-discipline. The motivational goal benevolence is bound to interest and concern for the well-being of people intimate (TAMAYO, 2002, 2007). The goal of the security values is the personal integrity of individuals and groups, as well as identification, the stability of society and of himself (TAMAYO, 2002, 2007). These people who care about social order, family safety, cleaning, is characterized by being a joint interest value (TAMAYO, et al., 2001).

The values in the service of individual interests are opposite to those that serve the collective interests (SCHWARTZ, 1992; TAMAYO; SCHWARTZ, 1993 apud TAMAYO, 2007). Thus, postulate two basic types of relationship among them: compatibility and conflict. On the motivational structure, the five types of values that express individual interests (self-determination, stimulation, hedonism, achievement and social power) occupy a contiguous area that is opposite to that reserved for three sets of values that express primarily collective interests (benevolence, tradition and conformity).

Checking the results it is observed that the professionals demonstrate a situation somewhat conflicting motivational structure. This is because self-determination is an individual characteristic value, as opposed to other values important for professionals, which are benevolence, security and compliance to satisfy interests more directly related to the well-being of the family and of the people in the Group of references.

The individual, collective and mixed interests of it professionals the characterized by greater importance to the values of self-determination, benevolence and describing them with a security profile: curiosity, creativity, freedom to choose their own targets, independence of thought/action and cultivation of self-respect.

The values that make up the motivational type Benevolence are: availability, honesty, loyalty, responsibility, friendship, maturity and work. These
values demonstrate coherence between being and doing that, equality, freedom and justice are all rights, and that these principles are built and preserved to the extent that we experience.

The motivation of the self-transcendence pole where the value is benevolence, focuses on the collective results and well-being of everyone in the organization.

For the Security value were grouped values such as being clean, be healthy, cultivate a sense of belonging, the reciprocity of favors, appreciate the social order, national security and familiar. It is interesting to note that prospects for appreciation on the part of the Organization to job stability, transparency, promotion criteria and medical help.

### Table 2: Medium and classification of Professional Inclinations of it professionals

<table>
<thead>
<tr>
<th>Type</th>
<th>Question</th>
<th>The average Q (Q)</th>
<th>Average inclination</th>
<th>Standard deviation</th>
<th>Classification</th>
</tr>
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<td></td>
<td>17</td>
<td>2.48</td>
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<td>3.08</td>
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<td>18</td>
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<tr>
<td>Autonomy and independence</td>
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<td></td>
<td>19</td>
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<td>Security and stability</td>
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<td>2.74</td>
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<td>7</td>
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<td>20</td>
<td>2.78</td>
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<tr>
<td>Entrepreneurial creativity</td>
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<td>2.39</td>
<td>0.47</td>
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<td>13</td>
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<td></td>
<td>21</td>
<td>2.80</td>
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<tr>
<td>Willingness to Serve</td>
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<td>2.85</td>
<td>2.99</td>
<td>0.44</td>
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<tr>
<td></td>
<td>14</td>
<td>3.48</td>
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<td></td>
<td>22</td>
<td>2.63</td>
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<tr>
<td>Pure Challenge</td>
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<td>3.67</td>
<td>3.53</td>
<td>0.46</td>
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<td>3.88</td>
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<td></td>
<td>08</td>
<td>3.37</td>
<td></td>
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<tr>
<td>Lifestyle</td>
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<td>1</td>
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<td></td>
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<td>3.51</td>
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</tbody>
</table>

*Source: Drawn by the author based on research*

![Figure 2: Inclination of the Career professionals](image-url)
It turns out that the most important career anchor in analyzing the pros is the style of life. This type of person prefers flexibility above all. People-oriented lifestyle seeking one more organizational attitude than a specific program, an attitude that reflects respect for personal and family interests. Who has this slope likes to reconcile personal, family and professional needs.

Secondly for professionals was the anchor of career related challenge. Some people are based on the perception that can conquer anything or anyone. For them, success is impossible or overcome obstacles overcome strong opponents. Living in the world where everything is to compete and win. What matters in employment is that it constantly provides challenges for the individual can prove his ability. Otherwise, these people become bored because they're already motivated and, typically, are loyal to organizations.

In third place was the anchor of career Autonomy Independence. People with a penchant for autonomy and independence do not support rules, methods, work hours and other standards, common to virtually any type of organization. Regardless of your business, these people like to do things your way, at your pace and according to their own standards. These people prefer to follow more independent careers, according to their own standards; they are usually professionals.

The person with a tendency to prefer autonomy jobs and contracted projects that are well-defined goals and temporary to stay on their own the means to achieve them. She prefers payment by the merit of his performance, with payment at the end of your work. She always wants a new position that will give you more freedom than the previous one, namely, promotion means autonomy.

Fourthly, became the anchor of functional technical-related career. What motivates this kind of person is exercising their skills and the satisfaction of knowing that they're experts. The individual with technical and functional incline is dedicated his whole life to specialization and don't value the position of General Manager, although accepted positions of technical managers. In regards to salary, are more oriented towards internal equity, prefer to pay incentives. The type of work for individuals with these characteristics is the challenge. They need to exercise their capabilities, otherwise, your self-esteem will not be satisfied. In addition to continuing education, this group values the formal recognition. For that person to remain at the company, and if it is of great importance for the same, you will need to create for her some kind of restructuring of career plan, coming to meet than above was reviewed.

It was noted, then, through the Inventory of values of Schwartz and professional Inclination questionnaire Schein it professionals surveyed here are individuals self-determined. Have priority for the independence and autonomy of thought, action and choice. Value the lifestyle and are benevolent, showing that this type of person likes to reconcile personal, family and professional needs. To complement, it is also important to mention that the individuals in this sample are also motivated by challenges.

References Références Referencias

14. TAMAYO, Álvaro; Mendes, Anne Magnolia; PEACE, Maria das Graças towers. Organizational values


The Relationship between Entrepreneurship Development and Unemployment Reduction in Pakistan

By Ali Asad, Hafiz Muhammad Ali & Umar Islam
National College of Business Administration & Economic, Pakistan

Abstract - Entrepreneurship is considered as a medium of tackling the problems of unemployment. The purpose of this study is to examine the need in order to reduce unemployment through entrepreneurship in Pakistan. The regression results indicate that 91 percent variations in entrepreneurship development have been explained by the explanatory variables. The unemployment rate has been found to be negatively related to entrepreneurial development. High rate of unemployment has been associated with low level of entrepreneurial development in economy of Pakistan.

GJMBR - A Classification : JEL Code: L26

Strictly as per the compliance and regulations of:
The Relationship between Entrepreneurship Development and Unemployment Reduction in Pakistan

Ali Asad\textsuperscript{a}, Hafiz Muhammad Ali\textsuperscript{a} & Umar Islam\textsuperscript{b}

Abstract—Entrepreneurship is considered as a medium of tackling the problems of unemployment. The purpose of this study is to examine the need in order to reduce unemployment through entrepreneurship in Pakistan. The regression results indicate that 91 percent variations in entrepreneurial development have been explained by the explanatory variables. The unemployment rate has been found to be negatively related to entrepreneurial development. High rate of unemployment has been associated with low level of entrepreneurial development in economy of Pakistan.

I. INTRODUCTION

Entrepreneurship is considered a major source of job creation, innovation and growth of an economy (Audretsch & Thurik, 2000). Entrepreneurship, defined as an “economic system” which has three main components: (1) entrepreneurs, who desires to achieve economic goals for survival (2) the social constitution, and (3) the Government (Lowrey, 2003). According to Wennekers and Thurik (1990) entrepreneurship is the willingness and ability of an individual person, who performs individually or may in teams, within the realm of an existing organization or outside the organization in order to create new economic opportunities, and he introduces his new concepts in the market, also faces uncertainty, makes decisions at the spot, uses and formulates institutions and resources. Entrepreneurship cannot be defined as a profession, entrepreneurship is a behavioral characteristic of individual (Wennekers & Thurik, 1999).

Each economy system has two categories which are active and inactive population. The economically active are those who are able and willing to work, and they engage themselves in the production of physical goods or provide services they are also called employed population while on the other hand inactive population or unemployed are those who are able and willing to work but they are unable to find an appropriate paid employment (Fajana, 2000). Entrepreneurship is considered as a medium of tackling the problems of unemployment because for the unemployed people it acts like an escape from poverty and with the help of it many people are pushed towards business possession (Baptista & Thurik, 2007).

Many scholars have given attention to entrepreneurship and its vigor to prompt employment, thus giving the attention to the significance and the relevance of this sub sector in the development of any given economy. The importance of entrepreneurship cannot be denied due to its influencing role in the development of economies especially among the Developing countries. In order to accentuate the significant role played by entrepreneurship parallel to the growth and the development of a given economy, it is mostly recommended as a “source of employment generation”. It mostly happens due to the potential of entrepreneurial activities which are accompanied with the positive effects on the economy of nation and the quality of life of people (Adejumo, 2001).

The relationship between entrepreneurship and unemployment is based on ambiguity. In one strand of literature it has been found that “unemployment encourages entrepreneurial activities, which is called “refugee effect”. While on the other hand, a very different concept is identified from the other literature strand that is, high rate of entrepreneurship reduces unemployment rate, which is called “Schumpeter effect” (Audretsch & Thurik, 2001). Carree and Thurik, (1998) have examined in their studies that how much does small firms affect industry output and growth. According to them entrepreneurship has positive relationship with economic growth. The study of both Carree and Thurik, (1998) point out those industries have a high rate of small business comparative to same industries in other countries have more output (Carree & Thurik, 1998).

a) Purpose of the Study

The purpose of this study is to examine the need in order to reduce unemployment through entrepreneurship in Pakistan.

II. LITERATURE REVIEW

Entrepreneur is a person who takes risk, identifies problems or loop holes in the market and then tries to convert these problems or loop holes into opportunities. When a person starts his own business it is called entrepreneurship. It is a process in which an individual identifies market opportunities in his own geographical area or country, estimates about his own
Entrepreneurship means not only to provide goods and services for end users but also provides the raw materials for different types of organizations, firms or factories like sugar-canon for sugar mills, cotton for cotton factories etc... (Efe, 2014). The word entrepreneur is developed from the French word “entreprendre” meaning “to undertake”. With the passage of time, the definition of entrepreneurship has been evolved as the world’s economic structure changes (Hassan, 2013).

Entrepreneurship is combination of capacity and attitude that helps the entrepreneur to create or establish the new business with the risk of success or failure (Nkechi, E, & Okechukwu, 2012). In recent years, the relationship between unemployment and entrepreneurship is seeking maximum attention from policy makers in European countries. In this scenario there are two main reasons why do entrepreneurship and small firms play an important role; first by the use of new technology entrepreneurial reduces the importance of mass production (Economies of scales) in different sectors. Secondly due to advancement in innovation and technology, it becomes an opportunity for new and small firms as well as entrepreneurship also becomes more flexible then the large corporations (Baptista & Thurik, 2007).

Entrepreneurship defined as an “economic system” that based upon three components, (1) entrepreneur is a person who wants to achieve his economic survival and progress; (2) social formation, the right of having freedom of business which is granted to employee; and (3) the government should create institutions that must protect the entrepreneurs and also motivate the entrepreneurs to achieve their objectives or economic goals (Lowery, 2003).

a) Entrepreneurship Development

Entrepreneurship education is a great source of economic growth in developing countries. Unfortunately our education system has provoked the development of entrepreneurial qualities because it explicates young people to obey and reshape the facts and to indulge themselves in remuneration after completing their education. While an entrepreneur tends to hinge only his own creativity and judgments, learns through the process of trial and error and promotes his own job environment. While our educational system focuses only on the analytical thinking rather than on innovative ideas (Kourilsky, 1974).

Due to this reason scholars and policy makers are pondering over the basic need of educational system for entrepreneurship. This educational system conceives awareness of alternative career choices and enlarges the vision of individuals by adorning them with cognitive tools and preparing them to perceive and develop entrepreneurial opportunities. Because an educational system plays the key role in order to develop qualities which are considered important for entrepreneurship (Reynolds, Bygrave, Autio, Cox, & Hay, 1990).

An economy growth can be made possible with the help of greater number of entrepreneurs and more effective innovation (Holcombe, 2006). The major role played by an entrepreneur is taking risk, identifying and also changing the market conditions according to customers or consumer’s needs, wants or demands (Knight, 1921). Cantillon (1931) identifies the major role of entrepreneur is to mediate i.e. correspond supply and demand and also to use the scarce resources carefully and efficiently (Cantillon, 1931).

Another researcher, Joseph Schumpeter has defined entrepreneur as a person who introduces or invents new products or combination of products. Entrepreneurship is created when an entrepreneur invents disruptive innovation new product or services in the market or economy (Schumpeter, 1934). According to Schultz Entrepreneur has unique ability to deal disequilibrium of the economy (Schultz, 1975).

b) Main players in Entrepreneurship Development

Now today’s entrepreneurship has been encouraged by different universities, institutions and R & D. During the last decades entrepreneurship also has been encouraged by NGOs and these NGOs are playing an important role of promoting the entrepreneur concept. Media also provides the great awareness and it has been participating to promote the entrepreneur concept (Hang & Van, 2007).

c) Unemployment

The International Labor organization (ILO) defines unemployment as the people in the economy who are capable, willing and seeking for work but they can’t find proper job in the economy and also those people who have left the job intentionally and unintentionally (Hassan, 2013). All economy has been characterized by active and passive population. Active population means those people or persons who are having technical skills or specialized knowledge and also those people who are able and willing to work and to produce products and services for customers or end users (Oladele, Akeke, & Oladunjoye, 2011).

Passive population or unemployment means a situation in which people are capable and willing to do some work for their economic benefits or to fulfill their needs but can’t find a proper job. It’s the macro-level problem and Government should monitor and sort out this problem. When unemployment rate in an economy system increases then poverty ultimately increases due to this reason (Fajana, 2000).

d) Unemployment Reduction

Individual who are unemployed and working low wage rate or under employment will shift to self-
employment or entrepreneurship as best possible alternative to increase their income (Oxenfeldt, 1943). When unemployment increases then the opportunity cost decreases. Due to this reason business startup activities will be increased (a. R. Thurik, Carree, van Stel, & Audretsch, 2008)

Entrepreneurship is facilitating by both local resources and raw material. With the help of entrepreneurship by establishing new enterprises in the economy, they will create suitable opportunities for unemployed people at low capital cost. Entrepreneurship is a flexible business which adapts easily unexpected changes in the economy. In local entrepreneurship, the local individual can start his business easily and he can also manage his own business with minimal resources in developing countries (Hassan, 2013).

All economy has been characterized by active and passive population. Active population means those people or persons who are having technical skills or specialized knowledge and also those people who are able and willing to work and produce product and services for customers or end users (Oladele, Akeke, & Oladunjoye, 2011).

Now these days unemployment is most common issue in Pakistan and it is faced by many individuals in Pakistan. Unemployment means the individuals who are having all the abilities and they are willing to perform tasks or work, but unable to find job. In 2011 the number of unemployed individuals in Pakistan is more than 3 million (Muhammad & Iqbal, 1998).

e) Entrepreneurship and Unemployment

There are two different Psychological theories regarding the relationship between unemployment and entrepreneurship these are called Schumpeter and Refugee effects. Schumpeter effect describes negative relationship between unemployment and entrepreneurship, while Refugee effect explains the positive relationship between unemployment and entrepreneurship (Oladele, Akeke, & Oladunjoye, 2011).

The relationship between entrepreneurship and unemployment is positive as well as it portrays a negative relationship. Positive relationship occurs when rate of unemployment increases the number of new enterprises or rate of entrepreneurship also increases in the economy and generates employment. This relationship is called The Refugee Effect (Oxenfeldt, 1943). When new firms are introduced or established in the society then its needed employees work for them, and this ultimately becomes the reason of reduction in unemployment (Pfeiffer & Reize, 2000). Negative relationship occurs when number of entrepreneurship is increased in the economy the unemployment rate is decreased. This effect is called Schumpeter effect (Garofoli, 1994).

According to Garofoli, (1994) new business startups and unemployment are negatively related, because new enterprises increase employment and reduce unemployment (Garofoli, 1994). Unemployment and entrepreneurship has been wrapped in an ambiguous relationship. It is generally recognized that there is a bi-directional the causal link between changes in the level of entrepreneurship and unemployment, while doing business a "Schumpeter effect" help to reduce unemployment, on the other hand "refugee effect" or "merchant or shopkeeper" has stimulating effect of unemployment entrepreneurship (R. Thurik, 2003). Entrepreneurial opportunities have not only become the part of push effect of unemployment but also they showed the pull effect (Saleh, G. Farjadi, & Mohammadpour, 2011).

III. Methodology

Secondary data has been used for this study. The sources of data are the official documents of Pakistan which has been named as economic survey of Pakistan and Bureau of Statistics Pakistan. It has covered the duration of 10 years from 2003 to 2012. The data which has been collected is analyzed by using multiple regression models of three functional forms initially after which the one which I having the highest R2 and better F ratio, the linear form, has been selected as the primary model.

The analysis is based on the multiple regression model such as linear, double log, semilog, because it is suitable for explaining economic phenomena with many unlike explanatory variables (Onoja & Agumagu, 2009). The multiple regression analysis is a powerful statistical tool that expresses the relationship between two or more variables so that one variable can be predicted from the other. The implicit form of the multiple regression models is given by

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8 + u)$

Where $Y = Industrial Production Index (as proxy for entrepreneurship development)$ which is the dependent variable.

$X_1 = Agricultural Production Index$
$X_2 = Capacity Utilization Index$
$X_3 = Inflation rate$
$X_4 = Unemployment rate$
$X_5 = Exchange rate of Rs./$

The explicit form of the model is:

$Y_t = b_0 + b_1 X_{t1} + b_2 X_{t2} + b_3 X_{t3} + b_4 X_{t4} + b_5 X_{t5} + b_6 X_{t6} + u$

$Y_t$ and $X_t$ refer to the respective dependent and explanatory variables at the given time periods coded and given earlier.
a) Hypothesis of the Study

H1: There is significant relationship between entrepreneurship development and unemployment reduction in Pakistan.

IV. RESULT AND DISCUSSION

The regression result of the analysis shows that ordinary linear model is the best fitted scale for the analysis. It fulfils some of the requirements such as R², F statistics and expected signs. For the entrepreneurial development, the result is explicitly stated as: Industrial production index = 6.126 + 61.25 Agriculture – 3160 Inflation Rate- 31615.63 Unemployment Rate. 96704 Exchange Rate. R² = 0.91

The results indicate that 91 percent variations in entrepreneurship development have been explained by the explanatory variables. The results indicate that the entire explanatory variables particularly agricultural production index is the only significant variable influencing entrepreneurship development. The variable is significant at 5% level. The positive sign indicates that due to the increment in agricultural production index would increase entrepreneurial development.

This finding could have been done due to significant percentage of workers who are engaged in agricultural activities. The rate of inflation has been found having negative and non-significant influence on entrepreneurial development. Similarly unemployment rate has been found to be negatively related to entrepreneurial development.

This finding agrees with works like Solomon et al. (2002). High rate of unemployment has been associated with low level of entrepreneurial development in any economy. This justifies the need entrepreneurial activities should increase in order to reduce high rate of unemployment (Solomon, Duffy, & Tarabishy, 2002).

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