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Editorial

2012 BUDGET

The formal presentation of a nation's budget for approval by the Executive to the Legislature of any national government is an annual legal obligation in the governance of any sovereign state, Ghana not being an exception. It is a cardinal factor in the democratic and good governance equation of every country.

Developed countries take budget debates seriously. Civil Society Organisations (CSOS) and legislature endeavour to provide or come out with constructive criticisms and alternative strategies to ensure sustainable growth and wealth creation in a country without necessarily taking an overtly partisan stand. Granted that these budgets are political statements of the ruling party, the overriding focus is on the needs of the nation. The concept is simply the country first, and for that matter, the interest of the citizenry should be catered for first before party aspirations.

Sadly, in our part of the world, our political party affiliations come first before the interest of our people. We therefore find that in debating national budgets, the political divide and inclinations become even stronger. As a result of these partisan inclinations, budget debates are devoid of intellectual discourse and objectivity. This is abundantly demonstrated in post-budget presentation comments made by our legislators or parliamentarians, whereby the budget is even "labeled" before it is read by the Minister of Finance on the floor of Parliament. This singular act by some parliamentarians robs the nation's interest in debating the budget for the benefit of the nation.

Depending on which side of the political divide people find themselves, the recent 2012 proposed Budget of Ghana has been variously labeled using such names as 'Budget for 2012 Vote', 'Recycled Budget', 'Bye bye Budget', to name but a few.

Serious minded citizens or politicians should put aside their individual political colour and join in the debate without fear or favour. We all need to bear in mind that mother Ghana should be the winner in every debate, decision, and action that we take in 2012.

The 2012 Budget, as presented by the Finance Minister, is on the theme: "Infrastructure Development for Accelerated Growth and Job Creation". It is focused on the key infrastructural projects to be implemented in 2012, consistent with the Ghana Shared Growth and Development Agenda. The budget principally touches on the following key areas: electricity, oil and gas, water and sanitation, railways, roads, ports and harbours, health, education, and agriculture.

The 2012 Budget is a loaded one. It projects an overall growth rate of more than 8% and sets strong macroeconomic targets as follows:

- Real non-oil GDP growth of 7.6%
- Real overall GDP growth of 9.4%
- Average inflation rate of 8.7%
- End-period inflation rate of 8.5%
- Overall budget deficit equivalent to 4.8% of GDP, and
- Gross international reserves of not less than three months' of import cover for goods and services.

Monetary policy is programmed and geared at maintaining single digit inflation of 8.7% while the balance of payments is projected to remain in surplus, reflecting high commodity export prices, oil production and exports, and continuing portfolio capital inflows. It is expected that there would be a further build-up in Gross International Reserves to an average of US $7.5 billion (estimated around 4.5 months of import cover) over the medium term.

The above targets are laudable if the government can do well to achieve them since they set the stage for the overall growth and development of Ghana. In setting out to achieve the above targets, government has spelt out certain important measures in the budget, which deserve level-headed, non-partisan sober reflection by the nation.

RESOURCE MOBILISATION

Government is projecting total oil and non-oil revenue and grants for the 2012 budget year to be at GHS15, 614.3 million. This is an equivalent of 22.4 percent of GDP. It is gratifying to note that the non-oil component is 20.6% and the oil component is 1.3%. This implies that government is not relaxing on enhancing domestic revenue mobilisation from its traditional sources before the advent of oil. The key resource mobilization initiatives espoused in the budget areas include:

- Taxation of professionals and the informal sector so as to double the contribution to domestic revenue from these sectors.

- The VAT registration threshold to be raised from an annual turnover of GHc90, 000 to GHc120, 000. Businesses below the threshold shall pay a presumptive tax of 3 per cent of turnover in addition to the VAT Flat Rate of 3%.

- The government proposes to offer a tax amnesty to taxpayers by way of waiving any interest and penalties due on outstanding tax liabilities to enable them pay up any such outstanding tax liabilities.

- Taxation of mining activities is proposed to be as follows:
  - Corporate tax rates will be increased from 25 per cent to 35 per cent;
  - A windfall tax of 10 per cent will be collected;
  - A uniform capital allowance of 20 per cent for five years.

- Income tax thresholds and brackets are revised as follows:

	Income Band	Rate
First	1,440	Free
Next	720	5%
Next	1,008	10%
Next	25,632	17.5%
Exceeding	28,800	25%

- Government will grant excise duty reduction on a sliding scale to companies using local raw materials as substitutes in the production of excisable goods. This is a good boost for local content participation as well as empowerment of producers of local raw materials.
- There will be an improvement in the monitoring of Free Zones transactions.

EXPENDITURE

The projected expenditure for 2012 is GHS18, 983.2 million which is equivalent to 27.2 percent of GDP. It is thus evident that the expenditure outweighs the revenue streams projected thereby leaving a budget deficit. The projected amount of capital expenditure of GHS5, 697.9 million is clearly insufficient for growth purposes.

OVERALL BUDGET BALANCING AND FINANCING

The overall budget deficit is projected at GHS3, 368.8 million which is equivalent to 4.8 percent of GDP. The government intends to finance this deficit from a combination of domestic and foreign sources. Net domestic financing of the deficit is estimated at GHS1, 665.9 million which is equivalent to 2.4 percent of GDP. The net financing from foreign sources is estimated at GHS1, 572.3 million which is equivalent to 2.3 percent of GDP. The Chinese Development Bank (CDB) loan is estimated to disburse GHS1, 201.8 million in 2012.

The reduction in the net financing from foreign sources, compared to net domestic financing, underscores government's plans to have recourse to domestic resource mobilisation vis-à-vis external support and funding. However, the Chinese Development Bank loan component makes this assertion debatable as it goes to shore up the net foreign financing.

MONETARY SECTOR

In keeping the inflation rate at the target rate of 8.7 per cent in 2012, the Bank of Ghana is to stand ready to adjust its policy rate in support of this target.

FOOD AND AGRICULTURE

The government intends to construct two harbours at Elmina and James Town and 12 landing sites along the coastal towns of the country, spanning the Central Region and the Volta Region. The Government will also expand the Agriculture Subsidy Programme to include liquid fertilizers and improved seeds. The Accra Plains Irrigation Project and an irrigation dam are scheduled to be commenced during the year. A Fisheries College will also be established at Anomabu, in collaboration with the University of Cape Coast. COCOBOD is scheduled to rehabilitate about 1,000 hectares of small-to-medium scale coffee farms. This is a good and laudable step by the government since it shows diversification as well as expansion of the earning capacity of cocoa, the existing primary foreign exchange earner of the nation.

ENERGY

The power generation capacity of the nation is programmed to be expanded by additions to the national grid as well as the completion of the Takoradi 3 Thermal Project. The government intends to extend electricity supply to most communities in the nation. Government also intends to construct tanks for gasoline, diesel, and kerosene storage for the BOST Petroleum Terminal in 2012. There will also be the construction of LPG satellite storage depots at Kumasi, Savelugu and Mami Water.

WATER RESOURCES, WORKS, AND HOUSING

Government budgets to provide 4,000 new boreholes country-wide. The installation of the 60,000m3 sea water desalination plant at Teshie to improve water supply to the area will be undertaken in 2012. The government also plans to facilitate private sector companies to commence the construction and delivery of safe, decent and low income affordable housing units. This will help alleviate the acute housing deficit in the country.

The government also plans to undertake the Takoradi Port Expansion Project and the Multi-Modal Transport Project that links Tema port by rail to the Volta Lake. This will be financed under the Chinese Development Bank Loan, and so will the coastal fishing harbours and landing stages.

TRANSPORT

Government intends to undertake the reconstruction of the western line which is also to be financed under the China Development Bank (CDB) facility. This is a laudable project to link up all sectors of the economy.

ROADS AND HIGHWAYS

The following road projects in the Western Region oil & gas enclave will commence in 2012: Agona-Nkwanta to Dixcove road, Busuta Junction to Busuta Road, Princess Junction to Princess Town road, Sankor Junction to Cape Three Points road, and Mpataba Junction to Half Assini - Jewi Wharf road. This should be a welcome relief to people of the Western Region and the nation as a whole since their fair share of the revenue inflows from oil & gas can be achieved.

EDUCATION

Government intends to provide monetary amounts as intervention packages for capitation grant, free school uniforms, free exercise books and subsidies to basic and senior high schools. This will further enhance the development and growth of the FCUBE policy and ensure that as many as possible of all children of school going age are in school. The infrastructural facilities and installation of equipment in the University of Energy and Natural Resources in Sunyani and the University of Health and Allied Sciences in Ho with a campus in Hohoe are budgeted to commence in 2012.

HEALTH

Government proposes to continue to focus on bridging equity gaps in health delivery; strengthening governance and improving the efficiency and effectiveness of the health system; improve access to maternal, neonatal, child, and adolescent health services, among others.

POLICY INITIATIVES

The following policy initiatives are being contemplated for 2012:

- Public-Private Partnership
- Local content enhancement
- Social intervention programmes
- Youth employment
- Improving the competitiveness of the private sector
- SME development
- Developing the cocoa industry
- Establishment of the centre for Entrepreneurship Employment and Innovation

CONCLUSION

The 2012 Budget indeed contains laudable propositions. These would remain mere projections, hopes, or promises unless the government comes out with some specific details of the approach to attaining the set objectives for scrutiny and appraisal. Seemingly, the 2012 Budget carries good news, but we know that, as a matter of fact, the only thing that is certain about budget estimates is that it will be 'wrong to certain extent'.

To what extent the 2012 Budget will fall below expectations is one of the key issues that confront us Ghanaians today as we debate to enlighten the citizenry. Even though our economy is said to be one of the fastest growing in the world today, our economists, analysts, civil society organisations, various other organizations, and the general public keep lamenting over the following concerns:

- The ever-enlarging public debt
- High unemployment rate
- Increasing public wage bill
- Continuous industrial actions (in areas that critically affect the nation as a whole!), and
- Infrastructure deficit

Again, there is the apprehension in certain quarters that the government is likely to misapply the oil resources in a highly charged electioneering period of 2012.

The serious concern involving the on-going 2012 Budget debate is how best the government can ansure that relevant economic policies would be developed to create more jobs for our youths. How we could diversify the economy to enable agriculture to provide the raw materials that would add value to our manufacturing enterprises is a pressing issue.

Indeed, economic indicators show that, Ghana's economy keeps growing but apparently the economy is experiencing a jobless growth. We therefore need innovative, productive ventures that make us depart from the type of economy that favours 'buying and selling' entrepreneurship. Truly, there is no strong signal or policy initiative or measure to re-orient our economy from one of dependency syndrome to genuine self-reliance that would only come if we empower productive ventures in this country. We are talking about value addition to our raw materials.

It is our hope that true professionals would join this debate without fear, favour, emotions, as well as partisan tendencies. We should show the world that we are indeed mature, and that we understand the principles of democracy that we have been blessed with, especially during the last two decades.

We should bear in mind that democracy is not necessarily about which party is for the people and which one is against the people - the right or wrong political syndrome. Instead, it is about exhibiting co-governance initiative for the betterment of our country.

Let us proceed now as responsible politicians, citizens, professionals, opinion leaders, and CSOS to join the 2012 Budget discussion or debate and come out with solutions that validly support the 'Better Ghana' agenda. A truly "Better Ghana" is in the best interest of and inures to the ultimate benefit of everybody, regardless of parochial political, ethnic, religious, and regional affiliations.

The present budget of Ghana must be construed and debated within the context of the world-wide upheavals and serious austerity measures. Some of these are in nations who are our natural allies or partners in economic development. One would have expected a much more biting austerity measures of our own than is projected in the budget proposal.

PRICING STRATEGIES

Prof. John B. K. Aheto – Vice-President
Kings University College

To many consumers, price means only one thing (the sacrifice to be made to acquire a product or service) and seems a routine decision by the producers of products or services. The reality is however different. Different companies, given the context, would use quite different and more relevant or appropriate pricing methods or strategies. In addition to the above multiplicity of pricing strategies, there are equally multiples of laws of price sensitivity and consumer psychology. Pricing is more of psychological ploys or games that marketers play with unsuspecting consumers or customers than anything else.

Pricing strategies for products or services include the following:

1 Competition-based pricing
2 Cost-plus pricing
3 Creaming or skimming
4 Limit pricing
5 Loss leader
6 Market-oriented pricing
7 Penetration pricing
8 Price discrimination
9 Premium pricing
10 Predatory pricing
11 Contribution margin-based pricing
12 Psychological pricing
13 Dynamic pricing
14 Price leadership
15 Target pricing
16 Absorption pricing
17 High-low pricing
18 Premium Decoy pricing
19 Marginal-cost pricing
20 Value Based pricing
21 Pay what you want pricing
22 Freemium pricing
23 Nine Laws of Price Sensitivity & Consumer Psychology

The following are brief descriptions of the above pricing strategies

1. Competition-based Pricing

This strategy involves setting the price of a product or service based upon prices of similar or **competing** products. Competitive pricing is based on *three* types of competitive product:

- Products have lasting distinctiveness from competitor's product. Here we can assume
    - The product has low price elasticity.
    - The product has low **cross elasticity.**
    - The demand of the product will rise.

- Products have perishable distinctiveness from competitor's product, assuming the product features are medium distinctiveness.
- Products have little distinctiveness from competitor's product. assuming that:
    - The product has high price elasticity.
    - The product has some **cross elasticity.**
    - No expectation that demand of the product will rise.

2. Cost-plus Pricing

Cost-plus pricing is the simplest pricing method. The firm calculates the cost of producing the product and adds on a percentage (profit or mark-up) to that price to give the selling price. This method, although simple, has two flaws; it takes no account of demand and there is no way of determining if potential customers will purchase the product at the calculated price.

This appears in 2 forms, Full Cost Pricing which takes into consideration both variable and fixed costs and adds a % mark-up. The other is Direct or Variable Cost Pricing which is variable costs plus a % mark-up, the latter is only used in periods of high competition as this method usually leads to a loss in the long run.

3. Creaming or Skimming Pricing

Creaming or Skimming Pricing is selling a product at a high price, sacrificing high sales to gain a high profit, therefore 'skimming' the market. It is usually employed to reimburse the cost of investment of the original research into the product: commonly used in electronic markets when a new a new product such as iPad or DVD players are initially introduced into the market at a high price. This strategy is often used to target "early adopters" of a product or service. These early adopters are relatively less price-sensitive because either their need for the product is more than others or they understand the value of the product better than others. In market skimming goods are sold at higher prices (partly due to higher unit fixed manufacturing overheads in the initial period) so that fewer sales are needed to break even.

This strategy is employed only for a limited duration to recover most of investment made to build the product. To gain further market share, a seller must use other pricing tactics such as economy or penetration. This method can come with some setbacks as it could leave the product at a high price to competitors.

4. Limit Pricing

A limit price is the price set by a **monopolist to discourage economic entry into a market.** It is illegal in many economically advanced countries. The limit price is the price that the new entrant would face upon entering the market as long as the incumbent firm did not decrease output. The limit price is often lower than the average cost of production or just low enough to make entering not profitable. The quantity produced by the incumbent monopolist firm to act as a deterrent to entry is usually larger than would be optimal for a monopolist, but might still produce higher economic profits than would be earned under perfect competition.

The problem with limit pricing as a strategic behaviour is that, once the entrant has entered the market, the quantity used as a threat to deter entry is no longer the incumbent firm's best response. This means that for limit

Premium pricing is the practice of keeping the price of a product or service artificially high in order to encourage favourable (qualitative or prestige wise) perceptions among buyers, based solely on the price. The practice is intended to exploit the (not necessarily justifiable) tendency for buyers to assume that expensive items enjoy an exceptional reputation or represent exceptional quality and distinction.

10. Predatory Pricing

This is a strategy of aggressive pricing (very low pricing) intended to drive out competitors from a market. It is illegal in some places or nations.

11. Contribution Margin-based Pricing

Contribution margin-based pricing maximises the profit derived from an individual product, based on the difference between the product's price and variable costs (the product's contribution margin per unit), and on one's assumptions regarding the relationship between the product's price and the number of units that can be sold at that price. The product's total contribution to total firm profit (i.e. to operating income) is maximised when a price is chosen that maximises the following: (contribution margin per unit) X (number of units sold).

12. Psychological Pricing

This a strategy of pricing designed to have a positive psychological impact or perception of lower price on the customers i.e. selling a product at $3.95 or $3.99, rather than $4.00.

13. Dynamic Pricing

This is a flexible pricing mechanism made possible by advances in information technology, and employed mostly by internet-based companies. By responding to market fluctuations or large amounts of data gathered from customers (ranging from where they live to what they buy to how much they have spent on past purchases), dynamic pricing allows online companies to adjust the prices of identical goods to correspond to a customer's willingness to pay. The airline industry is often cited as a dynamic pricing success story. In fact, it employs the technique so artfully that most of the passengers on any given airplane have paid different ticket prices for the same flight.

14. Price Leadership Pricing

An observation made of oligopolistic business behaviour in which one company, usually the dominant competitor among several, leads the way in determining prices, the others soon follow i.e. Daily Graphic leads the way and the other dailies in Ghana merely follow.

15. Target Pricing

This is a pricing method whereby the selling price of a product is calculated to produce a particular rate of return on investment for a specific volume of production. The target pricing method is used most often by public utilities, like electric and gas companies, and companies whose capital investment is high, like automobile manufacturers.

Target pricing is not useful for companies whose capital investment is low because, according to this formula, the selling price will be understated. Also the target pricing method is not keyed to the demand for the product, and if the entire volume is not sold, a company might sustain an overall budgetary loss on the product.

16. Absorption Pricing

This is a method of pricing in which all costs of operation are recovered. The price of the product includes the **variable cost** of each item plus a proportionate amount of the **fixed costs**. This is a form of cost-plus pricing

17. High-low Pricing

High-low Pricing is a method of pricing for an organization where the goods or services offered by the organization are regularly priced higher than competitors, but through promotions, advertisements, and or coupons, lower prices are offered on key items. The lower promotional prices are targeted to bring customers to the organization where the customer is offered the promotional product as well as the regular higher priced product.

18. Premium Decoy Pricing

This is a method of pricing where an organisation artificially sets the price of one product high, in order to boost sales of a lower-priced product.

19. Marginal-Cost Pricing

In business, this represents the practice of setting the price of a product to equal the extra cost of producing an extra unit of the output. By this policy, a producer charges for each unit of product sold only the addition to total cost incurred resulting from materials and direct labour (relevant direct costs of production). Businesses often set prices close to marginal cost during periods of poor or depressed sales. If, for example, an item has a marginal cost of GHc1.00 and a normal selling price is GHc2.00, the firm selling the item might wish to lower the price to GHc1.10 if demand has waned. The business would choose this approach because the incremental profit of GHc0.10 (10 pesewas) from the transaction is better than no sale at all.

20. Value-Based Pricing

This is a strategy of pricing a product based on the customer's perceived value of the product only, and not on any other factor. Pricing based on the demand for a specific product would have a likely change in the market place.

21. "Pay What You Want" Pricing

"Pay what you want" is a pricing system where buyers pay any desired amount for a given commodity, sometimes including zero. In some cases, a minimum (floor) price may be set, and/or a suggested price may be indicated as guidance for the buyer. The buyer can also select an amount higher than the standard price for the commodity. This is normally the case in auctions.

Giving buyers the freedom to pay what they want may seem not to make much sense for a seller, but in some situations, it can be very successful. While most uses of pay what you want have been at the margins of the economy, or for special promotions, there are emerging efforts to expand its utility to broader and more regular use.

22. "Freemium" Pricing

"Freemium pricing" is a business model that works by offering a product or service **free** of charge (typically digital offerings such as software, content, games, web services, gifts, bonus, or other) while charging a **premium** for advanced features, functionality, or related products and services. The word "freemium" is a portmanteau combining the two aspects of the business model: "free" and "premium". It has become a highly popular model, with notable success among mobile phone service operators – free chip and phone, but high usage fee.

Nine Laws of Price Sensitivity and Consumer Psychology

In their book, *The Strategy and Tactics of Pricing*, **Thomas Nagle** and **Reed Holden** outline 9 laws or factors that influence how a consumer perceives a given price and how price-sensitive s/he is likely to be with respect to different purchase decisions:

1. **Reference Price Effect:** Buyer's price sensitivity for a given product increases the higher the product's price relative to perceived alternatives. Perceived alternatives can vary by buyer segment, by occasion, by location, by time or season, and other factors.

2. **Difficult Comparison Effect:** Buyers are less sensitive to the price of a known or a more reputable product when they have difficulty comparing it to potential alternatives.

3. **Switching Costs Effect:** The higher the product-specific investment a buyer must make to switch suppliers, the less price sensitive that buyer is when choosing between alternatives i.e. cost of telephone number portability.

4. **Price-Quality Effect:** Buyers are less sensitive to price the more the higher prices signal higher quality. Products for which this effect is particularly relevant include: image products, exclusive products, and products with minimal cues for quality.
5. **Expenditure Effect:** Buyers are more price sensitive when the expense accounts for a large percentage of buyers' available income or budget.

6. **End-Benefit Effect:** The effect refers to the relationship a given purchase has to a larger overall benefit, and is divided into two parts:

   1. *Derived demand*: The more sensitive buyers are to the price of the end benefit, the more sensitive they will be to the prices of those products that contribute to that benefit.

   2. *Price proportion cost*: The price proportion cost refers to the percent of the total cost of the end benefit accounted for by a given component that helps to produce the end benefit (e.g., think CPU and PCs). The smaller the given components share of the total cost of the end benefit, the less sensitive buyers will be to the component's price.

7. **Shared-cost Effect:** The smaller the portion of the purchase price that buyers must pay for themselves, the less price sensitive they will be.
8. **Fairness Effect:** Buyers are more sensitive to the price of a product when the price is outside the range they perceive as "fair" or "reasonable" given the purchase context.

9. **The Framing Effect:** Buyers are more price sensitive when they perceive the price as a loss rather than a "forgone

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9. **The Framing Effect:** Buyers are more price sensitive when they perceive the price as a loss rather than a "forgone gain", and they have greater price sensitivity when the price is paid separately rather than as part of a bundle.

Pricing is very complicated when we bring in the issue of elasticity – price elasticity and income elasticity – either cross or individual product.

RETHINKING CHANGE

Capt Sam Addaih (Rtd)
Management Development Consultant (GIMPA)

Many companies are trying to make fundamental changes in the way they operate. Many have struggled for years with growing competition by introducing improvements into every function and process. Despite these, the competition continues unabated; the pace of change keeps accelerating; and companies keep putting in top-level energy into the search for ever higher levels of quality, service, and overall business flexibility. Companies work harder, but results improve slowly or not at all.

The problem, according to Richard Pascale and Mark Millemann, is not the programmes, rather, the problem is that the whole burden of change typically rests on very few people in the organisations. In other words, the number of people at every level who make committed, imaginative contributions to organizational change and success is simply too small. More employees need to take a greater interest and more active role in the business. More of them need to care more deeply about success. Companies achieve real success only when every function, office, strategy, goal, and process, and person is able and eager to rise to every challenge. This type and degree of fundamental change, commonly called **revitalization or transformation** is what more companies seek but all too rarely achieved.

Evidence indicates that most executives give this type of change high priority. However, most of their efforts to achieve revitalization have met with frustrations. The reason is partly because large organizations have such a remarkable capacity to resist change of all kinds and partly because the kind of change being sought is so much more radical and uncomfortable than anything required by as shift in strategy or process or corporate structure. For that matter, corporate revitalization normally involves shifts in strategy, process, or structure. However, revitalization also means a permanent rekindling of individual creativity and responsibility; a lasting transformation of the company's internal and external relationships; and an honest-to-God change in human behavior on the job. Revitalization is not incremental change. Its ultimate goal is a discontinuous shift in organizational capability. It is a resocialization so deep-seated that employees feel they are working for a different company. It is a noticeable leap in the company's ability to meet or exceed industry benchmarks.

This kind of sustained organizational renewal would not be easy even if companies have a reliable strategy to achieve results. As it is, most of what has been written about transformational change is either too conceptual and therefore too impractical; too inspirational and therefore too vague; or too company specific and therefore too hard to apply to one's own situation.

Pascale, Milleman, and Goija believe that there are three concrete interventions that will restore companies to vital agility and then keep them in good health. These interventions are (1) **incorporating employees** fully into the process of dealing with business challenges; (2) **leading from a different place** so as to sharpen and maintain employee involvement; and (3) **instilling mental discipline** that will make people behave differently and then help them sustain their new behavior into the future.

Done properly, these three interventions can create a paradigm shift in an organization's culture by significantly altering the way people experience their own power and identity and the way they deal with conflict and learning.

In their study of large organizations that embark on transformation efforts, Pascale and his colleagues found four distinct indicators that are highly predictive of performance. These four indicators can serve mangers in much the same way that vital signs serve physicians in appraising the health of the human bodies they treat; because organizations have similar systems and symptoms.

Their vital signs reveal a great deal about their overall health and adaptability about the strength and vigor of their functioning systems. The four vital signs identified and which give a working definition of culture and tells us most of what we need to know about the operating state of any organisation are:.

- **Power.** Do employees believe they can affect organizational performance? Do they believe they have the power to make things happen?
- **Identity.** Do individuals identify rather narrowly with their professions, working teams, or functional units, or do they identify with the organization as a whole?
- **Conflict.** How do members of the organization handle conflict? Do they sweep problems under the carpet, or do they confront and resolve them?
- **Learning.** How does the organization learn? How does it deal with new ideas or change?

Organizational Drift

As a result of age, size, or competitive intensity, most organizations show a deterioration in vital signs that is inconsistent with their vision and purpose. The members of entrepreneurial organizations have a sense of individual and collective power; they feel they can make a big difference in the pursuit of the goals they all share. Employees identify with the enterprise as a whole; alignment and informal teamwork are the norm. When conflicts occur, team or organisational members handle them directly and almost never allow them to interfere with getting things done. The whole organization is open to learning and mistakes are handled professionally as part of the learning process.

As organizations grow older and larger, however, the vigor of these four vital signs stagnates. Instead of power, people often develop a sense of resignation in response to seemingly insurmountable obstacles or to lack of support from their superiors in the daily routine of getting things done. As organizations become more complicated and demanding, people struggle to carve out private territories where they can exercise responsibility, protect themselves, and keep others at bay. When it comes to their identity, therefore, employees lose their sense of teamwork and alignment with the entire enterprise and begin to seek the safety of their particular profession, association, function, team, or location. People in mature organizations tend to avoid conflict for fear of blame or of having someone take their disagreement personally. As for learning, lager and older organizations tend to be less receptive to new ideas than new ventures. In place of inquiry and experimentation, ideas get studied to death in hopes of flushing out every possible weakness before making a commitment.

Incorporating Employees

The first intervention, is to incorporate or deeply involve employees into the activity of the organization. This is not the same as communicating or motivating or bringing out plans developed at the top. It is resocialisation. It means engaging employees as meaningful contributors (not just as implementers) in the paramount challenges facing the enterprise. It means seeing employees as volunteers who decide each day whether or not to contribute the ounce of discretionary energy that will differentiate the organization from its competitors. Although, incorporation is conceptually similar with other familiar ideas as participative management, employee involvement, and self-managed teams, it is something more. Its distinct ingredients include the use of concrete, pressing business problems to generate a sense of urgency; the cascading involvement of every employee beginning at the very top of the organization and continuing down through the ranks; and the generation of initiatives conceived and staffed by employees across hierarchy and function.

Leading from a Different Place

The second of the three interventions, a new approach to leadership, requires leaders to establish focus and urgency, maintain healthy levels of stress, and not feel compelled to come to the rescue with a lot of answers. These leaders learn to stay the course until what Heifetz and Laurie called "guerilla leaders at lower" levels come forward with initiatives and address the company's shortcomings. In the word of a US Army General, "Once the commander's intent is understood, decisions must be devolved to the lowest possible level to allow the frontline troops to exploit the opportunities that develop.

Instilling Mental Discipline

When incorporation slackens or disappears, stagnation and entropy are almost invariably the results. Incorporation combined with a different type of leadership is able to reverse an organization's drift and restore its cultural vitality. However, if an organization is to change the way its people think and act and interact, and if this resocialization is not to evaporate at the moment financial results improve and people start to believe the worst is over, then people must internalise a set of principles or disciplines that shape their reactions and govern that behavior. Disciplines of this kind might also be called enduring social patterns, but they are more than unconscious habits. Habits are automatic and therefore mechanical. Disciplines are mindful.

Often, the results of most change efforts are not proportionate to the efforts utilized. Sometimes, the effort of some people is so much greater than the outcome for all. The solution is to be all inclusive and focus on all, to shift the attention from incremental change to the strategies that can truly transform the attitudes and behavior of every employee.

MAIN ARTICLES

AN INVESTIGATION OF THE DETERMINANTS OF INWARD FOREIGN DIRECT INVESTMENT FLOW INTO GHANA'S AGRICULTURAL SECTOR[1]

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ABSTRACT

The paper investigated the factors that attracted foreign direct investment (FDI) into the Agricultural sector in Ghana over the period 1970-2009 by estimation of a vector autoregressive model (VAR). Positive and statistically significant elasticities showed that nominal exchange rate, agricultural trade openness, GDP per capita, school enrolment and availability of uncultivated agricultural land were positively related to the dependent variable, FDI into agriculture. Available agricultural land and school enrolment showed the highest elasticities of 41.9 and 2.8 respectively, ahead of economic variables namely; nominal exchange rate, agricultural trade openness and GDP per capita. Policies with the objectives of strengthening school enrolment and access to available uncultivated agricultural land should be pursued. Improvement in international trade in agricultural products, economic growth and the strengthening of the current foreign exchange regime are required if Ghana hopes to attract more FDI into her agricultural sector.

Keywords: Foreign direct investment, agriculture, GDP per capita, trade openness, land availability, school enrolment.

NOTE: The proposal for this study was presented at the CBS Dean's Research Club meeting, Central University College, Accra.

INTRODUCTION

In many parts of Africa, the major challenge facing agriculture is how to increase farm production to meet changing food needs without degrading the natural resource base (Nkamleu, 2004). Agriculture in Ghana is predominantly rural, employs more than 60% of the labour force and is the backbone of the Ghanaian economy. It also contributes significantly to gross domestic product (GDP) and foreign exchange earnings. For example, in 2007, traditional and non-traditional crops contributed 41.1% to Ghana's foreign exchange earnings (ISSER, 2007) whilst the whole sector contributed 31.7% to GDP (World Bank, 2010). The major staple crops produced in Ghana include cereals (mainly rice and maize) and root staples such as yam and cassava. Crop production in Ghana is done for three main reasons: food production for consumption, raw materials for industry and products for export. Animal production at the household level comprises poultry and small ruminants. Commercial production of animals is mainly in poultry. Thus, among the various sectors of the Ghanaian economy, agriculture is expected to lead economic growth. Local and foreign direct investments (FDI) in the agricultural sector are therefore essential.

FDI refers to an investment made to acquire lasting interest in enterprise operating outside of the economy of the investor (UNCTAD, 2002). This suggests that FDI comprise international capital flows in which a firm in one country creates or expands a subsidiary in another. FDI can also be defined as an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy in an enterprise resident in another economy (Rotjanapan, 2005). Clearly, FDI implies that the investor has significant degree, partial or full control or influence over the management of the enterprise resident in the other economy. According to Krugman and Obstfeld (2009), the most distinctive feature of FDI is that it encompasses transfer of resources and acquisition of control.

This study seeks to identify the factors that attract FDI into the Agricultural sector in Ghana.

Poverty is not unknown in Sub-Saharan Africa (SSA) including Ghana. The extent to which FDI can help reduce poverty depends on the sectors that benefit from the flows (Abdulai, 2005). FDI in a manufacturing sector may generate employment for the relatively skilled (in terms of the local market), and would not directly benefit the poor. However, FDI in primary sectors (including Agriculture, but excluding the gas and oil sectors) is more likely to employ unskilled labour and provide benefits to rural areas, which could reduce poverty in those areas. Krugell (2005), Asiedu (2006) and Moreira (2009) have acknowledged a dearth of recent literature on determinants of FDI in Africa. Some more recent cross-country studies on Africa have been conducted by Mutenyo, *et al* (2010), Blancheton & Opara-Opimba (2010) and Luiz & Ruplal (2010) among several studies.

The sparse specific country studies on determinants of FDI in Ghana, notably Tsikata, *et al* (2000), Kyereboah-Cleman & Agyire-Tettey (2008) and Barthel, *et al* (2008) failed to examine sectoral dimensions. The few sectoral country studies by Amos (2003) on mining, and Abdulai (2005) on total FDI, and Dah & Khadijah (2010) on oil did not focus on manufacturing and/or the agricultural sector, which is preferred for efficiency effects (Barthel *et al*, 2008). Neither did these studies investigate the determinants of FDI to these sectors let alone agriculture. Barthel *et al* (2008) recommended country level studies on determinants of efficiency-seeking FDI to sectors such as agriculture and manufacturing, hence the need for this paper.

Identifying the determinants of inward FDI into Agriculture will provide useful information for policy makers. The study will fill the void in the literature on FDI, especially for agriculture.

The rest of the paper is organised into four sections. A review of theoretical and empirical literature is captured in section two. Section three presents the data and models used. The results are presented and discussed in the fourth section. The conclusions and recommendations distilled from the discussions are captured in section five.

THEORETICAL[1] AND EMPIRICAL REVIEW

There are three perspectives underpinning the theories of FDI. Firstly, why a firm will favour FDI as a means of entering a foreign market other (rather) than exporting and licensing; secondly, why firms in the same industry often undertake FDI at the same time, and thirdly, why certain locations are favoured over others as a target for FDI.

The first, which is internationalisation theory (Hymer, 1976), seeks to explain the economic reasons for firms entering into foreign markets, especially internalisation gains and profit opportunities. This perspective points out that company growth opportunities and economic logic should be a guide for extending operations into other countries. In expanding abroad, firms often prefer FDI to licensing as a strategy for entering a foreign market (Hymer, 1976). According to this theory, FDI is preferred to licensing and exporting owing to some drawbacks. In the case of licensing, it may result in a firm giving away valuable technological expertise to a potential foreign investor. Again, licensing does not give a firm the tight control over manufacturing, marketing, and strategy in a foreign country that may be required to maximise its profitability. The fee received for licensing is not commensurate with the loss of control over manufacturing and marketing. Next, is competitive advantage where a firm's product is not a major driver of its competitive advantage rather than management, marketing, and manufacturing capabilities that produce those products. Such capabilities are often not amendable to licensing.

The second perspective explains the patterns of FDI. Firms invest in other countries as a follow-up strategy, that is, following their domestic competitors oversees.

Knickerbocker (1973) first put forward this theory, which is based on Oligopolistic industries. A critical competitive feature of such industries is interdependence of the major players. These firms tend to imitate each other's FDI strategy. Closely linked to the follower strategy in explaining pattern of FDI is the product life cycle hypotheses by Vernon (1966). According to Vernon, firms undertake FDI at particular stages in the life cycle of the product they pioneered. They invest in other advanced countries when local demand in those countries grows large enough to support local production. Production is subsequently shifted to developing countries when product standardisation and market saturation give rise to price competition and cost pressures. Investment in developing countries is seen as the best way to reduce cost.

The third perspective is known as *Dunning's Eclectic paradigm*. This paradigm, popular in the discipline of international economics, can be deduced from the theories of Dunning *et al* (1977) and Dunning (1988) about FDI. The

[1] The sub-section of theoretical review draws heavily on a paper by Djokoto, J. G. (2012).

theory posits that the extent, geography, and industrial composition of foreign production undertaken by Multinational Enterprise (MNE) is determined by the interaction of three sets of interdependent variables which, themselves, comprise the components of three sub-units (Dunning, 2001). The mathematical function is:

$$FDI = f(O, L, I) \quad \ldots\ldots 1$$

Where O is ownership, L is location and I is internalisation.

Ownership, location, and internationalisation are key competitive advantages in this paradigm. The ownership competitive advantage posits that, all things being equal, the greater the competitive advantages of the investing firms, *relative to those of other firms* the more they are likely to be able to engage in or increase their foreign production (Dunning, 2001). The **locational attractions** states that the more the immobile, natural or created endowments needed by the firms to use jointly with their own competitive advantage that favour a presence in a foreign rather than a domestic location, the more firms will choose to supplement or take advantage of their ownership specific advantages by engaging in FDI. For this reason, the MNE's would undertake activities so as to add value to their operations. The final competitive advantage which is **Internalisation** offers a framework for evaluating alternative ways in which firms may organize the creation and exploitation of their core competencies, given the locational attractions of different countries or regions. Such modalities range from buying and selling goods and services in the open market, through a variety of inter-firm non-equity agreements, to the integration of intermediate product markets and an outright purchase of a foreign corporation. In summary, the eclectic paradigm, like its near relative, internalisation theory, asserts that the greater the net benefits of internalising cross-border intermediate product markets, the more likely a firm will prefer to engage in foreign production itself, rather than license the right to do so, for example by a technical service or franchise agreement, to a foreign firm (Dunning, 1993). A number of empirical studies do confirm this theoretical framework and are reviewed in the rest of the section.

Ul-Haque *et al.*, (1997) have noted that domestic factors such as autonomous increases in domestic money demand and increases in the domestic productivity of capital are important in explaining inward FDI flows. Improvement in external creditor relations, adoption of sound fiscal and monetary policies and neighbourhood externalities are acknowledged by Calvo, *et al*, (1993). Among other domestic factors, macroeconomic performance, the investment environment, infrastructure and resources, and the quality of institutions are important in explaining inward FDI flows.

Domestic economic reforms were the main attraction for capital flows to the developing countries in the 1990s (Chuhan, *et al*, 1996). His conclusion is that economic reforms such as privatisation of public enterprise, liberalisation of currency and capital accounts, coupled with a stable macroeconomic environment have improved credit worthiness and expanded investment opportunities. Basu & Srinivasan (2002), citing success stories in Africa, adduced political and macroeconomic stability, well-designed structural reforms, and natural resources as contributors to the increase in

FDI in these countries. Asiedu (2002) observed that trade restriction and poor policy discourage FDI. These account for the small proportion of FDI flows to African countries. Additionally, she noted that African countries tended to be less open than other emerging markets and were perceived as very risky and characterised by poor policy environment relative to other developing countries.

Moriset (2000) showed that GDP growth rate and trade openness can be used to fuel the interest of foreign investors. A detailed review of the policy reforms implemented in Mali and Mozambique further indicates the following strategic actions for their recent success beyond macroeconomic and political stability: opening the economy through trade liberalisation reform; launching an attractive privatisation programme; modernising mining and investment codes; adopting international agreements related to FDI; developing a few priority projects that have multiplier effects on other investment projects and mounting an image building effort with the participation of high profile political figures.

Using a comprehensive dataset of 71 developing countries, about half of which are in the poorest region of Africa –Sub-Saharan Africa (SSA) – over the 1988□97 period, Asiedu (2002) wondered whether the determinants of FDI to developing countries are equally relevant for SSA. Examining three main variables – return on investment, infrastructure development and openness to trade –she concluded that SSA is different. Higher marginal product of capital and better infrastructure do not drive FDI to SSA and, although openness to trade has a positive impact on FDI to SSA, the impact is lower than non□SSA countries. The three policy implications distilled were: SSA countries need to liberalise their trade regimes in such a way that reform will be perceived as being credible by foreign investors; successful policies in other regions cannot be blindly replicated in Africa; African governments have to disseminate information about their countries to dispel the myth about the continent.

Bende-Nabende (2002) also provided empirical evidence for macro locational determinants for FDI to Africa. Using co-integration, with data on 19 SSA countries over the 1970-2000 period, he concluded that the most dominant long-run determinants of FDI in SSA were market growth, a less restrictive export-orientation strategy, the FDI policy liberalisation, real effective exchange rates, market size, and openness of the economy.

Openness to FDI, good infrastructure and institutional quality were important in explaining the performance of SSA FDIs in the world stage (Asiedu, 2004). The experience was characterised as absolute progress but relative decline. Indeed, from 1980-89 to 1990-99, SSA had reformed their institutions, improved their infrastructure and liberalised their FDI regulatory framework. However, compared with other developing regions, the degree of changes in FDI flows in SSA has been meagre. The policy implication that followed was the need to enhance SSA's policy environment in both absolute and relative terms. Asiedu (2006) again investigated FDIs to 22 SSA. She found out that regional blocs such as the Southern African Development Community (SADC) were important in enhancing FDI flows to the region. In addition to expanding the size of the market, regionalism can promote political stability by restricting membership to countries with democratic political systems, as well as providing incentives for member countries to implement good policies through the threat of sanctions or the loss of access to the bloc for errant countries.

For Uganda, Obwona (2002) observed that generous incentive packages such as tax holidays and exemptions were less effective in attracting FDI to Uganda. The more effective factors included macroeconomic and political stability and policy consistency. Infrastructure and institutional bottlenecks acted as deterrents to FDI. However, FDI had a positive impact on GDP growth in Uganda.

A review of the sparse literature of FDI in Ghana will provide some insights into the relationship between the determining factors and FDI. Tsikata, et al (2000) studied the determinants of FDI in Ghana and categorised FDI flows to Ghana since 1983 into three phases namely; the period 1983-88, 1989-92 and 1993-96. The first period witnessed sluggish inflows, averaging about $4 million per annum, and the highest and lowest inflows during the period being $6 million in 1985 and $2 million in 1984 respectively. The second, 1989-92 recorded moderate inflows averaging about $18 million per annum the highest and lowest being $22 million in 1992 and $14.8 million in 1990 respectively. The third, 1993-96 was a period of significant, but oscillatory inflows, which peaked in 1994 at $233 million, but fell by more than 50% the following year to $107million.

Tsikata et al (2000) described a three-way nexus of economic growth, investment and political stability, which had emerged since the coup d'etat of 1972. In that year, a growth rate of 2.3% was recorded, accompanied by a more than 60% drop in FDI (from $30.6 million in 1971 to $11.5 million in 1972). In 1979 when Rawlings took power and was perceived as anti-business, growth fell to as low as -3.2%; there was also an outflow of $2.8 million of FDI. The state of the economy worsened further in his second advent that is from a negative growth rate of 3.5% in 1981 to 6.9% in 1982; however, inflow of FDI remained constant at $16.3 million. The relationship emerged again when a parliamentary democracy replaced the military junta in 1992. The rate of growth of 5.3% in 1991 fell to 3.9% in 1992. This had been previously attributed to deficit financing undertaken in the democratisation process. The FDI flow however, increased from $20 million in 1991 to $22.5 million in 1992.

Frimpong and Oteng-Abayie (2008) however, showed that there was no link between FDI and economic growth. Specifically, they noted that, in Ghana, FDI caused economic growth and not vice versa. This was the case for the period after the Structural Adjustment Programme (SAP). They implied that, efforts at attracting FDI will definitely contribute to economic growth. Specifically for agriculture, Djokoto (2011) noted that there was no growth-FDI linkage over the period 1970-2008.

Barthel et al (2008) identified access to land, property registration, labour market (regulations, availability of skilled labour, labour productivity) and political instability as factors inhibiting FDI flows into Ghana. Following these findings, they recommended the following: speeding up of reforms in land administration and property registration; GIPC liaising with labour unions and the labour commission to make labour unions more business friendly; Government focusing on few subsectors in manufacturing such as agro-processing and food and beverages; and making education more functional.

Dah and Khadijah (2010) established a positive relationship between FDI and locational attraction. Of the two components within the locational attraction, natural resource attracted more FDI than market size in the case of Africa. It was noted that through a case study of Angola, oil attracted FDI because oil was location specific which attracted foreign firms. These investments on the other hand contributed to the productive capacity of the receiving country thus stimulating economic development. They however noted that the availability of natural resources (oil) and its ability to attract foreign investment did not guarantee economic development. The establishment of appropriate institutions, mechanisms and policies would ensure efficient use of oil revenue for sustained economic growth.

From the review, some factors have been noted to influence FDI flows, namely; macroeconomic environment, political stability, natural resources, property rights, land availability, education and human resources, and openness to trade.

The different determinants of FDI into Agriculture in Ghana represent a fundamental focus of this study. From the above, the following variables are examined for their effects on FDI: inflation, exchange rate and GDP per capita constituting macroeconomic environment; democracy, representing political stability; school enrolment representing labour and human resources; trade openness to capture openness, and ratio of uncultivated land to cultivated land to take care of agricultural natural resources.

DATA AND METHODS

Data

Studies in FDI determinants have employed primary data at the firm level (Barthel et al (2008) and secondary time series data (Tsikata et al, 2000; Dah and Khadijah, 2010; and Blancheton & Opara-Opimba, 2010). Owing to data availability, the study adopts aggregate times series secondary data.

Data on agricultural inward FDI (AGFDI) was obtained from Ghana Investment Promotion Centre (GIPC) in US dollars. Nominal exchange rate in US$/GHS was obtained from African Development Indicators (ADI) of the World Bank. This was expected to move in the same direction with AGFDI. Inflation in percentage changes of CPI was obtained from ADI. Inflation erodes the value of money, thus an increase in inflation (INF) is expected to be a disincentive to inward AGFDI flows. GDP per capita (GPC) represents market size. A positive sign was hypothesised with AGFDI. A new trade openness variable according to Squalli & Wilson (2011) was computed as in equation 2. It is the (X+M)/GDP adjusted by the proportion of a country's trade relative to the average world trade. This they christened composite trade share (CTS).

$$CTS_G = \frac{(X+M)_G}{\frac{1}{n}\sum_{i=1}^{n}(X+M)_i} * \frac{(X+M)_G}{GDP_G} \quad \text{..................2}$$

Exports and imports of agricultural products at current US dollars were obtained from FAOSTAT database. Ghana's GDP at current prices and share of agriculture in Ghana's GDP were obtained from ADI. A positive sign was expected *a priori*. Democracy and political governance was represented by polity4 data from the polity project website: . The data contained a negative number (-1). In order to make it possible to take the natural logarithm of the data, 2 was added to convert the negative 1 to positive 1 and all other members of the series increased by 2 (Frenkel, 1976). Land and water are key natural resources in agriculture. Water resources were not captured, as the data available on the AQUASTAT database of FAO did not show any variability. Natural resources were proxied by ratio of uncultivated agricultural land to total agricultural land (UCR). *A priori*, natural resources should exert a positive effect on AGFDI inflows. Data on net primary school enrolment rate from WDI had so many empty cells though it was a better measure of level of education of labour. As such, gross school enrolment was used. School enrolment should exert a positive effect on AGFDI.

Annual data on AGFDI is available from 1995 to 2010. Djokoto (2011) had earlier generated AGFDI data covering 1966 to 2010 by first modelling data for 1966-1994 with AGFDI as explained and Net FDI (obtained from UNCTADSTAT database) as explanatory variable. This model was used to estimate data for 1971-1995. An exponential growth equation was then applied to the 1971 to 2010 data to fill in the spaces for 1966-1970. He used this in a Granger causality test. The use of that data posed problems in this multivariate study. Therefore, the AGFDI was restricted to 1995 t0 2010. All the series were first converted to natural logarithm form after which the frequency was increased to quarterly frequency in Eviews 7.

Method

The model estimated was specified as:

$$LAGFDI_t = \beta_0 + \beta_1 LAGTO_t + \beta_2 LEX_t + \beta_3 LGPC_t + \beta_4 LSE + \beta_5 LUCR_t + \beta_6 LP4_t + \beta_7 LINF + GPC + \vartheta_t \quad \ldots\ldots\ldots 3$$

where:

AGFDI is inward FDI flows to agriculture sector

AGTO is agricultural trade openness

EX is nominal exchange rate

GPC representing size of economy

SE is total school enrollment

P4 is proxy for democratic government

INF is inflation

UCR is availability of natural resources; unclutivated agricultural land

L means natural logarithm

ϑ *is error term*

β_i *are coefficients*

and subscript t is representative of time series

RESULTS AND DISCUSSIONS

Stationarity and Cointegration tests

As required for time series data, the test for unit roots was performed. Using the augmented Dickey-Fuller test (ADF) and Phillips-Perron tests for all variables the results are shown in table 1.

Table 1. Unit Root Test using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP)

Variable	ADF	PP
LUCR	-3.176126 ** I(0)	-3.386120** I(0)
LEX	-3.481607** I(1)	-3.462054** I(1)
LAFDI	3.481607** I(1)	-4.265819*** I(1)
GPC	-3.607994*** I(2)	-9.763062*** I(2)
INF	-3.478854** I(1)	-4.435096*** I(1)
P4	-4.772077*** I(1)	-4.772077*** I(1)
SE	-3.446451** I(2)	-9.727759*** I(2)
AGTOP	-3.303262** I(1)	-3.901846*** I(1)

****-significance at 1% level, **-significance at 5% level. All significance is of MacKinnon (1996) one-sided p-values*

The ADF and PP are in agreement that GPC and SE are integrated of order 2 whilst LEX, LAGFDI, INF and AGTOP are integrated of order 1. Only LUCR is stationary at both levels. The combination of I(0), I(1) and I(2) precludes the use of currently available techniques test for cointegration, that is; Johansen's technique and Auto-Regressive Distributed Lag technique. Despite the importance of the I(2) variables they were reluctantly dropped to pave the way for the use of ARDL to test for cointegration. The computed statistics (F and W) fall below both the 10% and 5% critical (table 2). Thus the null hypothesis that there is no cointegration cannot be rejected.

Table 2. ARDL Test for Cointegration[a]

F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
2.4011	2.8444	4.1593	2.4195	3.5635
W-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
14.4066	17.0665	24.9558	14.5170	21.3807

[a] *complete ARDL model with ECM are shown in table A1.*

VAR models Estimations

Following the non-cointegration of the variables, the unrestricted Vector Autoregressive model (VAR) was estimated (Table A2). A Breusch-Godfrey Serial Correlation LM Test showed existence of serial correlation in the model (Table A3).

The model was subsequently corrected for serial correlation (equation 4) and tested for heteroscedasticity (Table 2). The diagnostics test showed homoscedasticity of the variances.

$$LAGFDI_t = 0.12 + 5.00LUCR_t + 1.06FDI_{t-1} - 0.88LEX_{t-1} + 0.56LINF_{t-1} + 0.84P4_{t-1}$$
$$(0.8647)\ (0.9274)\ (9.8342)^{***}\ (1.5020)\ \ (2.0347)^{**}\ \ (2.3654)^{**}$$
$$+ 0.49AGTOP_{t-1} + 0.52AR(1) \ldots\ldots 4$$
$$(0.7765)\qquad (3.6253)^{***}$$
$$R^2 = 95.9\% \quad Adjusted\ R^2 = 95.3\% \quad F-statistic = 180.95^{***}$$

The figures in parenthesis are the student *t*-statistics of the estimated coefficients with * meaning 10% significance level, ** 5% significance level and *** 1% significance level.

The R squared and adjusted R squared are very high. *F*-statistic is also high with exact significance of 0.00. Following these impressive model statistics, inferences can then be drawn. All the coefficients possessed the *a priori* signs except nominal exchange rate and inflation. In terms of significance, only two of the variables under investigation were statistically significant, namely, inflation and polity4. The natural logarithm estimation means the coefficients are elasticities. Thus a 1% increase in inflation will induce a 0.56% increase in FDI to agriculture in Ghana. This is contrary to the findings of Calvo, *et al* (1993) and Chuhan, *et al*, (1996) and in conformity to the outcome of the study by Ul-Haque *et al.*, (1997). The positive relation between inflation and FDI to agriculture can be attributed to the relatively high inflationary situation in Ghana for some time. The results possibly point out that FDI can cope with some increases in inflation. The threshold of which was not investigated by this paper.

The positive and significant coefficient of the P4 variable (0.84) means that 1 % increase in P4 will induce 0.838% in FDI to agriculture. Ghana retuned to multi-party democracy in 1993 following eighteen years (1981-1992) of non-democratic rule. Since the data covered 1995 to 2010 this result is expected. This result confirms the findings of Tsikata, *et al* (2000), Basu & Srinivasan (2002), Obwona (2002), Asiedu (2006) and Barthel *et al* (2008). Tsikata *et al* (2000) described a three-way nexus among growth democracy and FDI into Ghana over the period 1972 to 1992. The finding of positive elasticity of P4 extends the democracy-FDI connection to cover 1995 to 2010 though Djokoto (2011) did not confirm the growth-FDI connection over the period 1970-2008 for agriculture and Frimpong and Oteng-Abayie (2008) could also not confirm this link for the whole economy of Ghana with data over 1970-2002.

One quarter lag of FDI is positive and statistically significant at 0.00%. The exact elasticity is 1.06. This is the highest significant elasticity among the coefficients. This clearly shows that FDI to agriculture in the previous quarter begets more FDI to agriculture in Ghana in the next quarter. The annual lag situation was earlier established by Djokoto (2011) and Djokoto (2012). This finding implies that successful FDI projects in agriculture attract more FDI projects. This calls for concerted efforts to service foreign investors, such that they can 'good mouth' Ghana's agricultural sector to prospective investors.

Contrary to several studies (Moriset, 2000; Asiedu, 2002; and Bende-Nabende, 2002) but not specifically on agriculture, openness to trade in agriculture is ineffective in attracting FDI into agriculture in Ghana. Essentially, openness to trade is expected to promote inward FDI to agriculture. This is so for a number of reasons. Firstly, trade will signal to foreign investors that the environment supports production and export of such products. Secondly, it provides evidence that investors who intend to export their produce have evidence of possibility of export from Ghana if they invest in production in Ghana. Thirdly, MNEs in agribusiness may be interested in diversifying backward as well as geographically into the country. The fourth reason is that, MNEs initially purchase agricultural produce from Ghana and with time establish facilities that produce those products. However, Djokoto (2012) explains that cocoa beans constitute the greatest single crop contributing to Ghana's agricultural exports. The indigenous dominance and non-plantation farms structure does not encourage foreign investment in production of cocoa beans. Additionally, the price of cocoa beans is regulated, which constitute some disincentive to foreign investors who may not reap the full foreign price of the beans sold. Thus, increased agricultural exports over the period 1995 to 2010 have failed to signal and cause an inward flow of FDI into the sector. Therefore promoting openness of agricultural external trade may be for other reasons but it is incapable of inducing FDI into the sector. The importance of *I* in Dunning's *OLI* is not upheld by the data.

Nominal exchange rate of Ghana cedis over the period of 1995 to 2010 did not have any statistically significant effect on inward FDI to agriculture in Ghana. This is contrary to the findings of Bende-Nabende (2002). It would have been expected that for a fixed dollar sum, the nominal value of the Ghana cedi sum is higher. Assuming no local currency value decline internally, the nominal value of investment of foreign currency denominated in local currency will be higher. Indeed, it implies that there will be more cedis to pay for products and services locally. Secondly, considering that substantial FDI projects in the sector are export-oriented, a decrease in value of the cedi relative to the dollar is no disincentive. The findings however do not conform to this.

Agriculture is a highly land intensive enterprise. However, the statistical insignificance of LUCR in above model shows the contrary. The result disagrees with the role of *L* in theoretical model outline earlier. This result also disagrees with evidence in support of *L* in the studies of Basu & Srinivasan (2002) and Dah & Khadijah (2010). More importantly, this finding should be considered from the perspective that other variables such as democracy and inflation are more important than availability of land.

CONCLUSION AND RECOMMENDATIONS

The current paper sought to identify the factors that attract FDI into the agricultural sector in Ghana. The results show that agricultural trade openness, nominal exchange rate, and uncultivated agricultural land do not attract inward FDI flow to agriculture in Ghana. However, inflation (modest level, may be), democracy and one quarter lag of inward FDI induces inward FDI into agriculture in Ghana in the current quarter. In the light of the above discussions and conclusions, the following recommendations are appropriate:

- Stakeholders in Ghana's democracy must consolidate the gains from the current democratic dispensations and not relent on efforts that will sustain democracy and good governance in Ghana.

- In as much as inflation must be curtailed or stabilised as a macroeconomic goal, some level of inflation is appropriate to attract FDI into agriculture.

- Ghana Investments Promotion Centre and other agencies that service foreign investors must increase their efforts to provide quality service in order to attract more FDI into agriculture.

Efforts at liberalised exchange rate regime that allows market forces to determine the price of currencies, policies such as free compulsory basic education, capitation grant and school feeding programme which are directed towards increasing school enrolment, and streamlining land acquisition procedures and resolution of disputes speedily may be beneficial but ineffective in inducing more FDI into agriculture.

REFERENCES

Abdulai, I. (2005), 'Sectoral Analysis of Foreign Direct Investment In Ghana', Working Paper WP/BOG-05/15.

Abdulai, D.N. (2007), 'Attracting Foreign Direct Investment for Growth and Development in Sub-Saharan Africa: Policy Options and Strategic Alternatives', Africa Development, Volume XXXII, no. 2 pp. 1-23.

Amos, G.J. (2003), Unlocking the Wealth of Nations FDI to the Rescue? A Case Study of the Gold Mining Industry of Ghana, International Business Master Thesis No 2003: 62, Graduate Business School, School of Economics and Commercial Law, Göteborg University ISSN 1403-851X, Printed by Elanders Novum

Asiedu, E. (2002), 'On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different?', World Development, Vol. 30, Issue 1, pp. 107-119.

Asiedu, E. (2004), 'Policy Reform and Foreign Direct Investment in Africa: Absolute Progress but Relative Decline', Development Policy Review, Vol. 22, no. 1 pp. 41-48.

Asiedu, E. (2006), 'Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Stability', World Economy, Vol. 29, no. 1, pp. 63□77.

Barthel, F., Busse, M., and Osei, R. (2008), The Characteristics and Determinants of FDI in Ghana', Hamburg Institute of International Economics (HWWI), Germany. Electronic copy accessed on 2nd March, 2011 from:http://www.hwwi.org/fileadmin/hwwi/Publikationen/Research/Paper/Weltwirtschaft/HWWI_Research_Paper_2-15.pdf .

Basu, A. and Srinivasan, K. (2002), 'Foreign Direct Investment in Africa: Some Case Studies', IMF Working Paper 02/61, IMF, Washington, DC.

Bende□Nabende, A. (2002), Foreign Direct Investment Determinants in Sub□Saharan Africa: A Co□Integration Analysis', Economics Bulletin, Vol. 6, no. 4 pp. 1□19.

Blancheton, B, and Opara-Opimba, L. (2010), 'Foreign Direct Investment in Africa: What are the Key Factors of Attraction aside from Natural Resources?' Working Papers of GREThA, n°2010-14, accessed online at http://ideas.repec.org/p/grt/wpegrt/2010-14.html on 2nd March, 2011.

Bogetic, Y., Bussolo, M., Ye, X., Medvedev, D., Wodon, Q. & Boakye, D. (2007), 'Ghana's growth story: How to accelerate growth and achieve MDGs'. Background paper for Ghana CEM, April.

Calvo, G. A., Leiderman, L. and Reinhart, C.M. (1993), 'Inflows of Capital to Developing

Countries in the 1990s'. The Journal of Economic Perspectives, Vol. 10, no. 2, pp. 123-139.

Chuhan, P., Claessens, S. and Mamingi, N. (1996), International Capital Flows: Do Short-Term Investment and Direct Investment Differ?, The World Bank, Washington, DC

Coulombe, H. and Wodon, Q. (2007), 'Poverty Livelihoods and Access to Basic Services in Ghana", Ghana CEM: Meeting the Challenge of Accelerated and Shared Growth' http://siteresources.worldbank.org/INTGHANA/Resources/CEM_poverty.pdf 20th November 2007.

Dah, F.K. & Khadijah M.S. (2010), The contribution of oil to the economic development of Ghana: the role of foreign direct investments (FDI) and government policies, Master thesis in International Business 15 ECT, Department of Economics and Informatics, University West, Spring term 2010

Djokoto, J. G. (2011), 'Inward Foreign Direct Investment Flows, Growth, and Agriculture in Ghana: A Granger Causal Analysis' International Journal of Economics and Finance. Vol. 3, no. 6, pp. 188-197.

Djokoto, J. G. (2012), 'Does Causal Relationships Exist between External Trade and Foreign Direct Investment Flow to Agriculture in Ghana?' International Journal of Business Management. Vol. 7, no. 2 pp. 179-193.

Dunning, J.H., et al. (1977), 'Trade, location of economic activity and MNE: a search for an eclectic approach'. In: Ohlin, B. (Ed.). The International Allocation of Economic Activity. Macmillan, London, pp. 395–418.

Dunning, J. H. (1988), 'The eclectic paradigm of international production: A restatement and some possible extensions'. Journal of International Business Studies, Vol. 19, no. 1 pp. 1-31.

Dunning, J. H. (1993), Multinational enterprises and the global economy, Addison Wesley Publishers, London.

Dunning, J. H. (2001), 'The eclectic (OLI) paradigm of international production: Past, present and future'. Journal of the Economics of Business, Vol. 8, no. 2, pp. 173-190.

Dupasquier, C. and Osakwe, P. (2006), 'Foreign direct investment in Africa: Performance, challenges, and responsibilities', Journal of Asian Economics, Vol. 17 no. 2, pp. 241 60.

Frenkel, J.A. (1976), 'A monetary approach to the exchange rate: Doctrinal aspects and the empirical evidence'. The Scandinavian Journal of Economics. Vol. 78, no. 2, pp. 200-224. Accessed on 17th June, 2011 at 10:009 GMT from http://www.jstor.org/stable/3439924

Frimpong, J. M., & Oteng-Abayie, E. F. (2008), 'Bivariate causality analysis between FDI inflows and economic growth in Ghana'. International Research Journal of Finance and Economics Issue 15. Accessed at 11:00am on GMT 12 May 2011 at: http://www.eurojournals.com/finance.htm

Hung, T. H. (2010), 'Attracting FDI in agriculture and rural development-status and solutions for improvement'. International Support Group, Policy Advisory Briefing (PAB) No. 4.

Hymer, S. H. (1976), The international operation of national firms: A Study of direct foreign investment, Cambridge, MA: MIT Press.

ISSER (2007), Institute of statistical, social, and economic research (ISSER) 2007, The state of the ghanaian economy, Legon, Accra.

Jansik, C. (2004), 'Food industry fdi - an integrating force between western and eastern european agri-food sectors'. EuroChoices Vol. 3, Issue 1, pp. 12–17.

Jansik, C. (2009), 'Geographical aspects of food industry FDI in the CEE Countries', EuroChoices Vol. 8, Issue 1, pp. 46–51.

Kamaly, A. (2002), Behind the surge in fdi flows to developing countries in the 1990s: an empirical investigation. Unpublished: College Park, Maryland, University of Maryland.

Knickerbocker, F. (1973), Oligopolistic reaction and multinational enterprise, Cambridge, MA: Harvard University Press.

Krugell, W. (2005), 'The determinants of foreign direct investment in africa', in: Gilroy, B., Gries, T. and Naude, W. (eds), multinational enterprises, foreign direct investment and growth in africa: south african perspectives, Physica Verlag GmbH & Co, Berlin.

Krugman, P. and Obstfeld, M. (2009), International economics theory & policy, 8th ed. Pearson Addison Wesley, USA.

Kyereboah-Cleman, A, and Agyire-Tettey, K.F. (2008), 'Effect of exchange-rate volatility on foreign direct investment in Sub-Saharan Africa: The case of Ghana'. The Journal of Risk Finance Vol. 9 no. 1, pp. 52-70. Available

online at
http://www.emeraldinsight.com/1526-5943.htm and accessed on 2nd March, 2011.

Lemi, A. and Asefa. S. (2003), 'Foreign direct investment and uncertainty: empirical evidence from Africa', African Finance Journal, Vol. 5, no. 1 pp. 36□67.

Luiz, J. and Ruplal, M. (2010) "Foreign direct investment and the internationalisation of south african mining companies into africa". Working Paper No. 194 Wits Business School, University of the Witwatersrand accessed online at
http://www.econrsa.org/wp194.html and accessed on 2 March 2011.

Moreira, S. B. (2009), 'The determinants of foreign direct investment. what is the evidence for Africa?'. UNISUL, Tuarão Vol. 2, no. 1, pp. 63-84.

Morisset, J. (2003), 'Does a country need a promotion agency to attract foreign direct investment? a small analytical model applied to 58 countries', World Bank Policy Research Working Paper no. 3028.

Mutenyo, J., Asmah, E., and Kalio, A. (2010), 'Does foreign direct investment crowd-out domestic private investment in sub-saharan africa?' The African Finance Journal, Vol. 12 Part 1, pp. 27-51.

Nkamleu, G. B. (2004), Productivity growth, technical progress and efficiency change in African agriculture, African Development Bank.

O
bwona, M. (2002), Macroeconomic environment and tax policy in Uganda. Report developed for the Taxation, aid and Democracy.

Rotjanapan, A. (2005), Topics in foreign direct investment. The University of Kansas. Doctoral Dissertation submitted to the Department of Economics, University of Kansa, USA. Schoeman, N. J., Robinson, Z. C. and de□Wet, T. J. (2000), 'Foreign direct investment flows and fiscal discipline in south Africa', South Africa Journal of Economic and Management Sciences, Vol. 3, no. 2 pp. 235□44.

Squalli, J. and Wilson, I. K. (2011), 'A new measure of trade openness'. The World Economy. Vol. 34 no. 10, pp. 1745–1770.

Tsikata, G.K., Asante, Y. and Gyasi, E.M. (2000) Determinants of foreign direct investment in ghana. Overseas Development Institute. London (UK).

Ul Haque, N., Mathieson, D. and Sharma, S. (1997), 'Causes of capital inflows and policy responses to them', Finance and Development, Vol. 34, no.1, pp. 3-6

UNCTAD (2002), Foreign Direct Investment Statistics.

Vernon, R. (1966), 'International investment and international trade in the product cycle', Quarterly Journal of Economics, Vol. 80, no. 2, pp. 190-207.

World Bank (2010), African Development Indicators (ADI) database.

Table A1

Autoregressive Distributed Lag Estimates

ARDL(1,0,0,1,1,1) selected based on Schwarz Bayesian Criterion

Dependent variable is FDI			
63 observations used for estimation from 1995Q2 to 2010Q4			
Regressor	Coefficient	Standard Error	T-Ratio
FDI(-1)	1.0064	.050631	19.8764***
CAR	-5.8731	3.2836	-1.7886*
EX	.37677	.29315	1.2853
GPC	-1.0269	.46888	-2.1900**
GPC(-1)	1.3424	.48203	2.7850***
INF	-1.3016	.17072	-7.6240***
INF(-1)	1.1164	.17897	6.2377***
TOP	-2.8068	.43747	-6.4160***
TOP(-1)	3.1110	.41397	7.5150***
C	-1.4839	.70568	-2.1028***

R-Squared	0.97824	R-Bar-Squared	0.97455
S.E. of Regression	0.053754	F-Stat. F(9,53)	264.7587***
Mean of Dependent Variable	4.1670	S.D. of Dependent Variable	0.33693
Residual Sum of Squares	0.15315	Equation Log-likelihood	100.2211
Akaike Info. Criterion	90.2211	Schwarz Bayesian Criterion	79.5055
DW-statistic	0.84392	Durbin's h-statistic	5.0105***

Testing for existence of a level relationship among the variables in the ARDL model

F-statistic	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
2.4011	2.8444	4.1593	2.4195	3.5635
W-statistic	**95% Lower Bound**	**95% Upper Bound**	**90% Lower Bound**	**90% Upper Bound**
14.4066	17.0665	24.9558	14.5170	21.3807

If the statistic lies between the bounds, the test is inconclusive. If it is above the upper bound, the null hypothesis of no level effect is rejected. If it is below the lower bound, the null hypothesis of no level effect can't be rejected. The critical value bounds are computed by stochastic simulations using 20000 replications.

Diagnostic Tests

Test Statistics	LM Version	F Version
A:Serial Correlation	CHSQ(4) = 26.0629***	F(4,49) = 8.6436***
B:Functional Form	CHSQ(1) = 2.9534*	F(1,52) = 2.5576
C:Normality	CHSQ(2) = 14.8477***	Not applicable
D:Heteroscedasticity	CHSQ(1) = 0.98923	F(1,61) = .97311

A:Lagrange multiplier test of residual serial correlation
B:Ramsey's RESET test using the square of the fitted values
C:Based on a test of skewness and kurtosis of residuals
D:Based on the regression of squared residuals on squared fitted values

Error Correction Representation for the Selected ARDL Model ARDL(1,0,0,1,1,1) selected based on Schwarz Bayesian Criterion Dependent variable is dFDI63 observations used for estimation from 1995Q2 to 2010Q4			
Regressor	Coefficient	Standard Error	T-Ratio
dCAR	-5.8731	3.2836	-1.7886*
dEX	.37677	.29315	1.2853
dGPC	-1.0269	.46888	-2.1900**
dINF	-1.3016	.17072	-7.6240**
dTOP	-2.8068	.43747	-6.4160***
ecm(-1)	.0063697	.050631	0.12581
List of additional temporary variables created:			
dFDI = FDI-FDI(-1)			
dCAR = CAR-CAR(-1)			
dEX = EX-EX(-1)			
dGPC = GPC-GPC(-1)			
dINF = INF-INF(-1)			
dTOP = TOP-TOP(-1)			
ecm = FDI -922.0336 CAR + 59.1509 EX + 49.5445 GPC -29.0800 INF + 47.7503			
TOP -232.9646 C			
R-Squared	0.73073	R-Bar-Squared	0.68500
S.E. of Regression	0.053754	F-Stat. F(6,56)	23.9713***
Mean of Dependent Variable	0.013035	S.D. of Dependent Variable	0.095777
Residual Sum of Squares	0.15315	Equation Log-likelihood	100.2211
Akaike Info. Criterion	90.2211	Schwarz Bayesian Criterion	79.5055
DW-statistic	0.84392		
R-Squared and R -Bar-Squared measures refer to the dependent variable dFDI and in cases where the error correction model is highly restricted, these measures could become negative.			

Table A2. Unrestricted VAR model

Dependent Variable: FDI
Method: Least Squares
Sample(adjusted): 1995:2 2010:4
Included observations: 63 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.441901	0.763291	-0.578942	0.5650
CAR	1.717294	3.991696	0.430217	0.6687
FDI(-1)	1.033721	0.067956	15.21159	0.0000
EX(-1)	-0.421293	0.375040	-1.123327	0.2661
INF(-1)	0.364780	0.194465	1.875815	0.0659
P4(-1)	0.716531	0.163168	4.391365	0.0001
TOP(-1)	-0.081492	0.433628	-0.187931	0.8516
R-squared	0.946306	Mean dependent var	4.167028	
Adjusted R-squared	0.940553	S.D. dependent var	0.336932	
S.E. of regression	0.082150	Akaike info criterion	-2.056109	
Sum squared resid	0.377920	Schwarz criterion	-1.817983	
Log likelihood	71.76743	F-statistic	164.4918	
Durbin-Watson stat	1.069639	Prob(F-statistic)	0.000000	

Table A 3. Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	8.028322	Probability	0.000886
Obs R-squared	14.43929	Probability	0.000732

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 01/27/12 Time: 13:14

Variable	Coefficient	Std. Error	t Statistic	Prob.
C	0.608716	0.703887	0.864792	0.3910
CAR	2.580455	3.633087	0.710265	0.4806
FDI(-1)	-0.043355	0.062643	-0.692087	0.4918
EX(-1)	-0.139439	0.337122	-0.413615	0.6808
INF(-1)	0.138823	0.177609	0.781620	0.4379
P4(-1)	-0.035496	0.146446	-0.242385	0.8094
TOP(-1)	-0.043865	0.388852	-0.112806	0.9106
RESID(-1)	0.475809	0.137295	3.465588	0.0010
RESID(2)	0.083768	0.142458	0.588018	0.5590
R-squared	0.229195	Mean dependent var	-5.00E-16	
Adjusted R-squared	0.115002	S.D. dependent var	0.078074	
S.E. of regression	0.073447	Akaike info criterion	-2.252937	
Sum squared resid	0.291302	Schwarz criterion	-1.946775	
Log likelihood	79.96752	F-statistic	2.007080	
Durbin-Watson stat	1.963835	Prob(F-statistic)	0.062949	

Table A4. White Heteroskedasticity Test

White Heteroskedasticity Test:			
F-statistic	1.190996	Probability	0.315923
Obs R-squared	14.00022	Probability	0.300694

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INTERNET AND ONLINE SHOPPING IN AN EMERGING ECONOMY: THE GHANAIAN PERSPECTIVE

Lydia Andoh-Quainoo & Nana Atuobi-Yiadom

Abstract

The purpose of this study was to investigate the uses of the internet and find out whether online shopping has been adopted by Ghanaian consumers. The study also examined the relationship between internet usage and online shopping. Since its discovery, the internet technology has benefited both consumers and business; a number of researches conducted indicate its high patronage by consumers or users. Using a sample of 200 respondents, structured survey questionnaire on the internet usage and online shopping was used to collect empirical data from the Accra Metropolis. The findings suggest that the level of internet knowledge is very high and the internet is used for so many activities including e-mailing, information searching, and chatting. The study also found three types of internet users in Ghana i. e, occasional users, frequent and regular users. Adoption of online shopping on the other hand was found to be very low although respondents indicated the willingness and desire to shop online. This low patronage is attributed to a number of factors. With these findings Businesses migrating to the internet should consider other services that can be offered, and consider actual selling more strategically.

Keywords: online shopping, internet, attitude, behaviour, usage, consumers, marketers, adoption

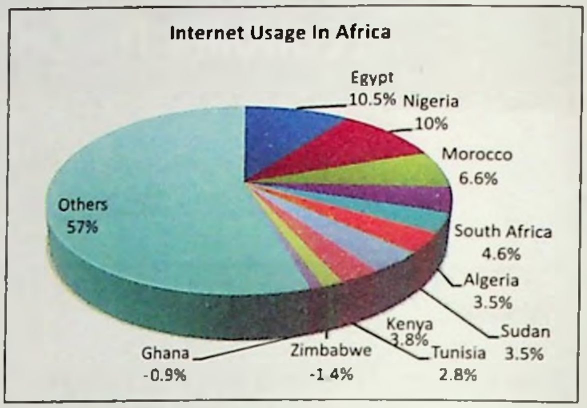
INTRODUCTION

For the past three decades, due to the interplay of a number of factors, the business environment has experienced tremendous changes all over the world, creating a new business environment on the internet (Davis 2000, Rayport & Sviokla, 1995). These factors include globalization, information communication technology, heightened competition, mass customization, empowered customers, disintermediation and deregulation. The resulting new economy has brought about increasing and rapid development of sophisticated communication systems and new media technologies. The new economy, with its new technologies, has resulted in the explosion of the internet and its commercial component, the World Wide Web, which is serving as a business medium (Brennan et al., 2003; Schiffman & Kanuk, 2009). The internet has given businesses the potential to trade in a worldwide market, and enables the customers to buy from the global market. Current studies in the UK indicate that the internet is the third most consumed media apart from television and radio (Chaffey et al., 2009) with North America being in the forefront. However, in Africa, development of the internet in business has been quite recent due to a number of factors such as the lack of access to technology and other factors (Alemna& Ndanu, 2005, Chadwick, 2007, Chaffey et al., 2009). Usage rate in Africa is reported to be about 5.6% (Internet World Statistics, 2009). Other researchers have also observed that there has been a rapid development of the internet from 1996 to date (Adika, 2003). Previous studies across the globe shows a positive relationship between the number of Internet users and online shoppers (Siu and Cheng, 2000; So et al, 2005); however, there is very little information about online shopping in Africa and Ghana despite its use. The internet is used for information search and e- mailing and not for purchasing (Buatsi & Jull, 2006; Adika, 2003). With the apparent limited information about the penetration of Internet shopping in Ghana, it is important to explore online shopping activities in Ghana and identify the type of consumers who shop online as well as the implications it has for businesses. Make information on the above available and come up with findings on Internet use, demographics, online shopping and the willingness to shop online.

Internet usage in Africa

Africa's internet usage can be found among top ten countries and its distribution in percentages is shown in the figure below.

FIGURE 1.0: Internet Usage Statistics in Africa as at year 2010.



(Adapted from Internet World statistics, 2009).

The African sub-regional distribution of internet growth also depicts that North and South Africa are more advanced than West, East and Central Africa. In West Africa, Ghana, Nigeria and Senegal are leading in internet usage, the rest in the middle and Sierra Leone is the least developed (Jensen, 2000; 2001).

Internet Usage in Ghana

Ghana has witnessed rapid technological changes and consumers in Ghana have recognized the fact that the internet is becoming part of life and business. It has been observed that "Information Technology (IT) has helped to force the pace of change in industry, commerce, government in Ghana (ISSERReport,2007).

The Information Communication Technology (ICT) sub-sector in Ghana has been growing steadily and a number of institutions and individuals are increasingly using the internet for business and other activities; for instance most banks use the internet and extranet to deal with their external customers and intranet for internal customers (ISSER Report, 2007). According to research conducted by Quaynor (2008), Ghana became one of the few African countries to be connected to the internet in August 1995 (Alemna & Ndanu, 2005 and by 2005 the internet ball had already started rolling. From then, internet services usage grew from zero (0%) subscribers in 1995 to 1, 200 subscribers in (1997) and the figure keeps growing astronomically. Network Computer Systems (NCS) became the pioneer in the provision of internet connectivity in Africa, and Ghana as an Internet Service Provider (Alemna & Ndanu, 2005; Quaynor, 2008).

The current internet usage rate as reported by Internet World Statistics (2009) indicates that as at December 2008, the internet usage rate in Ghana was 3.8% out of a population of over 23 million. However, the usage rate of the internet and the general attitudes of the populace are critical factors in predicting the success of e-marketing and opportunities it presents. Internet access and usage are used to predict demand as well as the attitudes towards usage. In spite of low usage in Africa, general attitudes towards internet usage could be favorable (Chaffey et al., 2005). Even where there is advanced development in the internet, studies indicate that advancement is confined to the capital cities in Africa (Jensen, 2000).

Internet users in Ghana are faced with the challenge of a block on credit card transactions, which was imposed by the U.S Federal Bureau of Investigations in 1995, as a result of fraudulent activities by some users of the internet. This has tarnished the image of Ghanaian online shoppers to a large extent. Even though there are a few Ghanaians who posses credit cards, those who are able to shop with them are few.

This notwithstanding, online shopping sites in Ghana are still on the increase and some organizations which have websites, (for example, Bay Ghana.com and goggle.com.gh) are doing good business. (Olatunji-Osei, 2010). Sales arrangements that are completed are arranged for offline delivery

The Role of Internet in Marketing

Historically, internet has existed since the 1960's when a number of computers were connected in the US for military and research purposes. In recent times however the internet has become very useful for all business purposes due to the World Wide Web. The World Wide Web became commercially the most important component of the internet after 1993 when Tim Berners-Lee, a British scientist working at CERN in Switzerland (1989) developed the original concept. This changed the internet from difficult to use medium to an easy to use medium for finding information for businesses and consumers. The development of electronic retailing started in the 1990s but not all companies were optimistic about it. While some saw the retail potential in it others also saw it as an insecure trading environment. Those who saw it as a dangerous environment and limited business potential were referred to as inactive companies but the second group saw the business potential and opportunity to access new global markets. However, currently more companies are adopting the internet for so many business activities including; branding, communication, sales, customer service and relationship management, for customers use the internet for finding product information, prices and comparative analysis, research, general browsing and surfing for a wide range of activities, products and services. Some use it for education, community and chats, for games and entertainment, etc.

THEORIES OF INTERNET AND ONLINE SHOPPING ADOPTION

Several theories have been used to examine attitudes and adoption of the internet (including the Technology Acceptance Model, the theory of Reasoned Action (TRA) and the Rogers Diffusion of Innovation Model). All the three models mentioned above have been widely adopted in online shopping research (Bobbitt and Babholkar, 2001; McKechnie et al., 2006)', the focus of these studies commonly includes capturing the characteristics of online shopping adopters or identifying consumers by capturing online shopping intentions (SI).

Online shopping intention (SI), as conceptualized within the Technology Acceptance Model outlined by Davis (1989), is said to be: usually affected by the Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) (Davis, 1989). PEOU means the degree to which one perceives a technology as free from effort, and PU means the degree to which one perceives the technology to be improving. Previous studies have confirmed the importance of PEOU and PU in developing attitudes towards online shopping intentions'.A number of other factors have also been associated with SI including habits (Gefen, 2003, Doll & Deng, 1998), consumer traits and characteristics, situational factors, product characteristics, previous online shopping experiences and trust.

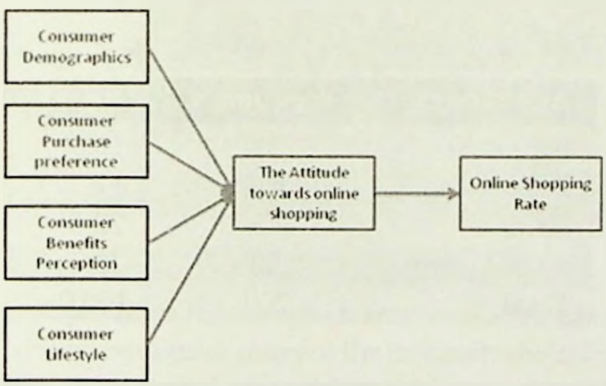
According to the basic conceptual model, the Theory of Reasoned Action (TRA), propounded by Fishbein and Ajzen (1975) and Ajzen and Fishbein (1980) once an attitude is held by a consumer, it is more likely that a particular behavioural response will be exhibited, thus a favourable attitude towards Internet shopping would result in online shopping adoption. There seems to be a positive relationship between online shopping attitudes and online shopping intentions (Wu, 2003).

According to the Rogers' Innovation Diffusion Theory (Rogers, 1995), Innovation is defined as "an idea, practice or object that is perceived as new by an individual or another unit of adoption", while diffusion is "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995, p.10). By these definitions, innovation diffusion is achieved by how a social system accepts and begins to use (adopt) an idea or a thing. Rogers (1983) identified five categories of consumer groups and their adoption style. These are: innovators who are eager to try new products and are mostly young and adventurous, early adopters who carefully select new products based on benefits, early majority who adopt when it has been proven, late majority who are risk averse and laggards who resist innovation.

In applying the Rogers' Diffusion of Innovation Theory, focus has been on the identification of variables which affect shopping behaviours rather than either the underlying behavioural shopping intentions or the attitude towards online shopping derived from TRA. A number of variables have been found to be linked to the early adoption of technologies which include wealth, age, and perceived risk (Leung, 1998;Vijayasarathy 2002; Park and Jun, 2003); brand familiarity (Park and Stoel, 2005); brand image and warranty (Tan, 1999); convenience, and information accessibility (Kaufman-Scarborough and Lindquist, 2002; Sorce et al, 2005).

Various studies have applied these theories in assessing online shopping intentions and consumer characteristics. For example, in a study conducted in Taiwan Shwu-Ing Wu (2003), it was observed that attitudes toward online shopping are significantly different based on various consumer behaviour factors such as demographic variables, lifestyle and preference. These are also explained by Schiffman & Kanuk (2007) as depicted by the figure below

FIGURE 1.1: Consumer Characteristics and Online Shopping



Adapted from Schiffman & Kanuk, (2007)

Jarvenpaa and Todd (1997) proposed a model of attitudes and shopping intentions towards internet shopping in general. According to the model, several indicators belonging to four major categories determine attitudes and intentions for online shopping; these are the value of the product, the shopping experience, the quality of service offered by the website and the risk perceptions of internet retail shopping. Jarvenpaa et al. (2000) also concluded that the attitude and the risk perception affected the consumer's intention to buy from the online shop. It appears that the attitude or intention to shop online can be influenced by quite a number of influential factors relating to the internet, especially risk and demographic factors. This has also been confirmed by Bhimalingam & Shrivast, (2008).

While some studies found disparity between demographic factors and intention and actual internet behaviour others found otherwise. Some found out that shoppers who use the internet frequently are mostly young, well educated and high income consumers (Siu & Cheng, 2000; Swimyard & Smith, 2003: Davies, 2005; Choi & Park, 2006). But Ha & Stoel (2004) could not find any significant differences between males and females on internet shopping behaviour. Online shoppers and potential ones are mostly young male professionals within the ages of 20-29. Sorce et al. (2005), on the other hand, found that young people make less purchases online compared to older users of the internet.

Studies on internet adoption in Ghana indicate that Ghanaians of certain communities such the university staff, particularly teaching staff, have embraced the internet very well and use it for emailing and information gathering or research (Diaba, 2000; Alemna& Ndanu, 2005).

Methodology

The target population was users of the internet in Accra. About 200 -220 participants were solicited for participation in the survey at the various access points. Participants were from age group of 18 to 50, and were engaged in all kinds of jobs: from the unemployed, unskilled labour to high ranking business executives. Participants were randomly selected from access points mainly internet cafes, offices and homes from all the four main geographic areas of Accra namely, North, South, East and West of Accra.

Data Collection Tools

One major survey instrument was employed for the data collection. The instrument had four major sections;

- demographic data
- Internet usage and
- Online shopping.

The questionnaire was pre-tested and refined before being used for the data collection. Some questions demanded yes and no responses and others required agreement or disagreement in a Likert scale form.

Data Collection Procedure

Participants who were randomly selected from various internet access points (including homes, internet cafes, offices and other points of access), were interviewed. Respondents who completed the questionnaire on their own were supervised by research assistants. The interview or response to questionnaire only took place after obtaining the consent of the respondent.

Data Analysis

The Statistical Package for Social Sciences (SPSS) software was used for the data analysis. Only fully completed questionnaires were used for the analysis. Various descriptive statistics including frequency tables, percentages, and correlation were used for the analysis.

RESULTS AND DISCUSSION

As can be observed from table 1 below, the distribution of participation by age was skewed towards the youth who were in their early twenties probably because of their sensitivity towards ICT related issues. This seems to confirm previous studies by (Rogers, 1995; Swinyard & Smith, 2003; Choi & Park, 2006).

It is evident that individuals who where between 20 and 39 years expressed higher interest and patronage in internet related issues compared to those between 10 and 19 years and 40 years and above. Respondents within 20 - 29 years who participated were about 52 % of the total response rate. Response rate of individuals whose age range fell within 30 to 39 years of age were about 22.5 % and only about 10% of individuals of 40 years and above responded to the questionnaire as illustrated by Table 1 below

Table 1: Age range of respondents

Age ranges	Frequency	Percent
Below 20	31	15.5
20-29	104	52.0
30-39	45	22.5
40 and above	20	10.0
Total	200	100.0

On the issue of gender, the picture was not different from that of the female respondents who also registered 85% regular usage rate. This clearly shows that females equally use the internet just like their male counterparts. This appears to be different from the findings of Sorce et al., (2005); Davis, (2005) and others who found male Internet users to be more compared to females. In Ghana, it appears the number of females does not differ from that of males. This study however, confirms the findings of Ha & Stoel (2007) that there are no significant differences between male female online shopping ratio as depicted by table 2 below.

Table 2: Gender and Internet Usage

Internet use Occurrence \ Gender	Male	Female	Total
Irregular Users	15	15	30
Regular Users	85	85	170
Total	100	100	200

It is also interesting to note how the use of internet has strongly been embraced at different levels of education in Ghana with holders of SHS being the highest, 24 % (refer toTable 3). This seems to support other findings across the globe (Swineyard and Smith, 2003: Sorce et al., 2005: Choi & Park, 2006). This also reveals that most regular users of the internet have some form of education. It was observed from table 3 that less than 10% had completed JHS. The remaining 85% who participated were SSS leavers, HND holders, graduate and post graduate certificate holders (Table 3).

Table 3: Education Level and Usage Rate

Education Internet use	JHS	SSS/ SHS	HND/ Dip	1st Degree	Post graduate	Other	Total
Irregular Users	6	15	8	0	0	1	30
Regular Users	5	48	41	59	9	8	170
Total	11	63	49	59	9	9	200
Percentage	5.5	31.5	24.5	29.5	4.5	4.5	100

To help affirm the research objectives further, the researcher probed to unveil the specific age group within the sample frame who uses the internet quite often. Out of the 170 respondents who were regular users of the internet, about 55% fell within the 20-29 age group. The remaining 45% constituted respondents whose ages fell within 30-39 being second with about 22%. Followed by students whose ages fell well below 20 years. The younger age groups especially 20-29 years showed immense interest in the use of the internet with high regular usage rate contribution as indicated in Table 4. This also confirms other findings across the globe (Rogers, 1995; Swineyard and Smith, 2003: Sorce et al., 2005: Choi & Park, 2006).

Table 4: Internet usage/ Age

Age Internet use	Below 20	20-29	30-39	40 and above	Total	%
Irregular Users	7	10	8	5	30	15
Regular Users	24	94	37	15	170	85
Total	31	104	45	20	200	100

ONLINE SHOPPING

To understand how respondents use the internet in their purchasing activities, respondents were asked to indicate whether they use the internet when shopping. 69% percent of respondents had never shopped online with only 39 percent certain about their online shopping activities as indicated in Table 5 below. It may be possible that they may use the internet for other activities rather than shopping as described by Swinyard & Smith (2003); Choi & Park, 2006).

Table 5: Ever shopped online

Shopping Online Age Ranges	NO	Percentage	YES	Percentage	Total
10-19	24	17	6	10	30
20-29	73	53	32	51	105
30-39	27	20	18	29	45
40 and above	14	10	6	10	20
Total	138 (69%)	100	62 (39%)	100	200

Table 6: Plans to shop online if given the opportunity

Responses	Percentage
NO	20
YES	80
Total	100

The relationship between Internet usage and online shopping was also found to be a little high; as indicated in Table 7 below respondents who use the internet in general are also more willing or intend to shop online.

Respondents who had no online shopping experience were further asked to indicate their intentions to shop online if the opportunity avail itself. Interestingly, 80 percent (refer Table 6) of the respondents wish to have online shopping experience one day. This implies that the potential for online shopping is predictably high because willingness or intention for online shopping is high. According to Hynes and Suewin (2009), although intention or willingness to shop can be high actual shopping may not be as high. This can only be measured when actual online shopping becomes a reality.

Table 7: Relationship between internet use and willingness to shop online

Score	Correlation*	Use	Intention/willingness to shop
Internet usage	Pearson correlation (two tailed)	1.00	0.63 0.00
Intention to shop	Pearson correlation) two tail	0.63 0.00	1.00

*Correlation is significant at the $p < 0.01$ level (2-tailed)

The researcher probed further into factors leading to the low patronage of online shopping in Ghana, and the data below in Table 8 shows the responses. Most respondents attributed the low patronage of online shopping to Internet fraud, followed by lack of facilities and low education.

Table 8: FACTORS CAUSING LOW ONLINE SHOPPING

Low online shopping	No	YES	Total
Lack of facilities	36	164	200
Internet Fraud	30	170	200
Lack of access	44	156	200
Low education	40	160	200
Lack of shopping Activities.	49	107	200

When respondents were asked what other services they use the internet for they gave various responses, the table below depicts the responses for other uses of the internet. Amongst other uses was internet banking, information, educational purposes, job seeking, emailing, and other activities.

Table 9: PURPOSE FOR INTERNET USAGE

Purpose of Internet Usage	NO	YES	Total
For service	106	94	200
Internet Banking	90	110	200
For Information	10	190	200
For e-mailing	14	186	200
Educational Purposes	25	175	200
Entertainment	36	164	200
Job seeking	59	151	200
Makingfriends	36	164	200
Internet Fraud	129	71	200

CONCLUSION

The main objectives of the study were;

1. To provide current evidence regarding the use of the internet and online shopping in Ghana.
2. To explore the interface or relationship between internet use and online shopping.

The findings provide interesting insights similar to previous studies. First, age and education were found to be significant indicators of Internet use and intention or willingness to purchase from online sources. The study shows that most users are educated and young people. This finding adds to the body of available literature on these demographics and internet use (Rogers, 1995; Swineyard & Smith, 2003: Sorce et al., 2005: Choi & Park, 2006). Two, this study also collected data on whether respondents have ever shopped online before and this showed a different picture; online shopping behavior showed many respondents are not shopping online but are willing to shop online given the opportunity. Since the adoption rate of online shopping is still very low in Ghana it is assumed that these people are innovators or early adopters, that is, those who are willing to try new things or technologies as depicted by Rogers (1995) in his theory of Diffusion of Innovation. Three, previous assumptions that, most Internet shoppers are under the age of 36 is confirmed. It is believed that, the potential of these consumers' is huge, in terms Education and financial status and online shopping adopters will increase with time. This can be explored by e - marketers.

IMPLICATIONS OF THE STUDY

The results of this study have several implications for business and e-marketing. The major implication is that as internet use develops, consumers will look forward to having online interactions with suppliers, as such organizations that are not yet online should be planning to get on as soon as possible. Also, since online shopping is low, businesses migrating to the internet should consider other services that can be offered such as internet promotion and customer service; they should consider online sales more strategically to get the most out of the internet.

Finally, online business is driven by good ICT infrastructure hence, businesses in Ghana should put pressure on government to improve on ICT infrastructure and control internet fraud so that Internet usage and online shopping can improve. This will enable e-marketers and shoppers in Ghana to enjoy the benefits and the opportunities of the internet and online business in general.

FUTURE RESEARCH

It is recommended that future studies should consider major areas of Ghana to get the whole national view. Also, shopping and internet use intention or attitudes were not explored and it will be better if these could be investigated. Another emerging channel is mobile shopping and this could be explored further. Furthermore, organizations adoption of the internet technology could be explored to find out about how firms are adopting the internet and its relationship with consumers adoption of the internet.

LIMITATIONS OF THE STUDY

A major limitation of its study is the relatively small sample size based in the capital city, Accra where education and infrastructure for technology is comparatively high, thus making accessibility to the internet relatively high. This however, may not reflect the actual situation in the entire country. As a result, generalization for the whole country from this research may not be appropriate.

REFERENCES

Adika, G. (2003). Internet Use among Faculty Members in University of Ghana. Library Review, vol 52, no 1. Retrieved form www. Emerald. Insight .com on 30th Janaury, 2010.

Alemna, A. & Adanu, T. (2005). Internet Use at Balm Library. Library High Tech News

Allred,C.R.,Smith, S.M. &Swinyard, W.R. (2006). E- Shopping Lovers and Conservative: A Market Segmentation Analysis, *International Journal of Retail & Distribution Management, Vol. 34 No 4/5, pp308-333.*

Bhimalingam R. & Shrivastava A. (2008). Attitude towards Internet and Online Shopping in New Zealand. *The Icfai University Journal of Consumer Behavior, Vol. 3, No. 4, pp. 34-68, December 2008*

Blackwell, D. R., Miniard, P.W. & Engel, F.J (2001). Consumer Behavior. 9th Ed., Southwestern. Thomson Learning.

Brennan, R., Baines, P. & Garneau, P. (2003). Contemporary strategic Marketing. Palgrave Macmillan. NY.

Buatsi, S. & Jull, S.O (2002). Internet and Exporting: The Case of Ghana. Journal of Business and Industrial Marketing. Vol.17, no 6

Chaffey, D., Chadwick, E.F., Johnson, K., Mayer, R. (2009). Internet Marketing: Strategy, implementation & Practice. FT Prentice Hall UK.

Chatterjee, C. (2002). E-Commerce Law for Business Managers. Financial World Publishing, UK.

Davis, J. (2005). A guide to web marketing. Kogan page. UK

Dixon, T & Marston, A. (2005). Taking the Shopping Centre Online: New Models in E-Commerce, Property Management, Vol. 23, No 2, pp 97-109

Fenech, T. & O'Cass, A. (2001). Internet users Adoption of Web Retailing: User and Product Dimensions, Journal of Product and Brand Management, Vol.10 No 6, P 361-381.

Ha, Y. & Stoel, L. (2004). Internet Apparel Shopping Behaviours: the influence of innovativeness. International Journal of Retail and Distribution.vol. 32 No 8, pp 377-385.

Hynes, N. & Suewin, P. (2007). *Online Shopping within Hong Kong- an empirical study.* Retrieved from www.emeraldinsight.com on 29 Janauary, 2010 at 6pm GMT.

Jensen, M. (2000). The African Internet-Status Report.

Jensen, M. (2001). The African Internet-Status Report. Retrieved from www3.wn.apc.org/Africa/afstat.html, assessed 20 th December, 2009.

Kim, J.O., Forsythe, S., Gu Q., & Moon, S. J (2002). Cross-Cultural consumer values, needs and purchase behavior. *Journal of Consumer Marketing. Vol.19 (6):481-502*

Kim, S., Williams, R., & Lee Yulee (2003). Attitudes towards Online Shopping and Retail Website Quality: A comparison of U.S and Korean Consumers. *Journal of International Consumer Marketing. Vol 16(1), pp 89-111.*

Kotler, P., Armstrong G., Saunders, J., & Wong V. (2002). Principles of Marketing. 3rd Ed., Prentice Hall. Europe

Kotler, P. & Armstrong G. (2008). Principles of Marketing. 12th Ed., Pearson Prentice Hall. New Jersey USA.

Kotler, P. & Keller, K. L. (2009). Marketing Management. 3rd Ed., Prentice Hall.

Myers, D. G. (2004). Exploring Social Psychology. 3rd ed., McGraw Hill, USA.

Neuman, L.W. (2007). Basics of Social Research: Qualitative and Quantitative Approaches. 2 ed.,Pearson Internation Edition. NY

Olatunji-Osei, O. (2010). Internet: Getting a Home Connection in Ghana. Retrieved from http//www.Ezine Articles.com on 25/07/2010 at 8. Pm GMT.

Rayport, J & Sviokla J. (1995).exploiting the Virtual Value-Chain, *Harvard Business Review,* November-Decembe,r 75-87.

Rogers, E.M. *Diffusion of Innovation,* (1995) (4th ed.), the Free Press, New York.

Salaün, Y.& Flores K. (2002). Information quality: Meeting needs of consumer.

Retrieved (1[st] September, 2009). Time 16:45 GMT from www.sciencedirect.com/science

Schiffman, L.G & Kanuk, L.L (2007). Consumer Behavior. 9[th] Ed., Pearson Prentice Hall, New Jersey, USA.

Siu, N.Y.M. & Cheng, M.M.S. (2000). A study of the expected adoption of Online Shopping- the case of Hong Kong- *Unpublished*. Businesss Research Centre, Hong Kong Baptist University Hong Kong

Smith, P. R (2005). Introduction to E-marketing. Kogan Page, UK.

Swinyard, W.R.& Smith S. M. (2003). Why people do not shop online. A lifestyle study of the internet consumer. Journal of Psychology and Marketing. 20(7),567-597.

Teo T. S. H. (2002). Attitudes toward online shopping and the Internet. Journal of Behaviour and Information Technology, Volume 21, Number 4, pp. 259-271 Taylor and Francis Ltd.

Times 100 Edition (2009). Customer needs. Retrieved (20[th] August, 2009). Time: 14:20 from the times100.co.uk.

Vijayasarathy, L.R. (2002). Product Characteristics and Internet Shopping Intention. *Internet Research: Electronic Networking Application and Policy, Vol 12 No 5,pp441-426*

Wu, S.I. (2003). The Relationship between Consumer characteristics and Attitudes toward Online Shopping. *Marketing Intelligence and Planning, Vol.21 No 1, pp 37-44.*

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THE FINANCIAL MECHANISM FOR THE POOR: EVIDENCE FOR GHANA

Paul A. Onyina

Abstract

Traditionally, it is assumed without empirical evidence, that poor people are too poor to save hence have been ignored by formal financial institutions. However, there exists a body of evidence showing the saving powers of the poor when given the chance. This paper presents some of the financial instruments used by poor people and gives brief discussions on the types of savings tools poor people use. These tools, the Rotating Saving Credit Associations (ROSCAs) and the Susu system, are traced to their historical roots. We then use data to show that clients of a microfinance institution actively use these savings instruments to raise lump sum. The data show that clients use several saving instruments in addition to the institutions compulsory dues. These savings tools, ignored by the financial sector could be used to mobilize deposits from the poor people by the sector. It is envisaged that both the formal and informal financial sectors would learn from such ancient savings institutions to mobilize deposits from poor households.

JEL D19, O16
Key words: Clients, savings tools, ROSCAs, and *Susu*

1.0 INTRODUCTION

There is an ancient belief (without empirical basis) that poor people are too poor to save; however, findings from recent studies, and the deposits mobilized by institutions such as the Bank Rakyat Indonesia (BRI) and the Grameen Bank indicate a different picture. Available literature indicates that there are ancient forms of savings poor people use to raise lump sum. Some of the olden savings tools used by poor people are 'Rotating Saving Credit Associations' (ROSCAs) and *Susu* savings. ROSCA has been in practice on most continents since ancient times, and a form of raising lump sums by people (Anderson and Baland, 2002; Banerjee and Duflo, 2007), and its variant *Susu* is equally well known and very popular in Ghana.

SAT uses the group lending methodology to lend small (as small as GH¢100 for six months) loan to poor people to help them come out of poverty. The clients form self-selected groups who elect their leaders —chairperson and a secretary. The major duty of the leaders is to keep group records, receive the repayments and hand them over to SAT officials during the weekly/biweekly meetings. Repayments are spread in equal instalments over a six month period. The group is collectively liable if a member defaults, and the group cannot access further loan. SAT officials meet the groups at centers (community meetings) close to the clients' houses.

This paper collected data from clients of Sinapi Aba Trust (SAT) a microfinance institution (MFI) in Ghana, and founds that clients actively use these savings instruments showing their sophisticated savings life in spite of the compulsory savings that they pay to SAT during meeting days. Even though studies in the area have analysed the savings life of people, none is known to have interviewed clients of SAT to analysis their saving behavior. Thus, a major contribution to the literature is how the paper uses interview conducted on the clients of a MFI to analyse their savings life.

The paper finds that although poor clients of the SAT are 'forced' to save in a group savings account which they cannot access 'even in hard times', they have developed other savings strategies (ancient savings – ROSCAs and Susu) in dealing with income shocks. To some extent, the SAT has made credit available to the borrowers; but their savings needs remain unattended to, resulting in the use of these strategies to save. These ancient savings tools according to the respondents use simple rules; withdrawals are allowed unconditionally, and involve less documentation. These savings life of the clients may probably be unknown to the SAT, and the paper could help pave a way for SAT to restructure their products. The paper is organized into five sections. The next section briefly reviews the literature on the need for financial instruments by people in general. It then discusses some of the savings instruments the clients we interviewed use to raise lump sum. Section three discusses the methodology and data. Section four presents the findings and discussions from the data analysis. Descriptive statistics are used to show the sophisticated savings life of the clients we interviewed. Concluding remarks are ventured in Section five.

2 LITERATURE REVIEW

2.1 The Need for the Financial Instruments by People

To meet the numerous challenges in life requires efficient financial management skills of an individual whether rich or poor; however, our focus in this paper is on the instruments the poor use to 'overcome' these challenges. Though, there are various definition of the poor, for the purpose of this paper, we define poor as people who live on less than US$1.25 a day, an update in 2005 of the popular US$1 a day by Ravallion et al. (2009). Such people are avoided by the formal financial institutions in their operations. Thus, poor people do not have access to any choice of formal financial services and look elsewhere (mostly informal sector for their financial needs).

In the developed world, people have more choices in the form of credit cards, debit cards, cheque accounts, automated teller machines (ATMs) among others. However, in dealing with personal financial management, it is not uncommon that many individuals in the developed nations run into financial problems (Collins et al. 2009). Unfortunately, the poor people in *developing countries*, who are more vulnerable to risk, lack these financial tools to manage their lives and some may run into serious financial problems due to income shortfalls. However, others are able to work assiduously to overcome many difficult issues in life to meet these demanding events so as to smooth both consumption and income (Morduch, 1995), and cope with 'life cycle' needs, emergency needs and investment opportunities (Rutherford, 2009).

There are three areas in life where people (and the poor alike) use financial tools to manage what Collins et al. (2009) termed the so-called 'triple life issues' in everyday activities. The first is life-cycle needs such as child birth, marriage, funeral and education among others. Secondly, it is for emergencies – either personal or non-personal; regardless of which, when they do come they almost always require money to resolving them. Finally, money is needed to undertake investment opportunities like businesses, purchasing land and so on. There are more financial instruments poor people use to meet these challenges in life than is commonly believed, for they are 'active money managers'. In Bangladesh, Rutherford (2002) found that the 42 households he interviewed used 33 different types of financial tools during the study period, and Collins (2005) in a yearlong study of three townships in South Africa listed 17 diverse financial tools from the 166 households she interviewed. Nevertheless, there may be other tools not captured by these studies.

2.2 The Financial Tools

Some of the financial tools poor people use include but not limited to lending, borrowing, and savings. Detailed description of most of the financial instruments is found in Collins et al (2009); Collins (2005) and Rutherford (2002). In this paper, we briefly discuss the types of savings serving as alternative financial tools developed and in use by poor people.

2.2.1 The Savings Instruments

Saving (in various forms) as a financial instrument is extensively used by the poor. Since they know that in the 'near future', there will be a shortfall in income with no help from 'any where', the only hope to meet this need is to raise large lump sums of money against this economic downturn. As Rutherford (1999) argues, large sums could be raised in three main ways namely selling assets owned, taking loans by mortgaging (or pawning) those assets, and/or saving to accumulate a lump sum. Assets such as crops could be sold at any time by poor people. Also, mortgaging and pawning allow poor households to exchange assets for cash and vice versa. However, because poor households do not have enough assets, their ability to raise lump sum with these two approaches is limited. It is the third approach to raise lump sum - savings accumulation - that is reliable and thus popular. With this method, people convert small savings into big sums.

There are five broad savings categories; they are saving with a formal institution, a semi-formal institution, an informal mutual fund, informally one-on-one, and people saving by themselves (Rutherford, 2002). Our focus here is on the informal mutual savings which consists of ROSCA, 'Accumulating Savings for Credit Associations' (ASCAs), saving-up clubs, and *Susu* (a variant of ROSCA which is very popular in Ghana). We will limit our discussions to ROSCAs and the *Susu* system.

2.2.2 Rotational Savings and Credit Association (ROSCA)

The most popular savings tool for the informal sector and poor households are the savings clubs popularly known as ROSCAs and its variant known as *Susu* in Ghana. Whilst Geertz (1962:254) traces the roots of ROSCAs from the 'commercially developed regions of West Africa' during the slave trade era into the Caribbean and probably the southern areas of the United States, Ardener (1964) argues that available information indicates ROSCAs operated in Japan as far back as the thirtieth century (1275 AD). Handa and Kirton (1999) claim that ROSCAs also known in Jamaica as the 'Jamaican Partner', is a saving and credit mechanism with roots in the slave past brought to the island by African slaves which they originally used as a device to purchase their freedom. Poole and Grant (2003) mentioned that slaves from West Africa, during the slave trade era, operated a type of financial saving known as *Susu*, which is a form of ROSCA.

The formal label 'Rotating Credit Association' was first coined by Geertz (1962) who indicated that earlier writers have used different terms such as *contribution clubs, slates, mutual lending societies, pooling clubs, thrift groups, and friendly societies,* in reference to rotating credit association, though they all mean the same principle. Actually Bouman (1979) expanded the description to 'Rotational Savings and Credit Association' (ROSCA), which refers to the same concept and it is this label that has gained popularity in the literature on microfinance (Poole and Grant, 2003).

ROSCAs are made up of a group of participants who decide to contribute a fixed sum of money on a weekly or monthly base into a common fund. At the end of the week (or month as the case may be), the saved money (commonly known as the 'pot') is given to a member of the group. The 'pot' then rotates until every member receives his/her turn of the 'windfall'. Then, the group either disbands or the cycle begins again. The order of rotation is normally decided through a ballot also known as random allocation of the fund, or by a bidding (auction) procedure (Besley et al. 1994). In a bidding ROSCA, members bid for the funds during a meeting, and the highest bidder wins the 'pot'. Unlike in a random ROSCA, winners receive the total sum of the 'pot' less the amount bid (see Calomiris and Rajaraman, 1998 for calculations on bidding ROSCA). Winners are excluded from the next bidding.

The popularity of ROSCAs is such that, though microfinance clients pay group dues and in many cases save (voluntary saving), many of the participants would still partake in a ROSCA outside the scheme. ROSCA is the most dominant form of informal financial institution in most developing countries (Besley et al. 1993; Anderson and Baland, 2002). It is known as *Susu* in Ghana, *esusu* in Nigeria and Liberia, *osusu* in the Gambia, *asusu* in Sierra Leone, and *ndjonu* in Benin (Miracle et al. 1980; Steel et al. 1997); *arisan* in Indonesia (Geertz, 1962), *yao hui* in China (Fei, 1943); and the *tontine* in Cameroon and Senegal, *ekubs* in Ethiopia, *huis* in Vietnam, and *keh* (or *keye)* in Korea (Bouman, 1995). But a major trait in all the associations despite their geographical location is the composition; it is similar since the members who form the association are from the same locality. These variants of ROSCAs, irrespective of where they operate provide a type of informal financial service to its members; and draw people to participate. Contrary to popular perception, the practicing of ROSCA is not only limited to low income workers or those without financial access, World Bank, and the IMF workers, staff of commercial banks and the central bank of Indonesia do practice ROSCA (Poole and Grant, 2003). In addition, Besley et al. (1993) argued that America's *formal* Savings and Loans sector grew out of ROSCAs. Different characteristics of ROSCAs in countries and across countries are well documented in van den Brink and Chavas (1997), Geertz (1962), Bascom (1952), Gamble (1944) and Fei (1943) though these discussions do not exhaust their characteristics. Bouman (1995) documented the crucial role that ROSCAs played in the mobilization of funds in some countries including the US.

2.2.3 The *Susu* System (Mobile Banking)

In Ghana, another popular financial tool for mobilizing savings from the informal sector (mostly poor people) is termed *Susu*. *It* is a saving mobilizing system (mobile banking) that traces its route from migrant traders from Nigeria (Aryeetey and Gockel, 1991). There are two main types; individual *Susu* collectors and large *Susu* organization or *Susu* clubs. For the avoidance of doubt, the *Susu* collectors is used in reference to the two since their modus operandi is the same. With the operation of *Susu*, collectors (known as *Susu* collectors, who are mostly males) move from client to client in shops, work places, market stalls as well as homes, at specific times of each day purposely to collect money towards a savings plan. Usually, clients agree and determine the exact amount to save every day for a period of time (in most cases a month). At the end of each month (or the 30 days), the accumulated savings are returned to the clients with no interest; instead, one day's deposit, which serves as a commission to the *Susu* collector, is deducted from the deposit (Aryeetey and Steel, 1995). The rules are that the first deposit goes to the *Susu* collector (that is his commission) whether the client continue to save or not, so once the first deposit is made, the task lies on the individual to complete the cycle. In order words, a client pays the *Susu* collector (a day's deposit) for keeping safe the accumulated fund.

To ensure transparency, the *Susu* collector gives every client a card, divided into 30 boxes specifying the amount a client has decided to pay each day, with the *Susu* collector's contact address and other information. Once the first day's deposit is made, the first number in the box is crossed, this is repeated until all the 30 deposits are made in which case a cycle is completed. The collector spends a few minutes with the client in taking the deposit (this could be as little as 30 seconds); the time spent involves receiving the days deposit and crossing the next number on the card in the presence of the client. This practice of mobile banking is reported to operate in both rural and urban areas and even among office workers. Many collectors (especially older people) do it on part time basis, while many of the younger generation have, in recent years, engaged *Susu* collecting as a full time business (Aryeetey and Gockel, 1991; Aryeetey and Steel, 1995; Andah, 2005)

Even though they play an important role in savings mobilization, the *Susu* collectors are not regulated by any authorized body, yet people continue to save with them. In an effort to counter the negative image of the *Susu* industry and to generally lift standards, some of the *Susu* collectors in 1994 came together to form the Ghana Cooperative *Susu* Collectors Association (GCSCA), because of strict eligibility requirements, a high percentage of *Susu* collectors do not belong to this association (GCSCA, 2007; Andah, 2005). The association has designed codes of practices to standardize or streamline operational procedures and system of identification for its members. These include wearing of uniforms for identification, the establishment of apprenticeship arrangement for new *Susu* collectors under an experienced collector, and training in simple book-keeping practices.

The *Susu* system is very popular in both rural and urban areas in mobilizing savings, though stronger in the cities, particularly among the informal sector in Ghana (Aryeetey and Gockel, 1991). In the aforementioned study, they found that about 77 percent of the respondents operated a saving account with a *Susu* collector (and 20 percent operated two *Susu* accounts), while only 36.4 percent possessed a formal bank account. On the average, only 18.3 percent of total savings were at the bank, 18.2 percent at home, and over 50 percent with *Susu* collectors. Aryeetey and Steel (1995) documents the savings mobilization of *Susu* collectors which had been corroborated by Andah (2005). However, in this massive savings mobilization from poor people, the transaction cost to the collectors is insignificant compared to the commission they receive. From the discussions, we see that informal savings practices are prevalent among low income people. We now show with data how clients of Sinapi Aba Trust (SAT) lending scheme have used these tools to accumulate deposits.

3.0 Methodology and Description of Data

To analysis the savings life of SAT clients, the study collected data between July and September 2009 from three branches – Abeka, Tema and Kasoa of the institution via interviews. Each branch has several communities where the scheme's officials meet clients. The communities were selected using multistage sampling, whilst we selected clients randomly during community meetings at selected centers of the branches. We collected data in areas such as credit records, employment, income earnings, saving records, expenditure pattern, self and social empowerment. It is the savings records that we analysed in this study. Six research assistants helped the chief investigator to conduct the interview using structured questionnaire. We firstly conducted a pilot interview which helped us to revise the questions to reflect clients' views. Clients that participated in the pilot survey were excluded from sampling in the main survey. In all, we interviewed 672 clients from 11 'community centers'. The gender composition of clients in the data is 87 percent female and 13 percent male. We use descriptive statistics in analysing the data.

4 FINDINGS AND DISCUSSIONS

4.1 Evidence of Clients' Savings Portfolios

Data from our survey shows that ROSCA and its variant *Susu* are regular activities among SAT clients, exhibiting the saving power of poor people, as indicated in Table 1. Almost 61 percent saved with either a *Susu* or ROSCA before they joined SAT and, afterwards, close to 60 percent are still saving with these long-standing institutions. There are other forms of savings by the clients (not shown here): about 44 percent still operate a savings account with a formal financial institution, while 5 percent save in a box in the house.

Table 1: Saving with *Susu*/ROSCA

Before receiving loan from SAT			After receiving loan from SAT		
Do *Susu* Or ROSCA	Observation	Percentage	Still s aving *Susu*/ROSCA	Observation	Percentage
Yes	409	60.9	Yes	392	58.6
No	263	39.1	No	277	39.1
Total	672	100	Total	669*	100

** 3 clients did not answer this question.*

The popularity of *Susu* and ROSCA is simple and seen in the responses summarized in Table 2 to the question: 'Why do you save with a *Susu* collector or with a ROSCA?' Almost 46 percent said it is easy to embark on, and over 33 percent indicated there is flexibility in these forms of savings (unlike what was termed 'rigid' conditions of formal banking institutions). The less demanding documentation processes of these savings make them attractive. Indeed, in dealing with people who are poor and not well educated, merely requiring documentation is off-putting.

Table 2: Why Save with *Susu* or ROSCA? — Responses

Reason	Easy to save	No Rules	Less Paper work	Others	Total
Observation	186	136	75	12	409
Percentage	45.5	33.3	18.3	2.9	100

These responses suggest that most clients do not want complex procedures for embarking on savings and/or withdrawals. Furthermore, the study found that over 40 percent of SAT clients had saved in these old ways for more than four years and less than 10 percent for under one year. This suggests that many clients had raised lump sums for quite a long time before they participated in the SAT scheme. The study found three types of savings that clients still operate after they joined the SAT programme: compulsory group savings, voluntary group savings and saving with a *Susu* collector or a ROSCA. This is consistent with Karlan's (2007) findings in Peru, in which he finds that the clients were involved in such savings. The three types of savings are discussed below.

4.1 Compulsory Group Savings

The first savings instrument is the compulsory group savings. Most MFIs take group dues as savings from their clients even before they provide them with loans mostly as a pre-emptive 'statement' of intent not to default. A client forfeits the entire accumulated compulsory savings if the debt is greater than the savings, or receives the savings less the debt. The SAT, like most schemes, takes compulsory group savings from clients. This saving is also known as 'group dues', it is paid during community meetings to the group leader or secretary, and handed over to SAT officials. Table 3 presents the accumulated group dues by clients during meetings; the intervals are unequal and arbitrarily determined.

From the table, a little over 6 percent had accumulated up to GH¢24, and over 61 percent had up to GH¢149 with more than half (61 percent) accumulating GH¢80-149. The remaining (39 percent) accumulated savings ranged from GH¢150 to GH¢900, with about 11 percent saving GH¢301-900. The total accumulated amount is over GH¢88,000, the mean per client was GH¢153.71. Clients are not permitted to withdraw from this account 'even in hard times'. Accumulated amounts per client ranged from GH¢1 to Gh¢900.

Table 3: Distribution of Accumulated Compulsory Savings by Clients (Unequal Intervals)

Amount (GH¢)	Up to 24	25 to 50	51 to 79	80 to 100	101 to 149	150 to 200	201 to 300	301 to 400	401 to 900	Total
Observation	35	50	80	89	100	83	76	33	32	578
Percentage	6.1	8.6	13.8	15.4	17.5	14.2	13.2	5.7	5.5	100

There was large variation between the accumulated amounts. It is unclear why there exists large variance in the accumulated savings. A possible reason may be that SAT is not strict on clients who default in paying group dues, and members had decided not to pay them any longer. Indeed some of the respondents reported that they had accumulated so much in the group account that they did not want to pay group dues any more.

4.2 Voluntary Savings

The second saving tool is the individual voluntary savings. Unlike the compulsory dues, withdrawals are allowed with no conditions attached. Table 4 shows the distribution of clients' voluntary savings.

Table 4: Distribution of Clients Voluntary Savings Per-week or Fortnightly

Amount (GH¢)	Less than 1	1 to 1.99	2 to 2.99	3 to 4	5	10 to 320	Total
Observation	95	91	187	48	108	20	549
Percentage	17.3	16.6	34.0	8.8	19.7	3.6	100

As seen from Table 4, about 82 percent had saved in the voluntary savings account. The amount saved per week ranged from GH¢1 to GH¢320. The data demonstrate that about 17 percent of the clients who undertake voluntary savings saved less than GH¢1 a week (depending on the group's meeting schedule). Again, 34 percent of this group saved GH¢2–2.99 during meetings. Almost 20 percent saved GH¢5 on meeting days, and about 4 percent saved GH¢10 to 320 during meetings. Here too, it is unclear why the accumulated savings had large variance.

4.3 Additional Savings

A third savings portfolio the clients used, albeit outside the SAT, was saving with a *Susu* collector or joining a ROSCA. Some client had used this method prior to their joining the SAT programme, and still use them. About 58 percent still save with a *Susu* collector or with a ROSCA. The distribution of various amounts clients saved daily or weekly is shown in Table 5.

Table 5: Additional Savings Daily, Weekly or Fortnightly (Unequal Intervals)

Amount (GH¢)	<1	1.1-6	6.1-14	14.1-30	30.1-60	60.1-350	Total
Observation	79	109	89	64	39	12	392
Percentage	20.2	27.8	22.7	16.3	9.9	3.1	100

Just as with the two methods discussed earlier, the amount clients saved daily and weekly via these means differed greatly. Almost 20 percent of the clients used either tool to saved up to GH¢1.00, and almost another 20 percent saved GH¢1.10–3.00. About 3 percent save GH¢60.1–350.00. The methodology of the *Susu* system may cause great variations here. For example, assuming a client saved GH¢350 per week, then average daily savings ranged between GH¢50.00 and GH¢70.00 per person (compared with GH¢1.10 by other clients). A client who saves such an amount (between GH¢50.00 and GH¢70.00) might be earning a huge income, including: clients who sold cooked food in specific places ('chop-bar operators' who sold food and restaurant owners); retailers trading between cities or towns; and commercial transport owners.

Again, there was a large variation between amounts saved. Explanation may be that some clients intended to raise a lump sum to embark on a specific project, such as an investment in his/her business, or to save towards a prearranged social event, such as a wedding or a festival during a certain period (see Banerjee and Duflo, 2007). Another reason, that perhaps better explains the huge differences, may be that both poor and non-poor self-selected into different groups, and saved according to their ability. However, what is important is how the clients have adopted these savings practices to meet income shocks.

5. Concluding Remarks

This paper outlines some methods for financial institution that could help them mobilise savings from poor people. It lists some financial instruments and focuses on the savings tools that poor people use to raise lump sum. It then uses data collected from SAT clients in Ghana to show how they have used the saving tools. In addition to the institutions compulsory savings, clients do operate extra savings outside the institution. These are voluntary savings, the *Susu* collector or ROSCA and saving with a bank

An important lesson for both formal and informal financial institutions is to listen to the voices of their existing and potential clients and tailor their products according to their needs. We have seen here that clients saved outside the institution voluntarily, despite the fact that they pay their so-called compulsory (group) dues. MFIs could therefore introduce such saving products (voluntary savings) that could go a long way not only to mobilise savings, but also to minimize the institutions' over dependence on foreign donors to finance their operation. Additionally, they can conduct market surveys of their clients on the types and nature of products that they (the clients) want the institution to provide. If financial institutions are able to accumulate enough savings from clients via the savings mobilization, they may no longer depend solely on 'donors' for funding. Thus, since the MFI clients accumulate deposit using these methods, the institutions could introduce savings product as part of their services. There are two benefits; firstly, it will help their clients to save to raise lump sum, and secondly, it will reduce the institutions dependence on donors for funding. The mobilized money could be used to expand their operations. This fits the modern business approach of being a customer-centered business.

REFERENCES

Andah, D. O, (2005) 'Regulation, Supervision, and Access to Microfinance': The case of Ghana. *Essays on Regulation and Supervision,* Maryland, CGAP.

Anderson, S. and Baland, J.-M, (2002) 'The Economics of ROSCAS and Intrahousehold Resource Allocation' *The Quarterly Journal of Economics,* Vol 17 (3), pp 963 -95.

Ardener, S, (1964) 'The Comparative Study of Rotational Credit Associations' *The Journal of the Royal Anthropological Institute of Great Britain and Ireland,* 94 (2), pp 201-229.

Aryeetey, E. and Gockel, F, (1991) 'Mobilizing Domestic Resources for Capital Formation in Ghana': The Role of Informal Financial Sectors. Nairobi, AERC Research Paper 3.

Aryeetey, E. and Steel, W, (1995) 'Savings Collectors and Financial Intermediation in Ghana', *Savings and Development,* 19.

Banerjee, A. V. and Duflo, E, (2007) 'The Economic Lives of the Poor', *Journal of Economic Perspective,* Vol 21 (1), pp 141 - 167.

Bascom, W. R, (1952) 'The Esusu: A Credit Institution of the Yoruba', *The Journal of the Royal Anthropological Institute of Great Britain and Ireland,* Vol 82 No 1, pp 63 -69.

Besley, T., Coate, S. and Loury, G, (1993) 'The Economics of Rotating Savings and Credit Associations', *The American Economic Review,* Vol 83 (4), pp 792-810.

Besley, T., Coate, S. and Loury, G, (1994) 'Rotation Savings and Credit Associations, Credit Markets and Efficiency', *The Review of Economic Studies,* Vol 61 (4), pp 701-719.

Bouman, F. J. A, (1979) 'ROSCA: Financial Technology of an Informal Savings and Credit Institution in Developing Countries', *Savings and Development,* 3 No 4, 253-276.

Bouman, F. J. A, (1995) 'Rotating and Accumulating Savings and Credit Associations: A Development Perspective', *World Development,* Vol 23 No 3, pp 371-384.

Calomiris, C. W. and Rajaraman, I, (1998) 'The Role of ROSCAs: lumpy durables or event insurance?', *Journal of Development Economics,* Vol 56, pp 207-216.

Collins, D, (2005) 'Financial Instruments of the Poor: Initial Findings from the South African Financial Diaries Study', *Development Southern African,* Vol 22 (5), pp 717-728.

Collins, D., Morduch, J., Rutherford, S. and Ruthven, O, (2009) *Portfolios of the Poor: How the World's Poor Live on $2 a Day,* Princeton, Princeton University Press.

Fei, H. T, (1943) *Peasant Life in China: A Field Survey of Country Life in the Yangtze Valley,* London, Kegan Paul Trench Trubner and CO LTD.

Gamble, S. D, (1944) 'A Chinese Mutual savings Society' *Far East Quarterly* Vol 4 No 1, pp 41-52.
GCSCA, (2008) GCSCA. Accra, GCSCA: Available at http://ghanasusu.com/.

Geertz, C, (1962) 'The Rotating Credit

Association: A 'Middle Rung' in Development', *Economic Development and Cultural Change*, Vol 10 No 3, pp 241-263.

Handa, S. and Kirton, C, (1999) 'The Economics of Rotating savings and Credit Associations: Evidence from Jamaican 'Partner'', *Journal Of Development Economics*, Vol 60 (1999), pp 173-194.

Karlan, D. S. (2007), 'Social Connections and Group Banking', *The Economic Journal*, Vol 117 (February) pp F52-F84.

Miracle, M. P., Miracle, D. S. and Cohen, L, (1980) 'Informal Savings Mobilization in Africa', *Economic Development and Cultural Change*, Vol 28 No 4, pp 701-724.

Morduch, J, (1995) 'Income Smoothing and Consumption Smoothing', *The Journal of Economic Perspectives*, Vol 9 (3), pp 103-114.

Poole, B. S. and Grant, L. A, (2003) 'Jamaican Partner: From Slavery to Financial Freedom', MEA Presentation 2003.

Ravallion, M., Chen, S. and Sangraula, P, (2009) 'Dollar a Day Revisited', *The World Bank Economic Review*, Vol 23 (2), pp 163-184.

Rutherford, S, (1999) *The Poor and their Money: An Essay about financial services for the poor people*, New Delhi, DFID.

Rutherford, S, (2002) Money Talks: Conversations with Poor Households in Bangladesh about Managing Money. Manchester, Finance and Development Research Programme Working Paper Series Paper No 45, Institute for Development Policy and Management.

Rutherford, S, (Ed.) (2009) *The Need to Save in Hulme, D and Arun, T 'Microfinance: A Reader'*, New York, Ruthledge.

Steel, W. F., Aryeetey, E., Hettige, H. and Nissanke, M, (1997) 'Informal Financial Markets Under Liberalization in Four African Countries', *World Development*, Vol 25 No 5, pp 817-830.

van den Brink, R. and Chaves, J.-P, (1997) 'The Microeconomics of an Indigenous African Institutions: The Rotation Savings and Credit Association', *Economic Development and Cultural Change*, Vol 45 pp 745-772.

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CASHFLOW FORECASTING IN THE CONSTRUCTION INDUSTRY: THE CASE OF GHANA

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Abstract

Research has shown that only one out of eight projects in the USA is successful (David and Trevor, 2011). Park, Seung and Rusells (2005) quoted Russell (1991) who found that more than 60% of construction contractor's failure is due to economic factors. Thus, when planning funding requirements of a business, it is more important to manage the likely cash requirements than to merely project profitability. Whilst profit is a vital indicator of the performance of a project, the generation of profit does not necessarily guarantee its realization development, or even survival. It is imperative to note that more businesses fail for lack of cash flow than for want of profit.

This paper discusses and highlights the results of a study conducted to determine, rate, and rank the significant factors that affect the cash flow of contractors in Ghana. The District Assembly Common Funded (DACF) project was used as a case study. The paper adopted the qualitative and quantitative research methods. In terms of quantitative methods, primary data was gathered through structured questionnaires distributed to contractors, consultants, district assemblies (clients) in the Ashanti and Brong Ahafo regions of Ghana. The sample size was drawn using the Kish (1965) method. In total, 123 out of 152 questionnaires were retrieved indicating 81% response rate.

Statistical analysis, using relative importance indices, significance testing and concordance testing revealed that 15 factors significantly affect the cash flow status of a contractor during the currency of construction projects. These factors were further categorised into either endogenous or exogenous groupings, based on the source of the factor and its effect on the construction firm. It was further revealed that cash flow factors could be considered to have contractor inclination or contractual influence depending on the extent of skewness of these factors to the former. The paper recommends that, to enhance effective productivity through cash flow systems, there must be a balance between the exogenous and endogenous factors, with the diligently undertaking risk analysis for the prospects of the project and the client making conscious effort not to violate the contractual factors.

Key words: Contractor, Significant Factors, Prediction, Endogenous, Exogenous, S-curve, Life-Cycle Costing

INTRODUCTION

A study conducted by Hohuabu in 2005 revealed only 17% of contractors practice cash flow prediction. About 41.5 % indicated that they hardly practice cash flow prediction with another 41.5% stating that they never practiced cash flow prediction in Ghana. While the importance of financial and cash-flow management is normally discussed at total company level, most of the models of cash flow prediction are individually developed for specific project.

Financial management has for long been recognized as an important strategic management tool. Since all investment involve risk taking, any firm which invests expects to make dividends at the end of the accounting year in return for his investment. It is expected that a well planned project cash flow pattern would enhance the ability to finance the project effectively. Managing cash flows is one of the most difficult tasks to undertake, because cash is one of the most unstable economic parameters. The uncertainty in estimating cash flows arises due to ambiguity in available data coupled with the numerous arbitrary assumptions, projections and forecast, which are also affected by both internal and external factors. Hohuabu (2004) postulated that poor project planning and fluctuation in local currency against the major world currencies were the main causes of construction cost escalation.

Cash flow prediction or projection is considered one of the most crucial steps in investment analysis, and should however not be confused with profit or profit flow. Profit is measured by an accountant based on an accrual concept. The term profit is also very ambiguous to explain. Imperatively, the later could mean profit in the short run which is different from profit in the long run or profit before tax, profit after tax, total profit or profit per share. Accordingly, changes in profit do not indicate corresponding changes in cash flow.

Many factors affect a contractor's cash flow hence dictating the shape of the S-curve (net cash flow curve) of the contractor. All factors affecting the contractor's cash inflow and outflow to some extent affect the shape of the S-curve both directly and indirectly. According to Buertey (2011) in Kaka (1995), over fifty (50) factors affect the cash flow of the Contractor.

Importance of a Contractor's Cash Flow Prediction

Chen et al (2007) stated that cash flow is the life of a business. Park et al (2005) quoting Singh et al (1992) states that cash is the most important of a construction company's resources. Whilst profit is a vital indicator of the performance of a business, the generation of profit does not necessarily guarantee its development, or even survival. It is imperative to note that more businesses fail for lack of cash flow than for want of profit. Most contractors working on construction projects suffer serious liquidity and cash flow problems.

Peers (1992) postulated that a proper cash flow management system is crucial for the survival of a construction firm because cash is one of the most important corporate resources and current asset for the day-to-day activities of a firm. A proper cash flow management system is also important as a means of obtaining loan from a bank or financial institution. Other capital markets are normally inclined to lend money to firms that present periodic excellent cash flow forecast. Cash flow at the project level is important not only as a basis of company level cash flow but it should be practiced at different stages of the project life cycle starting at the bidding stage of the project where a decision to bid for a project can be influenced by financial considerations, such as capital cost, and maximum expenditure constraint.

Kaka (1995) held that an accurate cash flow prediction is essential at the tendering stage to all contractors. It provides contractors with the information regarding the amount of working capital required to perform a contract, the amount of interest that need to be paid to support an overdraft, and the evaluation of different tendering strategies. Kaka further added that ideally, cash flow prediction should be linked to the construction programme, schedules and bill of quantities.

Contractors are not only concerned with profit or turnover. An important factor that need to be considered in assessing the worth of a company or viability of a project is the return on capital invested. The latter has made enlightened contractors become more acutely aware of the need to maintain cash flow stream. For each project executed by a firm, it is expected that the estimates of amounts, uncertainty, and timing of the cash flow resulting from the investment would be carefully analysed on incremental basis throughout the project or production cycle (Pandey, 2002).

Cash is important for the day-to-day existence of a company and some contractors have suffered a downfall not because their work was not profitable but due to lack of cash in the short run. During periods of inflation, poor cash flow can lead to reduced profit, which in turn can produce a rippling effect on shareholders return. Xuequing (2005) after studying the critical success factors of infrastructural projects; held that most projects are abandoned at just 30% completion stage with just a few going through to completion thus meeting the stipulated contract duration and project characteristics. Park et al (2005) quoted Russell (1991) that more than 60% of construction contractor's failure is due to economic factors.

According to Ashworth (1995), the importance of cash flow prediction cannot be over emphasized. Amongst others, it is required for:

- Early price estimating,
- The setting of budgets and targets,
- Analysis of future financial position of the firm and
- Final accounting predictions and life cycle costing.

Over the years, some attempts have been made to improve the contractors estimating performance, since its achievement will help eliminate some of the variability in the prediction required by the client. Cash flows cannot be assumed to be equally distributed over the entire project duration. A peak in activity is often achieved about two-thirds way through the entire contract period (Kwakye, 1997). There is hence the need to prepare an expected cash flow related to the contractor's programme of activities. Financial control of any construction project commences at inception and continues until total completion or close of the project

In most cases, a contract budget which is a financial plan prepared to monitor and control income and expenditure in any organization to measure performance is issued to determine cash flow requirements for the part or entire duration of the project. In addition, the budget serves as a yardstick against which actual performance is measured.

Contractor's Income Curve

The major sources of income to all contractors who undertake construction project are interim valuations and related claims. Differences exist between the terms and conditions of a contract for most projects. This is exemplified especially as to which of the parties is responsible for the preparation of interim valuations, the dates for interim valuations, and the minimum amount at interim valuation. Under the conditions of contracts for most projects, the responsibility for preparing such interim valuation is placed on the employer's appointed project manager. The project manager's valuation takes account of any application for payment made by the contractor. The valuation also considers the current forecast of actual construction (which represents the direct cost of materials, labour and plant to execute the project) for the works submitted by the contractor. These interim payments are of critical importance to the contractor's cash flow. Thus, contractors are faced with undertaking interim valuations, usually at monthly intervals or stage evaluation, although this can vary.

The importance of these valuations stems from the fact that they:

- Control the contractor's cash in flow
- Provide financial information for the contractor
- Serve as information on the general progress of the works

According to Navon (1995), the income flow for a typical project is calculated on the basis of cost flow, taking into consideration retention and billing period as

$$I_t = (1 - \frac{R}{100}) \times C_{t-b} + M_t$$

Where:

- I_t is the cash inflow (revenue) for time period t,
- R is the retention,
- C_{t-b} is the direct cost for period t-b, b is the billing period and
- M_t is the additional payment determined by the contract.

Contractor's Expenditure Curve

During the production process, the contractor expends on various activities and expects to be reimbursed on the expenses made. This forms what is called 'the cyclic income and expenditure curve' of the contractor. Throughout the active stage of a project, expenditure is an ongoing process which occurs at irregular intervals during the project duration. A plotted expenditure pattern for a typical project which includes the entire direct and indirect cost and head office expenses normally rises or peaks, and then begins to fall, along the trajectory or duration of the project.

Research has however shown that, for most building construction projects, a chunk of the cash out flow is expended directly or indirectly on materials procured, except for capital intensive civil works. Contractors can thus negotiate the billing period with nominated suppliers for the payment of the cost of materials purchased to be deferred until a later date after certificates have been honoured by the client. According to Navon

(1995), the minimum stock level for materials in any firm is given by the formulae

$$Q(M_i) = Q_{max}(M_i) - Q_{min}(M_i)$$

Where

- Q_{max} is the maximum stock size for material M_i and
- Q_{min} is the minimum stock size for material M_i and
- $Q(M_i)$ is the material to be purchased or ordered.

Research Method

Population

This paper is based on a mix methodological approach of data collection: quantitative and qualitative procedures. With the application of the quantitative data collection, a survey questionnaire was designed and administered to contractors, consultants and clients working on district assembly common fund projects in the two regions. The sample size was determined through the Kish (1965) method from a population size of 26 consultants, 206 contractors and 38 district assemblies in the Ashanti and Brong Ahafo regions of Ghana. A summary of the returned completed questionnaire is shown in table 1 below.

Table 1: Summary of Responses of Questionnaires Sent Out

Respondents	Question-naires out	Response	Percentage response (%)
Consultants	26	22	84.62%
Contractors	88	71	80.68%
District Assemblies	38	30	78.95%
Total	152	123	80.93%

Source: Author's Field Survey

Questionnaire Design and Data Collection

The questionnaires listed 30 factors that could potentially affect the cash flow of contractors for respondents to rate. Respondents were requested to rate the above factors against a five point Likert scale of 1= not important; 2= slightly important; 3=moderately important; 4=very important; and 5=extremely important. All the questionnaires were administered personally to the respondents during which advantage was taken to interview some top and middle level management staff. Respondents were given three weeks to fill the questionnaires after which they were personally collected for analysis. During the period between distribution and collection, respondents were called on phone or e-mailed to remind them of the questionnaires.

Data analysis

The quantitative data was analysed based on the five-point Likert scale ratings provided by the respondents. These ratings were combined to deduce the relative importance indices of the factors based on respondents, after which further analysis were made to compute the overall cash flow factors from the three responses based on the total sample size. Based on analysis of the responses from respondents, ratings of the overall cash flow factors was computed based on the total sample size involving contractors, consultant and clients together. The weightings and relative importance indices of the R_{ax}, R_{bx} and R_{cx} were combined as follows: adding the product of the Relative Importance indices for each group and adding the product of the proportion of respondents from the corresponding group (as a proportion of the total response)

For example, the overall Ranking Rz for Minimum Amount of Valuation is calculated as follows

$$=(((0.68 \times (71/123)) + (0.71 \times (22/123)) + (0.81 \times (30/123))) = 0.716$$

Response for contractors is 71, response for consultant is 22 and that for district assemblies is 30 and total response is 123.

The weightings for each factor were computed separately and then used to rank the identified factors in the order of importance as shown in Table 2.

A z-test was conducted at 5% significance level to confirm the significance of each variable on the hypothesis:

Null Hypothesis

- H_o: The variable (factor) has a considerably strong influence. Thus accept factor as significant

Alternate Hypothesis

- H_1: The variable (factor) does not have a considerably strong influence. Thus reject factor as not having significant influence

Based on Table 4, Significance testing was used to decide whether to accept or reject the null Hypothesis, Ho. An evaluation of the test statistics (X) was done and the probability (p-value) of observing a value of the test statistics was also determined. The 'p' value was taken as the smallest value at which the significance level (α) could be present and still have small (lesser than 5% significance level) (Milton and Arnold, 1998).

The sample mean for the data in respect of each factor and the effect of variation are shown in the table 5.9. The 5-point rating (1, 2, 3, 4 and 5) have mean of 3 with a standard deviation of 1.58. The p-value for the test was determined to find out if there was much difference between the null value of $\mu=3$, and the sample means in table 5.9 to cause the rejection of the Ho. The profitability of observing the sample mean or larger $\mu = 3$ and $\sigma = 1.58$ was computed. The test statistics (X) was the central limit theorem, where x is approximately normally distributed with mean $\mu = 3$ and standard deviation, $\sigma/\sqrt{n}$ where n = number of responses for that factor. The p-value was obtained using the relation below.

$$P = (x \geq \mu) = p\left(z \geq \frac{x-\mu}{(\sigma/\sqrt{n})}\right)$$

$$= 1 - P\left(z \leq \frac{x-\mu}{(\sigma/\sqrt{n})}\right)$$

From the cumulative distribution standard normal table, where $F_z(z) = P[Z \leq z]$, the value of z ranges from -3.9 to 3.9. Any value of z less than -3.9 has a Fz(z) of zero (0) whereas vales of more than 3.9 has Fz(z) of unity (1).

The p- value is the smallest level of significance for which the observed data would call rejection of Ho in favor of H1. The p-value gives additional insight into the strength of the decision taken. Thus a relatively small p-value of 0.001 indicates that there is little likelihood that H_o is true. On the other hand a high p- value such as 0.2033 means that H_o is not rejected and there is little likelihood that it is false.

The p-value is often referred to as the observed level of significance for a given level of significance, α; thus the larger population has a distribution of $P\sim X\,[\mu = 3, \sigma = 1.58]$ 7.67

For example the P- value for 'Effective margins' is calculated as follows

$$P[X \geq 4.696], = p\,\frac{[4.63-3]}{(0.21/\sqrt{123})}$$

$$P\,[Z \geq 0.69] = 0.845$$

Since the null hypothesis H_o= 0.05< 0.945, we accept H_o, thus the factor Effective margins' is an important factor affecting contractors cash flow.

For rating to be done based on the total sample size of contractors, consultants and clients, the coefficient of variation (COV) was determined. This was used to determine the relative variability of the responses from the three groups to the factors that affect the cash flow of contactors. A relatively low coefficient of variation indicates that there exists a relatively high agreement between the three respondents. The coefficient of variation expresses the standard deviation of the respondent from each of the three groups as a percentage of the mean (Elhag et al, 2002).

COV = S/X x 100 %

Where

COV= Coefficient of variation

S= standard deviation

X= Weighted mean ranking

The group mean and standard deviations is calculated as shown in table 4 below.

For example COV for Item 6 (rate of retention) is calculated as

COV = S/X x 100 = 0.36/4.11 x 100 =

Also the COV for Item 17 (company cash flow) is given as

COV = 0.46/1.98 x 100 = 22.94.

The relatively low coefficients of variation deduced in the table above indicates that the responses of the Contractors, Consultants and District Assemblies do not differ much in their rating of the factors that affect the cash flow of Contractors.

Thirdly, to serve as verification to the outcome of the COV and overall rating of the three (3) responses, a concordance test was calculated using Kendal's coefficient of concordance (W). The later is used to measure the degree of agreement by the three judges who rated the factors.

$$W = \frac{S}{1/12(K)^2(N^3-N)}.$$

Where $S = (\Sigma Ri - \Sigma Ri / N)^2$

S= standard deviation

Ri = summation of the ranking of the three categories for the respective factor and effects

N= Number of factors

K = Number of categories

W = Kendal's coefficient of concordance

Table 2: Overall Ranking of Factors Affecting the Cash Flow of Contractors'

Item	Factors Affecting Contractors Cash flow	Contractors		Consultants		Dist Assembly		O/A Indx	O/A Rank
		Rel Indx	Rank	Rel Indx	Rank	Rel Indx	Rank		
1	Contractual specification for minimum amount valuation	0.68	15	0.71	16	0.81	14	0.716	14
2	Bank overdraft - (Availability of cash credit facility)	0.83	4	0.79	10	0.92	6	0.842	6
3	Advanced payment	0.70	13	0.77	11	0.86	9	0.749	12
4	Timing interval between two certificates	0.74	9	0.86	5	0.97	2	0.817	4
5	Period of honouring certificates by client	0.88	2	0.80	9	0.99	1	0.889	3
6	Rate of retention	0.79	7	0.84	6	0.89	8	0.822	8
7	Limit of retention	0.71	12	0.73	14	0.77	15	0.727	13
8	Interest rates	0.55	22	0.44	28	0.73	16	0.571	20
9	Degree of variation	0.57	20	0.56	24	0.61	19	0.575	19
10	Withholding tax	0.56	21	0.93	3	0.85	10	0.695	15
11	Effective margins	0.90	1	0.97	1	0.97	3	0.927	1
12	Overheads	0.73	10	0.76	12	0.83	13	0.759	10
13	Pricing strategy (front end loading and back end loading,)	0.82	5	0.91	4	0.93	4	0.860	5
14	Over measurement and under measurements	0.86	3	0.95	2	0.92	5	0.891	2
15	Delay in paying creditors (material suppliers and plant hirers)	0.80	6	0.82	8	0.85	11	0.818	7
16	Quality of measurement accuracy in valuation	0.69	14	0.64	21	0.53	23	0.642	16
17	Company Cash flow	0.28	29	0.57	23	0.55	22	0.396	29
18	Economic instability/ Price Instability	0.66	16	0.65	20	0.59	20	0.639	17
19	Contract type (fixed, cost plus, etc)	0.47	23	0.39	29	0.36	28	0.428	27
20	Poor site management	0.42	27	0.59	22	0.47	25	0.463	25
21	Experience of contractor and level of mistakes during construction	0.36	28	0.49	25	0.42	26	0.398	28
22	Poor supervision	0.45	25	0.45	26	0.39	27	0.431	26
23	Cost overruns	0.46	24	0.72	15	0.63	17	0.546	21
24	Number of projects being handled by the firm	0.43	26	0.67	19	0.57	21	0.508	23
25	Sub -contractors retention held by main contractor	0.60	18	0.45	27	0.28	28	0.496	24
26	Discount on material purchased	0.72	11	0.75	13	0.84	12	0.752	11
27	Value of preliminaries	0.77	8	0.82	7	0.90	7	0.811	9
28	Material on site	0.59	19	0.68	18	0.28	29	0.530	22
29	Material in transit	0.25	30	0.27	30	0.20	30	0.239	30
30	Time over-runs	0.61	17	0.69	17	0.61	18	0.624	18

Source: Author's Field Survey

TABLE 3 Concordance Testing of Factors Affecting Contractor's Cash Flow

Item	Factors Affecting Contractors Cash Flow	Contractors Rank	Consultants Rank	Assembly Rank	Ri	Ri-(Ri/N)	Ri-(Ri/N)
1	Contractual specification for minimum amount valuation	15	16	14	41	-4.97	24.67
2	Bank overdraft- (Availability of cash credit facility)	4	10	6	25	-20.97	439.60
3	Advanced Payment	13	11	2	29	-16.97	287.87
4	Timing interval between two certificates	9	5	1	23	-22.97	527.47
5	Period of honouring certificates by client	2	9	9	17	-28.97	839.07
6	Rate of retention	7	6	8	27	-18.97	359.73
7	Limit of retention	12	14	15	54	8.03	64.53
8	Interest rates	22	28	16	74	28.03	785.87
9	Degree of variation	20	24	19	47	1.03	1.07
10	Withholding tax	21	3	10	25	-20.97	439.60
11	Effective margins	1	1	3	14	-31.97	1021.87
12	Overheads	10	12	13	26	-19.97	398.67
13	Pricing strategy (front end loading and back end loading,)	5	4	4	11	-34.97	1222.67
14	Over measurement and under measurements	3	2	5	13	-32.97	1086.80
15	Delay in paying creditors (material suppliers and plant hirers)	6	8	11	35	-10.97	120.27
16	Quality of measurement accuracy in valuation	14	21	23	58	12.03	144.80
17	Company cash flow	29	23	22	72	26.03	677.73
18	Economic instability/ Price instability	16	20	20	65	19.03	362.27
19	Contract type (fixed, cost plus, etc)	23	29	28	74	28.03	785.87
20	Poor Site management	27	22	25	74	28.03	785.87
21	Experience of contractor and level of mistakes during construction	28	25	26	79	33.03	1091.20
22	Poor supervision	25	26	27	66	20.03	401.33
23	Cost overruns	24	15	17	58	12.03	144.80
24	Number of projects being handled by the firm	26	19	21	72	26.03	677.73
25	Sub Contractors retention held by main contractor	18	27	28	58	12.03	144.80
26	Discount on material purchased	11	13	12	31	-14.97	224.00
27	Value of preliminaries	8	7	7	33	-12.97	168.13
28	Material on site	19	18	29	67	21.03	442.40
29	Material in transit	30	30	30	77	31.03	963.07
30	Time over-runs	17	17	18	34	-11.97	143.20

Source: Author's Field Survey

TABLE 4: Significance Testing Of Factors Affecting Contractors Cashflow

Item	Factors Affecting Contractors Cash Flow	Mean	Standard Dev.	Coeff of variation.	Weighted (Raz)	P-value	Acceptance or rejection
1	Contractual Specification for minimum amount valuation	3.59	0.58	16.08	0.72	0.09	A
2	Bank overdraft- (Availability of cash credit facility)	4.21	0.39	9.32	0.84	0.28	A
3	Advanced Payment	3.75	0.48	12.71	0.75	0.14	A
4	Timing interval between two certificates	4.09	0.57	13.92	0.82	0.17	A
5	Period of honouring certificates by client	4.45	0.27	6.07	0.89	0.48	A
6	Rate of retention	4.11	0.36	8.74	0.82	0.28	A
7	Limit of retention	3.63	0.43	11.92	0.73	0.13	A
8	Interest rates	2.86	0.70	24.52	0.57	0.00	R
9	Degree of variation	2.88	0.60	20.79	0.58	0.00	R
10	Withholding tax	3.48	0.92	26.48	0.69	0.05	A
11	Effective margins	4.63	0.21	4.61	0.93	0.69	A
12	Overheads	3.80	0.41	10.70	0.76	0.18	A
13	Pricing strategy (front end loading and back end loading,)	4.30	0.41	9.44	0.86	0.29	A
14	Over measurement and under measurements	4.46	0.27	6.07	0.89	0.49	A
15	Delay in paying creditors (material suppliers and plant hirers)	4.09	0.37	8.95	0.82	0.27	A
16	Quality of measurement accuracy in valuation	3.20	0.59	18.52	0.64	0.03	A
17	Company cash flow	1.98	0.46	22.94	0.40	0.00	R
18	Economic instability/ Price instability	3.20	0.58	18.23	0.64	0.03	A
19	Contract type (fixed, cost plus, etc)	2.14	0.50	23.32	0.43	0.00	R
20	Poor Site management	2.32	0.46	19.76	0.46	0.00	R
21	Experience of contractor and level of mistakes during construction	1.99	0.43	21.43	0.40	0.00	R
22	Poor Supervision	2.15	0.36	16.62	0.43	0.00	R
23	Cost Overruns	2.73	0.66	24.13	0.55	0.00	R
24	Number of projects being handled by the firm	2.54	0.50	19.57	0.51	0.00	R
25	Sub-contractors retention held by main contractor	2.47	0.92	37.28	0.50	0.00	R
26	Discount on material purchased	3.80	0.41	10.70	0.75	0.18	A
27	Value of preliminaries	4.06	0.39	9.68	0.81	0.24	A
28	Material on site	2.64	0.96	36.35	0.53	0.00	R
29	Material in transit	1.20	0.10	8.61	0.24	0.00	R
30	Time over-runs	3.12	0.70	22.55	0.62	0.02	A

Source: Author's Field Survey

Table 5B: Combined Overall Rating Of Factors Affecting Cash Flow Of Contractors

ITEM	FACTORS AFFECTING CONTRACTORS CASHFLOW	Mode	Mode Freq	Rating < Mod Freq	Rating > Mod Freq	Mode <= Mod freq	Total Reponses	Mode %	%Rating < Mod Freq	%Rating > Mod Freq	%Mode <= Mod freq	Mean	Average Deviation	Interprt of Mode	Rel Imp Indx	Rank	p-value
1	Contractual Specification for minimum amount valuation	4	39	47	58	86	105	0.371	0.448	0.552	0.819	3.505	0.833	VR	4.907	14	0.970
2	Bank overdraft- (Availability of cash credit facility)	5	47	74	31	105	105	0.448	0.705	0.295	1.000	4.143	0.803	HR	5.800	5	1.290
3	Advanced Payment	3	36	12	93	48	105	0.343	0.114	0.886	0.457	3.714	0.823	RR	5.200	11	1.160
4	Timing interval between two certificates	4	38	23	82	67	105	0.362	0.219	0.781	0.638	3.971	0.811	VR	5.560	9	1.190
5	Period of honouring certificates by client	5	49	67	38	105	105	0.467	0.638	0.362	1.000	4.295	0.795	HR	6.013	3	1.390
6	Rate of Retention	5	40	67	37	104	104	0.385	0.644	0.356	1.000	4.057	0.797	HR	5.680	6	1.230
7	Limit of retention	3	40	12	93	52	105	0.381	0.114	0.886	0.495	3.600	0.829	RR	5.040	13	1.010
8	Interest rates	2	36	14	91	50	105	0.343	0.133	0.867	0.476	2.733	0.870	RR	3.827	21	0.710
9	Degree of variation	3	44	34	71	78	105	0.419	0.324	0.676	0.743	2.876	0.863	RR	4.027	19	3.600
10	Withholding tax	4	29	49	56	78	105	0.276	0.467	0.533	0.743	3.343	0.841	VR	4.680	15	1.225
11	Effective margins	5	72	78	27	105	105	0.686	0.743	0.257	1.000	4.600	0.781	HR	6.440	1	2.600
12	Overheads	4	39	42	63	81	105	0.371	0.400	0.600	0.771	3.733	0.822	VR	5.227	12	1.175
13	Pricing strategy (front end loading and back end loading,)	5	54	75	30	105	105	0.514	0.714	0.286	1.000	4.248	0.798	HR	5.947	4	1.360
14	Over measurement and under measurements	5	59	70	35	105	105	0.562	0.667	0.333	1.000	4.429	0.789	HR	6.200	2	1.500
15	Time Internal between cost commitment	5	40	65	40	105	105	0.381	0.619	0.381	1.000	4.057	0.807	HR	5.680	7	1.240
16	Quality of measurement accuracy in valuation	4	33	57	48	90	105	0.314	0.543	0.457	0.857	3.295	0.843	VR	4.613	16	0.890
17	Company Cash flow	1	46	0	105	46	105	0.438	0.000	1.000	0.438	1.857	0.912	IR	2.600	29	0.480
18	Economic Instability/ Price Instability	3	39	24	81	9	105	0.371	0.229	0.771	0.086	3.238	0.846	RR	4.533	17	0.870
19	Contract type (fixed, cost plus, etc)	2	32	32	73	64	105	0.305	0.305	0.695	0.610	2.200	0.895	RR	3.080	27	0.660
20	Poor Site management	2	36	25	80	61	105	0.343	0.238	0.762	0.581	2.314	0.890	RR	3.240	25	0.690
21	Experience of Contractor	1	40	0	105	40	105	0.381	0.000	1.000	0.381	1.971	0.906	IR	2.760	28	0.500

Authors' Field Survey

Table 25: Combined Overall Rating of Factors Affecting Cash Flow of Contractors

ITEM	FACTORS AFFECTING CONTRACTORS CASHFLOW	Mode	Mode Freq	Rating < Mod Freq	Rating > Mod Freq	Mode <= Mod freq	Total Reponses	Mode %	%Rating < Mod Freq	%Rating > Mod Freq	%Mode <= Mod freq	Mean	Average Deviation	Interprt of Mode	Rel Imp Indx	Rank	p-value
22	Poor Supervision	2	39	25	80	64	105	0.371	0.238	0.762	0.610	2.190	0.896	RR	3.067	26	0.560
23	Cost Overruns	3	27	47	58	74	105	0.257	0.448	0.552	0.705	2.657	0.873	RR	3.720	22	0.720
24	Number of projects being handled by the firm	3	38	52	53	90	105	0.362	0.495	0.505	0.857	2.495	0.881	RR	3.493	24	0.740
25	Sub Contractors retention held by main Contractor	1	30	0	105	30	105	0.286	0.000	1.000	0.286	2.657	0.873	IR	3.720	23	0.685
26	Discount on material purchased	4	34	45	60	79	105	0.324	0.429	0.571	0.752	3.695	0.824	VR	5.173	12	1.150
27	Value of Preliminaries	5	41	64	41	105	105	0.390	0.610	0.390	1.000	3.981	0.810	HR	5.573	8	1.200
28	Material On site	2	31	19	86	50	105	0.295	0.181	0.819	0.476	2.857	0.864	RR	4.000	20	0.750
29	Material in transit	1	84	0	105	84	105	0.800	0.000	1.000	0.800	1.229	0.941	IR	1.720	30	0.340
30	Time over-runs	4	33	59	46	92	105	0.314	0.562	0.438	0.876	3.133	0.851	VR	4.387	18	0.835

Authors' Field Survey

The value of w ranges between -1 to +1 inclusive. A 'w' value of approaching +1 indicates a strong concordance between s and w whereas a 'w' value of approaching -1 indicates a non-concordance. Find below the concordance test for factors affecting contractor's cash flow as shown in Table 3 which is calculated as follows

$\Sigma Ri = 1379$

$\frac{\Sigma Ri}{N} = \frac{1379}{30} = 45.96$

$S = (\Sigma Ri - \Sigma Ri / N)^2 = 14776.97$

$$W = \frac{S}{1/12(K)^2(N^3 - N)}$$

$$W = \frac{14776.97}{1/12(3)2\,(303\text{-}30)}$$

W= 0.731

A Kendal's rank correlation of 0.731 was measured which indicates a strong concordance between the responses of the contractors, consultants and the district assemblies in terms of their choice of the factors that affected the cash flow of contractors who undertook construction projects.

Finally, in order to prove the authenticity of the above analysis, a test of hypothesis using the Chi square distribution was used. At 95% level of significance, using the relationship:

H_o= there is a disagreement between the three groups in ranking the factors that affect the cash flow of Contractors,

H_1= there is no disagreement between the three group in ranking of factor that affected the cash flow of contractors

At 95% level of significance, using the relationship:

X2 = k (N-1) w

X2 = 3(30-1) 0.731

X2 = 63.55 >45

Where N-1 indicates the degree of freedom. At the chosen level of significance, the decision to accept or reject the null hypothesis is based on the largest value for the acceptance read from the Chi-square tables. The largest value for the acceptance of the null hypothesis is 45. The null hypothesis is therefore rejected, implying there is agreement between the three groups.

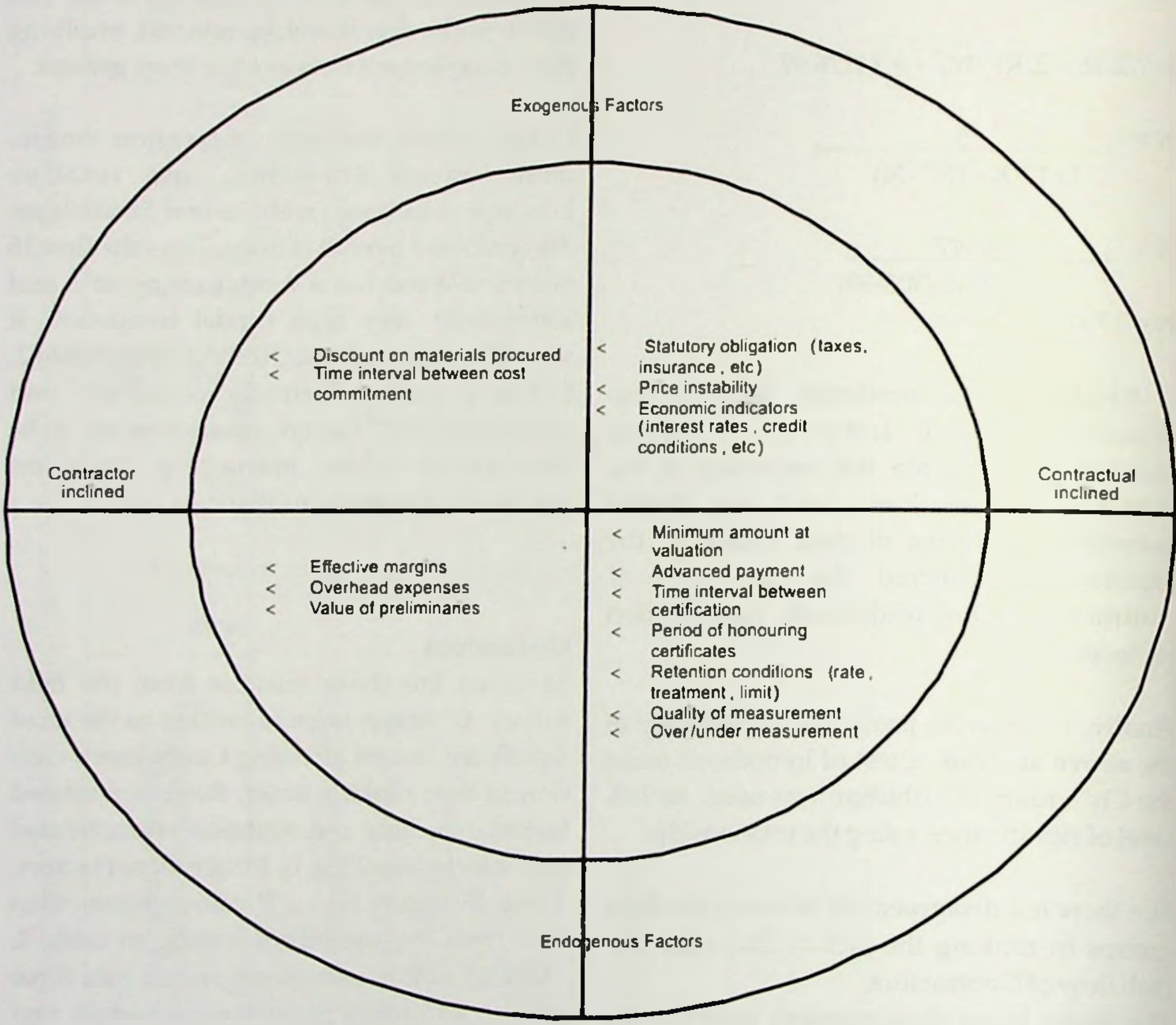
Using central tendency dispersion (mean, mode, mean deviation, and relative importance indices), table 5a and 5b analyses the combined overall ratings. Thus the first 15 factors selected has a modal rating of 3 and above with very high modal frequency. It would be observed that findings from table 2, 4 and 5 were coherently consistent and revealed 15 to 17 factors are significant, to be considered when managing cash on construction projects in Ghana.

Discussions

Based on the above analysis from the field survey, 17 factors were identified as the most significant factors affecting Contractor's cash flow in their ranking order. Retention related factors (rate, limit and treatment) were treated as one factor resulting in 15 significant factors. These 15 factors had a P-value greater than zero from the significant testing in table 4. These 15 factors were re-organised into three generic groupings: monetary, schedule and general factors based on essential characteristics of the factor.

A critical review of the conceptual cash flow factors in figure 1 indicates that factors can be classified as endogenous or exogenous factors. Endogenous factors are perceived to be directly within the control and purview of the project domain. These can be initiated, influenced or controlled by the the contractor or the client through the contractual terms impliedly inserted by his authorized representative. These Endogenous factors are depicted in quadrant 3 and 4. Factors depicted in quadrant 3 are directly controlled by the client or contract conditions and are beyond moderation of the contractor.

Figure1:Factors affecting contractor's cash flow



Source: Authors' Construct

Factors depicted in quadrant 4 are endogenous factors within the control of the contractor during tendering. A realistic assessment of these costs by the contractor goes a long way to enhance his cash flow during the construction stage.

The model further classifies factors beyond the domain of the contractor and the client as exogenous factors. Exogenous factors in quadrant 1 can however be negotiated by the contractor to result in enhanced cash flow factors. These directly result from procurement of materials and arrangement with creditors. Arrangement can be made with creditors and plant hirers to extend the debt conversion period resulting in using decreasing cash outflow and using existing scarce resources for immediate pressing procurement which cannot be credited.

Cash flow factors in the second quadrant are exogenous in nature and beyond the control of the contractor and client rather initiated by the current economic indicators. These factors such as inflation, price instability and economic indicators are dictated by the local and global economic conditions. Though some of the factors are exogenous and endogenous, these factors can further be classified generically as monetary related, schedule related or general factors based on characteristics of the factor and its direct effect on the cash flow of the contractor. Knowledge about these factors enables the contractor plan for possible difficult times ahead of the construction process.

Conclusions

Since the nature of the construction industry makes the operation in the industry such that firms work on their given projects to an appreciable level for later reimbursement of the work done based on the terms of the contracts, the economics of project has to be critically studied to prevent capital lock-up. Most contractors working on construction projects in Ghana suffer seriously from liquidity and cash flow problems. The effects of the above cash flow problem result in undue delay in project completion with its rippling effect of construction cost and time overruns. The above situation is compounded when such projects are fixed price in nature without fluctuation as part of the contract. The knowledge of the economics of a project at the pre-contract stage is critical to deciding whether or not to tender and to ensure an efficient cash flow management at all times during the contract period. In most developing countries like Ghana the government is the major financier of infrastructural projects saddled with the average annual budget deficit of about 8-12%. This situation makes all national projects scramble for the limited national resource available making it very difficult for contractor's cash flow problems to be solved.

Based on the above study, it has been observed that the very important factors that affect the cash flow of contractors on construction projects can be categorized into exogenous and endogenous factors with some factors directly influenced by the client, others influenced by the contractors and others influenced by the global economic conditions. There is hence the need for both the client and the contractor to balance the exogenous and endogenous factors to manage the challenges resulting in cash flow deficit. The client through his authorized representative must endeavour to minimise the extent to which conditions in quadrant 3 are flouted such as under measurement, errors in measurement, delay in releasing retention, extensive delays in honouring certificates and erroneous floor limits for valuation. This enables the contractor live up to expectation and makes his business more profitable.

The contractor, at the tendering stage should endeavour to use realistic margins deduced through risk analysis, properly assessed preliminaries and overheads expenses since a poor assessment of these factors affect his cash flow situation.

Limitations

The research is a preliminary exploratory study that highlights issues concerned with the cashflow of a contractor. Primary data collected was practically limited to building construction project information from two stratified regions in Ghana (Ashanti and Brong Ahafo regions) based on the dominant traditional procurement method in Ghana.

REFERENCES

A.A. Kwakye, (1997), "Construction Project Administration in Practice". *Addison Wesley Longman Publications, UK, First Edition pp187-188.*

Ashworth A.A., (1995), "Cost Studies in Building", *Longman Publication, UK. Second Edition, pp 304-308.*

Chen, Mark T., (2007), "ABC of Cash Flow Projections", *AACE International Transactions, PM. 02.1-PM.02.5*

Hohouabu Kwadzo (2005) "Construction Cash Flow Prediction, the Formulas Approach", Journal of the *Ghanaian Surveyor, 2005, Issue 1*

Kaka, P., (1995), "Towards a More Flexible and Accurate Cash Flow Prediction". *A Published Journal in Construction Management and Economics, Vol 14, pp 35- 44*

Kenly R, R, and Wilson, O.D. (1989),, "A Construction Project Net Cash Flow Model", ***Journal of Construction Management And Economic, Vol 7, pp 3-18***

Kish, L., "Sampling Organisations and Groups of Unequal Sizes", *American Sociological Review, Vol. 20, 568-572*

Navon, R (1982), "Company Level Cash Flow Management J of Construction". *Journal of Engineering and Management. - ASCE*

Navon R., (1995), "Resource based Model for Automatic Cash Flow", *A Published Journal in Construction Management and Economics, Vol 13, pp 501-510.*

Park K. Hyung, Seung H. Han, Jeffery S. Russell (2005), "Cash Flow Prediction Model For General Contractors Using Moving Weights Of Cost Categories", *Journal of Management in Engineering, ASCE, 072-597X pp 164-172*

Pandey I.M. (2002), "Business Finance", ***Vikas Publishing house PVT, India, first Edition***

Peer, S., (1992), "Application of Cost-flow Prediction Models". *Proceeding of the American Society of Civil Engineers, Journal of the Construction Division*, Vol 108, no CO2, June.

Russell J.S. (1991), "Contractor's failure": *Analysis J. perform Constr. Facility.*, 5(2), 163-180

Sears. G., (1981), "CMP/COST: An Integrated Approach", *Journal of the Construction Division, Proceedings of the American Society of Civil Engineer, 107 CO2.*

Singh, S. and Lakanathan, G., (1992), "Computer-based Cash Flow Model", *In Proceedings of the 30th Annual Transaction of the American Association of Cost Engineers-AACE, WV, USA, No. R.5.1-R.5.14.*

Xuequing Zhang, (2005), "Critical Success Factor for Public- Private Partnership in Infrastructure". *Journal of Construction Engineering and Management, Volume 131, Issue 1, pp 3-14*

Dr John McManus and Dr Trevor Wood-Harpe http://www.bcs.org/content/ConWebDoc/19584, Accessed: 1st October 2011

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THE APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN HOSPITALS AND CLINICS IN THE ACCRA METROPOLIS

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Abstract

Ghana has witnessed a proliferation of Information and Communication Technologies (ICT) since 1990. There is now mounting evidence that ICT can be used to facilitate various aspects of socio-economic development process in the world. Ghana adopted an ICT policy in 2003 that acknowledges the social and economic issues affecting the various sectors of the country.

The study covered both public and quasi-government facilities in the 13 sub-metropolitan areas of the Accra Metropolitan area in the Greater Accra Region of Ghana. Data was collected mainly through the use of questionnaires (Questionnaire of Dakubu, and Adomako-Owusu (2002) were modified) which elicited from the Hospital Managers, Administrators and Medical Officers-in-Charge of the selected hospitals and clinics the state, use and application of ICT in their various facilities. The questionnaires were pre-tested before administration. The data was analyzed using SPSS Ver. 11. The study revealed that the Health facilities are not yet completely committed to the deployment of ICT.

There are no strategic plans in place in most of the facilities for the deployment of ICT; even those facilities that have deployed ICT have not aligned it with their business strategies.

The study also revealed that budgetary allocation for ICT in most facilities is below 10% of their total expenditure. ICT has made some impact in the facilities in which it has been deployed. Some recommendations were given.

Keywords: Hospitals, ICT, Accra Metropolis, Computers, Strategic plan, Clinics, Assessment

INTRODUCTION

Information and Communication Technology (ICT) involves the use of diverse set of technological tools and resources, to create, disseminate, store, and manage information and to communicate. The computers, software, networks, satellite links and related systems that allow us to access, create, analyze, exchange/communicate and use data, information and knowledge, all together form what can be described as ICT.

ICT is now ubiquitous and not the monopoly of any specific organization. In recent times the health sector has seen an increasing use of

ICT in almost all facets of health service delivery. This development is taking place largely in an environment in which the infrastructure for the deployment and use of information technologies remain either weak or uncertain. Among the many weaknesses in ICT infrastructure development is the unreliable domestic electrical power supply, lack of well developed national infrastructure, inadequate level of computer literacy, computer density, and an underdeveloped telecommunication infrastructure. These limitations are especially pronounced in the rural areas where the need for health services is strongest. (Ghana Health Policy Document, 2000).

This situation was emphasized by Hersh (2003) that, "we are in the era of uncontrolled health care cost, compromised patient safety, and a lack of utilization of information technology applications that have the potential to improve the situation".

The role of ICT in Health Delivery

ICT is increasingly being deployed to facilitate the delivery of health services in a number of countries. These technologies are providing a number of opportunities to facilitate the modernization and operations of the health delivery system in Ghana, to improve access to the nation's limited health facilities and resources and to provide access to health information and other services to a wider section of the community. In health, ICT can play a significant role generally by providing opportunities for individuals, medical professionals and healthcare providers, to among others obtain information, carry-out research, communicate with -colleagues/professionals, deliver first-line support, especially where distance is a -critical factor, administration and management, and promote preventive medicine programmes. According to WHO, the use of ICT in health is not merely about technology (Dzenowagis, 2005), but a means to reach a series of desired outcomes: health workers making better treatment decisions ,hospitals providing higher quality and safer care , people making informed choices about their own health , governments becoming more responsive to health needs ,national and local information systems supporting the development of effective, efficient and equitable health systems, policy makers and the public aware of health risks , and people having better access to the information and knowledge they need for better health.

The use of information and communication technology in health institutions and hospitals in Ghana is growing steadily, due to the increasing awareness of ICT benefits to healthcare. A majority of these ICT interventions are used for hospital administration and to mitigate the perennial revenue leakages. The distribution of ICT usage in health institutions is skewed towards the urban centres, where there is constant and reliable electricity. Internet connectivity is readily available in most hospitals in the urban centres, due to the increasing level of internet penetration in Ghana which was estimated to be about 4.2% as of 2009[1]. Telemedicine projects are being undertaken in some hospitals in Ghana such as the Komfo Anokye Teaching Hospital in the Ashanti Region. The

[1]Internet Usage Statistics for Africa, http://www.internetworldstats.com/stats1.htm#africa

National Health Insurance Scheme is currently connecting hospitals nationwide to its network to facilitate the sharing of information between the secretariat and the hospitals. The country is yet to implement a national health information system as pertains in other countries; however there is a District Health Information System in place. The system has been deployed to capture information on Tuberculosis (TB) at the district level. Though the use of information and communication technology is fragmented and there is no national policy on e- Health, the government and the Ministry of Health are actively undertaking measures to ensure the healthcare system benefits from e-health. The government is working on a number of policies and strategies to support e-Health, through the development of infrastructure for the health sector which is being supported through intersectoral and non-governmental assistance. In the area of knowledge and information acquisition, health professionals have had access to online international journals since 1998, while work is underway to provide access to national electronic journal and bibliographies of health[2]. Ghana's Information and Communication Technology for Accelerated Development (ICT4AD) policy, has about fourteen pillars of which the Promotion of Health using ICT is one. The broad goals of the policy in relation to health, is promoting telemedicine and integration of ICT within health programmes with special emphasis on education, training and preventive detection (Kirigia et al ,2005). The Ministry of Health has also put in place a Health Sector ICT Policy and Strategy which stipulates a set of actions which have to be undertaken within a period of 5 years. The policy document sought to leverage on the benefits of ICT to influence health outcomes, put in place structures for a national health information network which the country lacked and to achieve health sector objectives (Kirigia et al ,2005).. The commitment of the government and the Ministry of Health to e-health is encouraging; however the adoption rate has been low. In July, 2010, the Government of Ghana also launched the national e-health strategy (ECOSOC, 2009). The key strategies under the national e-health strategy are Streamlining the regulatory framework for health data and information management, Building sector capacity for wider application of e-health solutions in the health sector, Increasing access and bridging equity gap in the health sector through the use of Information and Communication Technology, and keeping paperless records and reporting systems. To that effect this research hopes to interrogate the issues confronting e-health implementation in Ghana.

In the words of the Secretary General of United Nations Economic Commission for Africa (UNECA) at the Bamako Conference of the African Information Society Initiative (AISI), Africa is at an early stage of using ICT to improve the delivery of health care. According to him, the investments in the health sector could complement basic health services through enhancement of administration, access to information and decision-support systems for curative and preventive health and improved distribution of medical supplies.

[2] Global Observatory For eHealth, WHO African region,www.who.int/entity/goe/data/country_report/gha.pdf

Key areas of possible applications of ICT in health delivery include; the implementation of telemedicine systems; the development of health information and management systems Afari-Kumah (2005); the deployment of ICT to facilitate the spread of health and medical services to rural and under-served areas; the use of ICT to support medical education and training, among others. Other possible areas of application of ICT in health care delivery identified by Chetley (2006), included : telemedicine providing benefits of resource coordination, urban/rural linkages and connecting remote health staff to centralised health expertise and resources, Incorporating already existing technology – such as phone or email – into medical practice and routine consultancies can make a difference. there is strong potential for e-learning in health as demonstrated by a variety of successful small projects around the world, and multiple ICT routes can, and are, being used for e-learning in a mixed toolbox approach (for example: Internet, radio, SMS, PDAs and combining with print).

E-health is the new "kid on the block". According to Yamuah (2005a), it is the application of the Internet and other related technologies in the health industry to improve access, efficiency, effectiveness and quality of clinical and business processes utilized by healthcare organizations, and practitioners, to improve the health status of patients. Yun et al , (2010) identified four critical pre-requisites for any successful e-health initiative and these are ICT architecture/infrastructure, standardized policies, protocols and procedures, user access and accessibility policies and infrastructure, and finally government regulation and control.

In the area of public health information, it is acknowledged that ICT can be used to facilitate the collection, analysis and the dissemination of information to support health education and awareness creation, communicate with professionals, deliver first-line support, especially where distance is a critical factor as well as for supporting decision making related to heath and population-wide issues. For these reasons, Ghana would benefit a lot from using ICT to improve healthcare.

First and Clinton (2004) noted that by using advances in technology, we can put the right information in the hands of doctors and patients at the right time. We can empower patients, health care providers and health care purchases to make better choices.

Purpose of this Study

The main objective of the study was to assess the state of use and application of ICT in hospitals and clinics in Ghana. Specifically, the study aimed at:

- Identifying the various information systems in the Clinics/Hospitals;
- Finding out to what extent ICT has been introduced and used in healthcare delivery;
- Identifying priority areas that have benefited from the deployment of ICT;
- Evaluating the appropriateness of the existing ICT applications in clinics/hospitals based on impact and effectiveness on the delivery of health services delivery; and

- Determining the facilities which have done better in the use of ICT for health delivery.

Significance of the Study

- The results of the study would be useful to Health Managers (public/private), Non governmental organisations involved in healthcare delivery, and policy makers in health and related sectors of the economy. It would be of immense benefit to ICT specialists, health education and research institutes, development partners and the donor community.

- In addition, the results from the study would greatly enhance the implementation of the policy objectives and strategies outlined in both the Ghana's ICT for Accelerated Development (ICT4D) policy document for the promotion of ICTs in national health and the Ministry of Health's ICT Policy document as well as the Millennium Development Goals: 3 - promote gender equality and empower women; 4 - Reduce child mortality; 5- Improve maternal health; and 6 - Combat HIV/AIDS, Malaria and other diseases; The study would also contribute to the knowledge base on Health Informatics in Ghana.

Methodology and Scope of Study

The study was carried out in hospitals/ clinics (public, quasi-government) in the 11 Sub-Metros of the Accra Metropolitan Assembly[3] in the Greater Accra Region of Ghana. The sub-metros are La, Ayawaso East, Ayawaso West, Ayawaso Central, Osu Klottey, Okaikoi North, Okaikoi South, Ablekuma North, Ablekuma South, Ablekuma Central, and Ashiedu Keteke. The study population was all public and quasi-government health facilities in the Accra Metropolis. All the facilities (25 public/quasi-government) in the Metropolis were stratified according to the 11 Sub--Metros into public facilities. Twelve (12) public hospitals and polyclinics were further purposely selected because this stratum comprises teaching/tertiary, regional, district, military, police and children's hospitals, which are one of a kind in the metropolis. The public clinics health centres were selected as follows; the first sample in these strata was obtained by simple random sampling and the subsequent samples through systematic random sampling method.

Data were collected mainly through the use of questionnaires from the Hospital Managers, Administrators and Medical Officers-in-Charge of the selected hospitals and clinics. The questionnaires were pre-tested before administration. The data was analyzed using SPSS Ver. 11.

Problem Statement

It is an acknowledged fact that ICT can provide a direct benefit to health delivery primarily by increasing access to medical and health care. This role of technology in health has been summed up in the Alma-Ata Declaration of 1978 which states that: "Primary health care is an essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible and at a cost that

[3]http://www.ama.gov.gh/ama/page/5052/sub-metro

the community and the country can afford to maintain". Fortunately, ICTs is evolving rapidly and the cost of both equipment and use is falling.

The growth in use of the Internet continues to be exponential and many countries now recognize the importance of telecommunication for social and economic development. Consequently, significant investments have been and are being made in telecommunications to extend and improve networks at both local and international level.

The lack of a clear ICT policy and strategy in health delivery has created a situation where past initiatives have either failed to meet their objectives and did not address priorities in the health sector or were incompatible to systems and management culture of the sector. In other instances, there were duplication of efforts and inefficient use of scarce resources in procurement and deployment of ICT in the health sector.

The demand for improved use of technology will continue to increase from both user and supplier perspective. But more importantly, the performance of the health sector will depend on the extent to which these resources are effectively deployed in the face of limiting resources and the pursuit of greater decentralized decision making in the sector. There is therefore the need for the Ministry of Health to provide a policy framework to guide the acquisition and use of ICT to support the realization of health sector goals and objectives. (Ghana Health Policy Document, 2000).

Pastore (1999) reveals that a study by VHA, Inc., shows that the use of Internet by clinical and support staff in US hospitals increased dramatically in 1998. On-line access has more than doubled in the past year among 16 hospital employees groups included in the survey, VHA, Inc. found. The greatest increase was among staff physicians, where Internet Access jumped from 28% to 82% in the last 12 months. The majority of hospital staff members and physicians, 80 percent or more in most cases, are now connected to the Internet, according to the survey. How do these results compare with their counterparts in developing countries such as Ghana?

In addition, there is a general lack of adequate research to assess the use and application of ICTs in health delivery in Ghana. This study is therefore critical to the successful implementation of the National Health Insurance, which is being implemented across the country and the effective adoption of e-health in Ghana. There is no robust and reliable statistics confirming the computer usage in the health delivery. This study will provide this statistics.

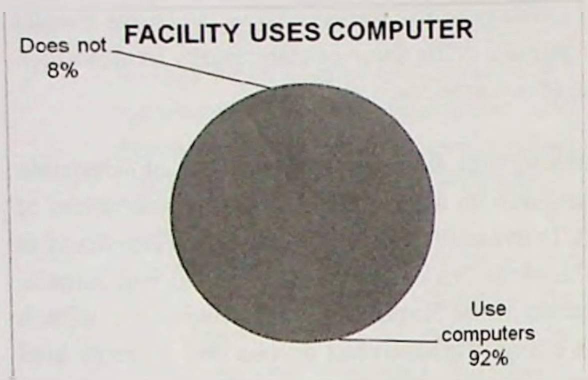
Findings

Data were collected from the following hospitals/Clinics: 37 Military Hospital, Accra Psychiatric Hospital, Achimota Hospital, Ghana Police Hospital, La General Hospital, Maamobi Polyclinic, Mallam Atta Market Government Clinic, Nima Government Clinic, Parliament Clinic, Princess Marie Louise Children Hospital, Ridge Hospital, and the University Hospital, Legon.

A high proportion, 58.3% of the Health facilities had staff above 200 personnel, while 25% had below 50, and 8.3% each had staff between 50 and 100, and 101 and 200 personnel respectively

With regard to the use of computers, majority of the health facilities, 92% used computers to support their activities, but only 8% did not use computers to support their activities (Fig. 1).

Fig. 1: Facility uses computers to support its activities and operations



Source: Field Survey

In a follow up visit recently to some of the facilities interviewed earlier, it was observed that while some of them, have their share of computers, they are primarily used for accounting and administration. Some Doctors however have access to computers.

Twenty five percent each *of* the facilities visited indicated that ICT was first deployed in the years 2000, 2001 and 2003 respectively. Whereas 16.7% claimed it was first deployed in 1999, only 80.3% indicated that it was first deployed in 2002. Of the Health Institutions which had computers, the majority (58.3% *or* 7) indicated that their computer system was made up *of* stand-alone computers; while (47.1% or 4) reported that they had a local area network (LAN) computer system. One or 8.3% had no computer.

Of the Health Institutions involved in the study, majority *of* them (58.3%) reported as having below 10% *of* their staff that use computers to support their work. Twenty-five percent indicated that 0% *or* none *of* their staff used computers, while only 16.7% reported that about 25% *of* their staff used computers. The results showed that whereas 58.3% *of* the respondents indicated that they use. ICT *for* Communication, most *of* the respondents, 25% use ICT *for* evidence based medical information, while 16.7% use it *for* all three i.e. consumer health information, evidence based medical information and communication. According to Chetley (2006), ICT have potential roles to play in improving communication around health. They point out that as there is growing evidence that ICT aid health information dissemination, particularly via online routes, there is growing evidence that ICT increase the effectiveness of some communication systems, through the provision of increased communication access, more people are 'linked in' to communication opportunities, mass media ICT, such as radio, remain key aspects in communicating about health, there are demonstrable benefits in combining technologies, particularly older with newer ICT, health information via the media should not be rushed, as it is still constrained by traditional restricted of communication strategies. Only 8.3% .*of* the respondents use ICT *for* diagnostic expert systems. On Information Management, 58.4% *of* the respondents indicated that they used ICT *for* Electronic Medical Records Management, while 33.3% used it *for* General Administrative work.

Current data reveals that, in a few hospitals, implementation of electronic medical records is underway, starting with the billing process.

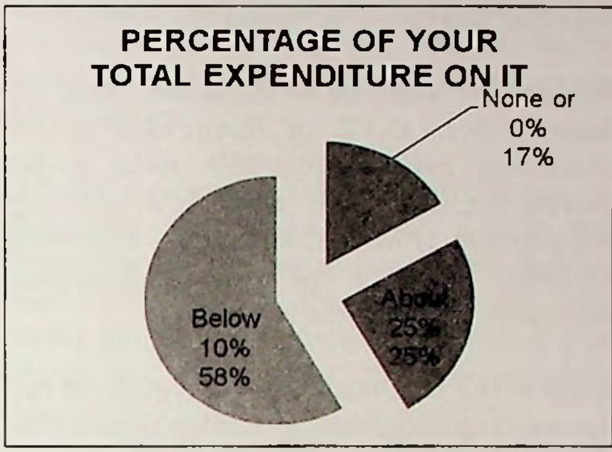
But medical records are mostly stored as paper medical cards, sorted by date of last visit. Records are often lost, and rarely referred to on a later visit.

Seventy-five percent (75%) indicated that they used the Microsoft Office Suite, while 8.3% each *of* them also indicated that they had been using Health ware, and Kpeshie Metro software, respectively.

Majority of the respondents (83.3%) indicated that they did not have IT Units. However (16.7%) stated that they had IT unit. Of the Number who indicated that they had IT unit, 8.3% each of them indicated that they had a support staff of below 10% and about 50%, respectively. They also indicated that about 25% of the staff of the entire hospital was computer personnel/staff. Some of the professionals mentioned included Programmer/software developers and system administrators.

Expenditure on information technology resources including training and maintenance of IT equipment and system did not constitute a major component of the total expenditure of health institutions. The study revealed that, as high as 58.3% of them spent less than 10% of their total annual budget on IT, while 25% indicated spending close to about 25% of their annual budget. This corroborates the findings of INIIT (2000). However, (16.7%) did not make any budget for IT (Fig. 2).

Fig. 2: Percentage of your total expenditure on IT



Source: Field Survey

Of the health facilities surveyed, only 41.7% had Internet access whereas 58.3% did not have access (Fig. 5). According to 16.7%, of the respondents, it was only one computer in the facility which is connected to the Internet. 8.3% each mentioned two, five and eight computers respectively. 58.3% was recorded in those facilities that did not have computers at all. Africa online is the Internet Service Provider for 25% of the facilities while Third rail and the Parliament of Ghana provides Internet access for 8.3% each of them respectively.

33.3 % of the respondents claimed they had one server but 8.3% claimed -they had two. Majority of them, (58.3%) did not have a server. Most of them, (25%) had dial-up access via local ISP. Only 16.7% have access via Radio/Wireless. The bandwidth of their Internet connection for 33.3% was less -than 40kbps while that for 8.3% was 64kbps.

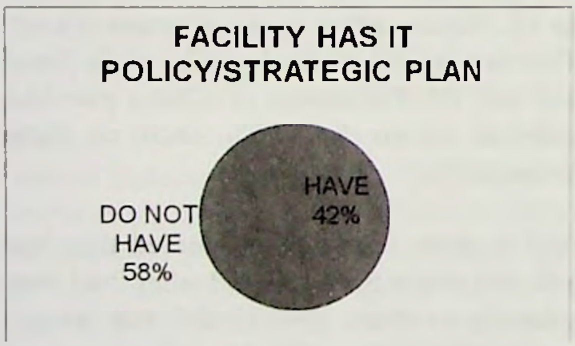
On the whole, Internet usage within the health facilities is not wide spread among their staff.

Of the facilities which participated in the study, about 58.3% indicated that 0% or none of their staff used the Internet. Only 41.7% reported that below 10% used the Internet.

Relating to what the facilities are using the Internet for, 41.7% of them used it for electronic mail, while 25% used it for Accessing the web and downloading information. However, 33.3% do not have the Internet. None of the facilities surveyed owned a web site on the Internet.

Most of the facilities, 58.3% surveyed do not have an IT policy, strategy or plan to guide the deployment and exploitation of ICT to support their activities and operations. Only 41.7% claimed they have one in place (Fig. 3). 16.7% each of those who have a policy stated that the horizon for the ICT strategy was two years and three years respectively. Only 8.3% indicated that it was five years.

Fig. 3: Facility has an IT policy/strategic plan



Source: Field Survey

8.3% each of them indicated that Project Management Team was taken into consideration minimally, extensively and importantly before the implementation of the ICT project. 75% of them did not respond to these questions.

Whereas 16.7% greatly considered resource planning before the implementation of the ICT project, 8.3% claimed they considered it extensively. A quarter of them, 25% also reported that they greatly considered Staff Training before the implementation of the ICT project whilst 8.3% only considered it minimally. Two percent each of them reported that they respectively considered the benefits to realize from implementation the ICT project, greatly and extensively. 66.7% however did not consider this before implementing the project.

Similarly, two percent each of them reported that they respectively considered the Organizational Impact of ICT before implementing the ICT project, greatly and extensively. Almost 66.7% of them did not answer the question. On Post Implementation Review Process, 16.7% claimed they greatly considered it .before implementing the ICT project but 8.3% considered it minimally. However, -75% however did not consider it.

According to half of them, 6 or 50%, they developed the ICT infrastructure from their Internally Generated Funds (IGF) whereas a quarter or 3 indicated that it was from Government of Ghana Sources. Only 8.3% or 1 claimed it was from Donor- 8' Funded projects. 16.7% or 2 have not developed an ICT infrastructure. Half of them, 50%, their major expectation for implementing the ICT projects were to shorten response time to customers (patients) whilst 33.3% indicated that their intension was to improve quality of service.

Whereas majority 58.4%, claimed ICT had not facilitated organizational flattening in their facility. 41.7% indicated that it had facilitated it. When asked further to indicate the extent to which it had been facilitated, they indicated that it had facilitated appreciably.

Similarly, majority 83.3%, claim ICT has not facilitated the significant use of self- directed teams in their facility, but 16.7% indicated that it has facilitated it. When asked further to indicate the extent to which it facilitated the significant use of self- directed teams in their facility, all the 16.7% said it has minimally.

Another observation was that majority 83.3%, claimed that ICT has not facilitated the span of control in their facility but 16.7% indicated that it has facilitated it. When asked further to indicate the extent to which it facilitated the span of control in their facility, all the 16.7% said it has appreciably.

Majority 58.3%, of the facilities indicated that ICT has not facilitated decentralization of decision making, but 41.7% claimed it has facilitated it. Only 25% or 3 of the number, who owns ICT systems and answered yes, indicated that it has facilitated decentralization minimally. According to 58.4% of the respondents, performance measures have changed in the facility as a result of the introduction of ICT. The rest do not have ICT systems in place.

On management of the facilities, 66.7% of the respondents indicated that ICT has helped them immensely but 33.3% indicated that it has not. Of the number who answered yes, 25% or 3 indicated that the extent was minimal whilst 41.6% or 4 claimed it was appreciable. Seventy- five percent of the facilities have identified their major area of investment in ICT as Computer Hardware and Software. A quarter of them have not invested in either of these.

When asked to rate the level of computer resource utilisation in their facility, half of them, 50% indicated that it was below 10% whilst 16.7% each them rated it was about 50% and about 25% respectively. Another 16.7% could not rate their utilisation since they do not own them.

On the percentage of the operations, or activities of their facilities which are supported by the use of computers, half of them, 50% indicated that it was below 10% whilst 16.7% each of them stated that it was about 50% and about 25% respectively. Another 16.7% do not own computers.
Some of the IT related problem areas which apply to their facilities included Problems relating to after sales (41.7%), and High cost of computer products and services (8.3%). Half of them do not encounter any problems which are IT related.

Some of the reasons given for investing in ICT included to facilitate their work and its necessity in certain areas such as National Immunisation Delivery (NID), and National Health Insurance Scheme (NHIS) which require specific software, speed of work, ease of work, ease of sourcing information, to facilitate administration, management and improve clinical care, to improve on the quality of health care delivery, to improve the capture of patient health records, link various services to treatment and streamline the manual capture of health statistics for planning and billing of clients after the provision of services, to improve upon efficiency and effectiveness of operations and consequently quality of health services, to improve upon patients care and also as a result of the University's ICT Policy, and to make their workload lighter.

Conclusion

Results reveal that the Health facilities are not yet completely committed to the revolution of the ICT and remain until now anchored in the old ways of doing work manually. This lack of initiative is primarily explained by the fact that the introduction of these new technologies requires investments including development of human resources which the facilities do not feel yet ready to provide. Therefore, the facilities are to improve their informational capacities.

Benefits of ICT to health care delivery cannot be overemphasised. The main conclusion of these studies (OECD (2003), DFID (Marker, et al, 2002), the World Bank (2003), and SIDA (Greenberg, 2005) is that ICT, when incorporated effectively into development programmes can be useful tools in efforts to reach the MDGs. Thus, the challenge of meeting the targets of the MDGs requires ICT support in health.

Recommendations

The challenge of the 21st century for developing countries cannot be overemphasized. There is the need to catch up with the western world in all areas of technological advancement. The following recommendations are therefore suggested:

- All facilities should put in place the necessary mechanism to develop an IS Strategic plan which should be aligned with their strategic plan.
- Steps should be taken by the facilities to acquire computers through their Internally Generated Funds (IGF)
- The Ministry of Health/Ghana Health Service policy for ICT deployment in the Health Sector should be adhered to
- Adequate training should be given to Officers handling computers in the facilities.
- Information Technology Support units should be established in the facilities to attend to technical problems.
- Decision and management support systems should be developed.
- Facilities should be encouraged to develop web site and have electronic mails for information dissemination and communications purposes.
- Use of ICT is at rudimentary level in some of the facilities surveyed. There is the need to plan and grow the use of ICT in the Hospital. Integrated information system should be deployed to allow efficient management of the NHIS including uniform bill system, portability and claims management.
- ICT projects implemented in the Health sector should be implemented
- ICT should be aligned with Health care delivery in Ghana

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REFERENCES

Afari-Kumah, E (2005). Developing a Patient Data Mining System for the University of Ghana Hospital. A Dissertation Presented to the University of Ghana Business School in partial Fulfillment for the award of an MBA degree (Management Information systems Option). *Unpublished.*

Chetley , A.(2006) eds. improving health, connecting people: the role of ICTs in the health sector of developing countries. A framework paper. Infodev.org. retrieved on 18th August, 2011

Dakubu, M and Adomako-Owusu, B (2002): Information and Communications Technology Development Strategy Plan in the Tertiary Education Sector in Ghana. A study Project Commissioned by NCTE. Adwinsa Publications, Legon-Accra.

Dzenowagis, J. 2005. Connecting for health: global vision, local insight. Geneva: WHO

Frist, B. and Clinton, H. (2004): How to heal health care. Washington Post. August 25, 2004.

Ghana Health Policy Document, 2000 Retrieved from http://www.GhanaHealthservice.org on August 25, 2006

Greenberg, A. 2005. ICTs for Poverty Alleviation: Basic tool and enabling sector. Stockholm: SIDA

International Institute for Information Technology (INIIT) (2000). The Ghana SCAN-ICT Pilot Project. www.uneca.org/.../ScanGhana/.../Ghana%20Scan-ICT-Phase%201-Summary%20Report.pdf *retrieved on 13th September, 2010.*

Kirigia J et al (2005). E-health: Determinants, opportunities, challenges and the way forward for countries in the WHO African Region. BMC Public Health

Marker, P., McNamara, K. and Wallace, L. 2002. *The significance of information and communication technologies for reducing poverty.* London: DFID http://www.dfid.gov.uk/pubs/files/ictpoverty.pdf

OECD, 2003. How ICTs can help achieve the Millennium Development Goals. Paris: OECD http://195.218.115.39/pport/pdf/417763324.pdf

Pastore, M (1999). Hospital staffs Increase Internet Use. Article retrieved from www.clickz.com/stats/sectors/healthcare/article.php/255641 on 14th June, 2005

The Ghana ICT for Accelerated Development (ICT4D) Policy, June 2003

United Nations Economic and Social Council (ECOSOC). Africa Regional Ministerial Meeting Background Paper. 2009; Retrieved 15th September 2009, from www.un.org/ecosoc/newfunct/pdf/ghanaBackgroundNote.pdf

World Bank 2003. ICT and MDGs: A World Bank Group perspective. Washington, DC: World Bank

Yamuah, K.L (2005b): Towards healthy nations with ICT wealth, May 1, 2005 Issue-MDGs 4 & 5 (Reduce child mortality and Improve maternal health. Retrieved from www.i4donline.net on 25/08/2005

Yu Y, Huang W, Seitz J and N Wickramasinghe (2010). Evaluation of e-Health in China. 23rd Bled eConference. eTrust: Implications fro the individual, Enterprises and Society. June 20-23, 2010; Bled, Slovenia

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A BEHAVIOURAL APPROACH TO UNIVERSITY BRANDING: AN EXPLORATORY STUDY

Mathias Akotia

Abstract

Branding of universities is attracting increasing attention, as educational organisations strive to succeed in a more competitive environment. Though many universities are now adopting branding, which is operationalised as conscious development and management of the university's identity, there is little literature and research on university brands, and how they can be created and managed. This contribution explores the subject of university branding as a means of generating sustainable competitive advantage. This article concludes that success in a competitive environment will depend on effective brand differentiation based on the identification, internalisation, delivery and communication of unique brand identity that appeals to both internal and external stakeholders. Based on in-depth interviews conducted among industry experts and university administrators in Ghana, a conceptual framework is proposed for university branding, through behavioural management.

Article type: Explorative Study.
Key words: University brand and branding, Internal branding, Competitive identity, Compelling image, Competitive advantage.

INTRODUCTION

The perceived dynamism of a country is judged not by its history, its monuments or its cuisine, but by its brands, in particular, brands that evoke attraction, modernity and intellectual power (Kapferer, 2007). The reputation of any country in recent times is associated with the image of its centres of intellectual excellence: its universities, its research centres, and its entrepreneurial and innovative organisations.

The university is no longer just an institution of higher learning but also a business (Bunzel, 2007). As a business, the university must be driven by a competitive identity, an identity that will enable it design, create, deliver and communicate superior value. Today, greater competition exists among universities, in attracting the best and brightest students and faculty members, the most rewarding consulting businesses, executive programmes and funds from donors and financiers who are either inundated with requests and or need funds injection themselves. Branding in universities has become an increasingly significant issue with several universities committing substantial financial resources to branding activity (Chapleo, 2010).

Some believe that if you announce the start of a branding programme and do a few ads, growth and improvement will come. However, competing to win for universities is about powerful and imaginative strategy, more a product of intellectual than financial capital. Competing to win is also about strategy focus and consistent investment in university growth drivers. Competing to win must be about a particular mind-set and set of behaviours that are appealing to internal and external stakeholders (Burmann, Zeplin & Riley, 2009). It is only when a university's members have a shared mental model of their brand (common vision and shared values) that is consistent brand supporting behaviour is possible. Because culture is unique and difficult to imitate, culture must also become the enduring essence of the university brand.

Brands are about choice and education service providers now have to compete in a fast becoming overcrowded market-space. Many universities therefore have had to continually search for what makes them special to many people and how they can continue to innovate and meet these consumer needs and wants better than competition. They know that education service customers have choices, and that if the benefits of university service offers are not readily apparent and consistently delivered, the consumer will choose something else (Brymer, 2003).

Although university branding is now receiving increasing academic attention, this has largely been limited (Chapleo, 2010). The intangible nature, diversity and complexity of university products, services and faculties present several challenges for branding. It is therefore imperative that research and discourses are provoked to help address the university branding challenges.

This study aims at unearthing the key factors, people and processes involved in university brand creation through in-depth interview of brand and industry experts as well as university administrators. This contribution seeks to address the following questions:

1. How does the university brand create value for the consumer?
2. How does a university brand create value for the institution?
3. What are the success factors for university brand creation?
4. What behavioural processes are involved in university brand creation?

This contribution explores the subject of university branding as a means of generating sustainable competitive advantage. The paper continues with literature review on brands, the research method, presentation and discussion of findings and suggestion of a conceptual framework for university branding.

Brand: A name with the power to influence buyers

Through burning, early man stamped ownership on livestock, and with the development of trade, buyers would use brands as a means of differentiating between the cattle of one farmer and another (Blackett, 2009). Medieval guilds required that crafts-people put trade-marks on their products to protect themselves and their customers against counterfeits. Thus, the utility of brands as a tool for identification and a guide to consumer choice decisions was established, roles that have remained unchanged till today. The wide-spread use of brands however, is essentially a phenomenon of the nineteenth and twentieth centuries, enabled by the industrial revolution with its improvement in manufacturing and communications (Blackett, 2009).

From this perspective of the brand as an identity, the brand came to be defined as a name, term, sign, symbol, a design or combination of them intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (AMA, 1960: In Kotler & Keller, 2009). The brand is thus a product or service whose dimensions distinguish it in some way from other products or services designed to satisfy the same needs and preferences.

These differences may be functional, rational, or tangible all related to the performance of the brand (Kotler & Keller, 2009). These differences may also be related to more symbolic, emotional or intangible dimensions, and these may relate to what the brand represents in the life of consumers. From this perspective of the brand being an identity flows the legal definition for the brand as a trade mark, that is, a sign or set of signs certifying the origin of a product or services and differentiating it from competition (Kapferer, 2007). Trademarks have birthdays, the day on which they were launched and from that day they need to be defended against infringements and counterfeiting.

The brand is also conceptualised as a set of mental associations, held by the consumer which adds to the perceived value of a product or service (Keller, 2005). Kapferer (2007) built on Keller's definition of the brand by adding that strong brands have intense emotional components as well. Beyond mental associations, the power of brand name is due to the specific nature of emotional relationships it develops. Therefore, a brand, according to Kapferer (2007), is a name with power to influence stakeholders and that what really makes a name become a brand are the saliency, differentiability, intensity and trust attached to these associations. Kapferer (2007) adds that brand power to influence depends on representations and relationships. A representation is a system of mental associations, also described as brand image. Kapferer (2007) sums up on brands by emphasising that a brand exists when it has acquired power to influence the market. To gain market share the brand must be able to conjure a big idea and be attractive. It must also be experienced by people in the organisation, customers and other stakeholders at contact points and activated by people's deeds and behaviours.

Modern brand management begins with the product and service as the prime vector of value (Kapferer, 2007). The brand therefore needs to be communicated clearly and consistently, to structure and orientate tangible perceptions and to add intangible ones. Finally, the brand must be distributed as successful value creation requires successful value delivery (Kapferer, 2007).

The major challenge to branding is coordinating all the value adding activities to deliver a holistic brand experience. Brand management, observed Tosti & Stotz (2001), has moved on from solely focusing on customers to having a more balanced approach on satisfying stakeholders. Therefore, brand management has become a team-based activity, managed at more senior levels by people who adopt a more strategic and broad perspectives.

Services Branding

Because of the *intangibility* of services, branding is more critical for services than for tangible products. Branding aids the marketing of services by differentiating the service beyond commodity level and from competition (Berry, 2000). Classical product branding assumes an internal quality controlled value delivery system invisible to consumers. However for services, and especially education services, the value delivery process is not only visible to the consumers, they participate in the delivery process themselves and thus influence the quality of delivery. Therefore, employees of universities as well as consumers are critical to brand value co-creation and are ultimately responsible for delivering its promise.

Berry (2000) has suggested, based on an in-depth study of a number of firms providing excellent service that four strategic viewpoints should be taken into account in order for the firm to cultivate brand equity and to create brand relationships that pay off. Firstly, services firms must be different. They innovate rather than imitate. Their service is presented differently (brand relationships different from those of competitors are created). Hence, the brand is distinct in the minds of the customers. Secondly, services firms must determine their own fame. To Berry (2000) differentiating the service from that of the competitors is not enough, a service firm must perform services better than competitors.

Thirdly, a service firm must make emotional connection. They must create feelings of trust, affection and closeness. Brands should reflect customer's core values which often go beyond the logical. Finally, service firms internalize the brand through service mindedness and supporting behaviour. The brand relationship is to a large degree created in the service encounter, where customer contact employees often have a central role.

Akotia's (2007) study of Barclays Bank Ghana, the leading bank brand in Ghana during the early 2000s, concluded that the brand's strong consumer equity derived from its holistic approach to branding, and its excellent customer service supported by brand-centred behaviours. Akotia (2007) found that beyond a redefinition of Barclays' mission, vision and values, Barclays also has espoused a set of behaviours, the Barclays' Behaviours. These behaviours (the 6Bs) provide the framework for Barclays' excellent functional performance. The Barclays' brand behaviors are to "delight customers, drive performance, execute plans at speed, grow talent and capability, project and enhance reputation, build pride and passion" (Akotia, 2007). These Barclays' behaviours (6Bs) and the Barclays performance indicators (5Cs), expressed in terms of Company, Customers, Colleagues, Controls and Community, form the bases for employee development and socialisation as well as performance evaluation.

Branding process and outcomes

Several branding models exist but for simplicity of the process Wood's (2000) identity based branding model will be used to explain what the process entails and what outcomes are measurable and at what stage of the process.

Wood defined a brand as a "mechanism for achieving competitive advantage for the firm through differentiation" (Wood, 2000: p.669). This definition adopts a holistic perspective and assumes a relationship. Brands are created and managed synergistically using the marketing-mix as depicted in Figure 1. Brands are strategically positioned in the market by offering distinctive benefits (tangible and intangible) desired by consumers to achieve competitive advantage. Simply put, brand description or identity (sources of brand influence such as: brand value, awareness, associations, personality, reputation, patents) is adapted to the needs and wants of a chosen market segment using the marketing-mix.

Figure 1: The Management of Brand

Marketing-mix → Brand → Competitive advantage

Source: Wood (2000)

Branding or the management of brands involves the creation of brand description (identity) and therefore the degree of brand strength (market share, leadership, penetration, loyalty rate, price premium) achieved. It is assumed that the higher the degree of brand strength the greater the competitive advantage. This relationship is captured in Figure 2. Figure 2 suggests that brand value is a function of brand strength which is also a function of brand description. Brand value, according to Wood, is distinct as it refers to an actual or notional business transaction, while the other two focus on the consumer. It was noted by Wood that the outcome of brand strength is not specified as brand value, but implies market share and profit.

Figure 2: The Brand Equity Chain

Brand description→ Brand strength→ Brand value

Source: Wood (2000)

Literature on branding suggests that strong brands usually provide several advantages such as enhanced line and brand extension possibilities, trade channel access, insulation from competitive attacks and increased entry barriers to competition, higher margins and profit (Kapferer, 2007; Aaker, 1996). Thus, there can be more than one outcome determined by brand strength apart from brand value. Wood noted that brand value measurements could be used as an indicator of market power of a brand. This relationship is summed up in Figure 3.

Figure 3: The Relationship between Branding and Competitive Advantage

Marketing-mix→ Brand description→ Brand strength→Competitive advantage

Source: Wood (2000

According to Wood (2000), competitive advantage, or brand equity, which is the outcome of branding activity, can be measured in terms of revenue, profit, added value or market share. Quantification of measurements provides hard data that can be compared year on year as well as providing references for planning and controlling across the organization.

Research Method

The purpose of this research was exploratory, to enable the researcher gain insights into, and deepen understanding of how branding could be advanced in the complex university environment and to identify future research areas. The discovery-oriented nature of this study, particularly its concern with generating meanings and gaining insights into brand creation process called for a phenomenological approach (King & Grace, 2008; Saunders, Lewis & Thornhill, 2007).

The research questions demanded answers that emphasised full contextual analysis of organisational processes and relationships. In this study, gaining insights and deepening understanding in branding and organisational processes was derived directly from qualitative information generated from exploring brand experts and brand implementers in universities.

The population and sample

Participants were purposively drawn to reflect multiple experiences and backgrounds in brand *development* and implementation. Since the main aim was to explore and deepen understanding of university branding, purposive sampling, on the basis of who was knowledgeable and available to articulate opinions clearly about brand strategy and implementation, was employed. The sample was made up of 7 brand consultants, 6 brand managers of best practice corporate brands, 6 university marketing lecturers and 5 university administrators who are involved in brand implementation in Ghana.

Data Collection

It was important that an interview-guide was used to ensure consistency in interviewing and also to ensure that the research questions were fully addressed through the interview process. The interview guide elicited responses on corporate brand identity, brand management, the roles of leadership, internal communication and organisational structures, policies and human resource policies and practices in brand creation. The interview also elicited information on the strategic imperatives and key success factors for successful brand creation in higher education environment and how brand strategy is clarified and internally implemented and, how brand strategy and performance management are integrated through human resource (HR) policies and practices.

Research Questions and Corresponding Interview Umbrella Questions:

RQ1: How does the university brand create value for the consumer?

1. *What are brand benefits and roles to stakeholders?*
2. *On what consumer attributes can successful university brands be discriminated?*

RQ2: How does a brand create value for the Institution?

1. *What are brand benefits to the university?*
2. *What do university brands stand for?*
   How do they create relevance and value?
3. *How does the university imprint the brand identity on university processes?*

RQ3: What are the success factors for university brand creation?

1. *Who is involved in brand creation and at what level?*
2. *How important is it for leadership to know and live the brand?*
3. *Why is it important that in the university the brand is lived by all?*
4. *How will leadership get employees to live the brand?*

RQ4: What processes are involved in brand creation?

1. *What organisational processes are involved in brand creation?*
2. *What are the roles of leadership and communication in brand creation?*
3. *How are employees enabled and empowered to brand performance?*
4. *What supporting role should structure, policy and HR practice play?*
5. *How is performance measured?*

For an emerging area of study, the qualitative data design provided a more holistic and richer insight into the experiences of respondents with the brand, beyond the understanding that would be generated through a quantitative study (Malhotra & Birks, 2007). In-depth interviewing which involves a certain style of social and interpersonal interaction was chosen among the range of qualitative research techniques because it allowed for one on one interviewing of executives and officers whose schedules are hectic and cannot afford time to gather with other executives in a group setting. According to Malhotra and Birks (2007), in-depth interview also allows for more interviewing in a live context and interviewer reflection. In-depth interviewing choice is also in keeping with recent research in branding and organisational studies (de Chernatony & Cottam, 2008; Burmann, Zeplin &Riley, 2009).

Data Analyses and Presentation

All the interviews were recorded and transcribed. Thematic content analysis was used to analyze the data. Common themes that cut across the respondents' views were identified. The codes were not pre-specified, but resulted from the data analysis. The results have been presented in a factual narrative format that attempts to represent the respondents' relationships and experiences consistent with other similar studies on services branding (de Chernatony& Cottam, 2008), with discussions.

Findings and Discussion

How does a brand create value in the eyes of the university consumer?

Many universities seek to attract students, faculty, and industry seeking staff or consulting business. University brands "identify the source of the service and allow consumers to assign responsibility for its performance to a particular education supplier", noted several respondents. The university brand also functions as a "recognized symbol" in order to facilitate choice and to gain time. Consumers learn about brands through past experiences with the service and its marketing programme (Wood, 2000), finding out which brands satisfy university needs and which do not. They also learn about the brand through alumni, publications authored by university professors and extension activities.

Public speeches and media interviews were particularly highlighted by majority as sources of awareness and association for particular universities. "This awareness help prospects to simplify the decisions on particular universities they wish to do business with," observed one university administrator who emphasised that his Institution's relatively strong image has been helped by his former Rector's relevant outspokenness on national issues. This is in keeping with Kapferer (2007) who observed that as consumers' lives become more complicated, rushed, and time starved, the ability of a brand to simplify decision making rigour and reduce risk is invaluable.

How does the brand create value for the university service provider?

If the brand is strong, it benefits from a high degree of loyalty and thus from "stability of future admissions, attraction of desirable faculty, consulting services and reputation in general". The reputation of the university brand is a source of demand and lasting attractiveness, the image of superior quality and added value which may justify a premium price. A dominant university brand was said to be "an entry barrier to competitors because it acts as a reference in its category," noted several respondents. If the brand is prestigious, it can generate substantial royalties by granting accreditation to other Institutions.

Brand loyalty also provides "predictability and security of demand for the university and can translate into customer willingness to pay a higher price, often 20 to 25% more than competing brands" as is the case of some business schools in Ghana. Although competitors may duplicate services delivery processes and product designs, they cannot easily match lasting impressions left in the minds of individuals and organizations by years of service experience and marketing activity (Gronroos, 2000). For the university, branding can be a powerful means to secure a competitive advantage (Kapferer, 2007).

The strategic imperatives for university branding

What really makes a name become a brand are the benefits of saliency, exclusivity, and trust that name evokes (Kapferer, 2007), but how are these benefits achieved for university brands?

The university brand is "created through its products, not advertising," emphasised a brand consultant who added that the "advertising route to branding was wasteful of resources". For the university, its ambassadors are the quality and success of its students and faculty members, hence the criticality of selection of its students, and faculty members and the publication of professors in the leading journals as a means to impact learning. Respondents emphasised the need therefore for universities to purposefully recruit and admit best quality students as well as support faculty members to research and publish. Respondents noted that some universities achieved fame because of the publication contributions of notable faculty members. Kotler to North-Western and Porter to Harvard's image and competitiveness were mentioned by some respondents. In Ghana, Professor Stephen Adei, former Rector of GIMPA, was mentioned as one professor whose commentaries on national issues helped boost the image of GIMPA, ahead of much older institutions.

Respondents suggested three elements as key to successful service branding: the brand *identity* (true essence and character), the brand *environment* (employee mental assets, behaviours and attitudes) and the *basics* (the organisation structures-resources, systems and processes).

The brand identity must be inspirational
Every corporate entity "must have a dream, a vision" (university administrator) to inspire it to great achievements. This vision must spell out "what the institution wants to achieve, and consists of an immensely inspirational and motivating goal which reaches beyond money or students enrolment numbers or pass grades" (several respondents). A vision of where it wants to be, "a clear, simple and stimulating statement must connect the entire institution passionately towards brand goal achievement" (university administrator).

Values must drive behaviour: The institution must clearly spell out its core values to drive appropriate behaviour and provide the principles for the brand's healthy growth. These values must be deeply embedded within the organisation. When these values are enacted with passion by faculty members and university employees in general they are more likely to result in true staff conviction, and thus engender brand supportive behaviour. According to de Chernatony and Segal-Horn (2001), values act as a point of difference, stimulating a unique style of behaviour from employees, and secondly, values are a source of motivation for employees.

Mission must differentiate: The Institute must feel it truly exists and that it is a coherent and unique being, with a history and a place of its own, different from others. "Many schools (for example: Yale, Harvard, Birmingham) have mission statements which articulate university *raison d'être* and which differentiates them from other institutions and gives them real meaning and uniqueness to their existence" (University administrator). Here respondents said though most universities in Ghana have mission and vision statements these are largely meaningless as the universities do not make efforts to "internalise what they purport to believe". "It is not enough to have these statements, you must bring them alive, through the behaviours of leadership and members," emphasised a brand consultant.

An educational brand has to express its brand vision through the definition of its positioning, which is the externalisation of the brand proposition with a view to occupy a distinctive place in the minds of the desired prospects (Ries & Trout, 2001). The brand identity, mission and values are employed as levers to guide management decision-making. They become central organising principles for the entire education service organisation.

Robust business plan: When it comes to *how* an education brand will achieve its vision, respondents said it needs thorough understanding of the market place. Allied to the mission statement the university must clearly define brand's *know-how*, attributes that will bring the brand values alive and generate bases for customer relevance and distinctiveness. Insead became Europe's most famous Master of Business Administration (MBA) provider through its understanding of, and delivering the European market's value for a rigorous immersion in a truly international ten-month long programme in which students learn to work with multi-nationalities (Kapferer, 2007).

Several respondents stressed that an educational brand needs a challenging and detailed business plan, and this plan must show clearly what and how each part of the organization is expected to contribute to the overall achievement of the goals. The business plan must begin with the vision and must be exciting and motivating to organization members. But the focus of this plan must be to deliver the brand promise or propositions consistently and to achieve brand business objectives. The plan must be based on a "clear focus on stakeholders". Thus, "continuous stakeholder dialogue systems with faculty and managers on one hand and, on the other with prospective clients, the community and government are imperative to inform the university's strategic plan" (corporate marketer). The plan must be "clearly owned by faculty and managers to stand a chance of successful implementation", stressed several respondents.

The environment must be both tough and enabling

This involves internal branding which must aim at provoking appropriate brand behaviour among staff leading to brand supporting organisational culture.

Internal branding: The University must aim to enable and empower its employees to perform at high levels. "Workshops, sharing research findings and implications, collaboration in research, cross functional project teams, brand leadership interaction with staff, multi-level contacts with clients, brand rites, storytelling and the development and use of corporate brand lingo", were mentioned as some tools for internal branding. According to Vallaster and de Chernatony (2003), only when employees have a shared mental model of the corporate brand is consistent brand supporting behaviour possible.

Transformational leader imperative: The leadership perspective must be transformational with an enormous focus on cultural sense making through strong values management. Leadership's role in the university is to "create the values and systems to realise from staff brand-asset mindedness and behaviour that will construct for the institution a culture which is congruent with brand values" (marketing practitioner). Leadership in universities that adopt branding are not passive, they constitute the face of the brand, setting the tone for all brand supportive behaviours. They must be "managers of meaning, articulating the vision, broadening and promoting the interest of followers, generating awareness and acceptance of the purpose and mission of the brand, and motivating the entire followers to go beyond their self-interest for the good of the brand," said one corporate manager. However, the regret for several of the respondents is that "leadership for most universities in Ghana are not role models at all... not setting the leadership tone with university brand behaviours for others to follow."

Brand centred HR: For effective university branding, faculty, managers and supporting colleagues are critical to brand promise delivery. Because of services' unique characteristic of intangibility, *variability* in service delivery is likely to occur. So staff must be carefully recruited, trained, inducted, empowered and motivated to support the brand. A successful service brand, according to Free (1999), attracts, develops and retains employees who can transform the brand's values into actions and behaviours perceived by customers as appropriate and unique. Such universities must also exhibit high passion and commitment to the institution's core values. Given the importance of expectations in the establishment of high quality standards, internal climate study should be conducted to ensure that management and faculty expectations of the service are aligned to students and other clients (Leblanc & Nguyen, 1997).

Continuous service process improvements: Respondents noted that the process by which students and other customers acquire university services should be improved continually. Respondents placed emphasis on students' recruitment and admission, teaching, and examination and reporting processes. What discriminates successful brands from also-rans is the ability to adapt or reorient themselves continuously while remaining true to core values (Collins & Porras, 1998). Fostering dialogue with the business community and offering co-operative business programmes that emphasise on the job experience are prerequisites to improving the institution's reputation and service delivery (Leblanc & Nguyen, 1997).

Respondents noted that successful service brands are characterized by employees that reinforce the values of the brand. Therefore, internal marketing programmes to communicate with staff about the brand, to motivate them and help them appreciate their roles as university brand ambassadors are carefully made part of the organisation. Mitchell (2002) has advocated applying the principles of consumer marketing to internal communication so leadership can guide employees to a better understanding of, even a passion for, the brand. Keller (1999) on the other hand advocated the concept of brand "mantra" to improve internal brand building. Brand mantra, according to Vallaster and de Chernatony (2003), refers to the internal translation of a brand's external position to enable staff understand the values and the behaviours needed to reinforce these.

Team approach: Organisations that have effective internal branding have people working in "teams, supporting one another and collaborating". There are minimum controls and procedures. People have the "sense of belonging and pride in being members of the elite organisation.... work is fun, team spirit is strong, and success is greatly celebrated" (sampled views from practitioners. But "compromises to core values are eschewed and there is little room for those who will not and can not conform to brand supportive behaviours." These views are consistent with Collins and Porras (1998).

The basics required for high performance

For successful internal branding, respondents noted that human resource (HR) management must have elevated position within the brand leadership team, "using the HR policies and practices to orchestrate brand supportive behaviours and culture" (sampled views). For service branding success, the brand must become the religion, and brand behaviours the credo channelling staff energies to brand promise delivery, rewarding those who enact the brand behaviours and ejecting those who can not or are unwilling to live out university roles (Collins & Porras, 1998).

HR must aim at positive attitudes: HR must ensure, as part of internal branding process, that all those involved in the educational brand value delivery are committed, prepared, informed and motivated. Another domain of HR is to ensure employees possess the appropriate knowledge, skills and organizational support (Vallaster & de Chernatony, 2003) to become effectual brand ambassadors.

Corporate structures must be supporting: Respondents called for clear corporate structure which must direct employee behaviour along the defined brand promise. Vallaster and de Chernatony (2003) conclude that the continuous blending of corporate structure with related brand symbols and rites can improve employee commitment. The university corporate structures specify how an individual should behave and how decisions are to be made in a brand-consistent way. Corporate structures are defined as rules and tangible or intangible resources which members of an organisation can draw upon to act in brand supporting manner (Vallaster & de Chernatony, 2003). To harmonise internal communication therefore, several corporate managers recommended that institutions create identity charters, to ensure consistency in brand communication and recognition.

With increasing diversity of university staff comes country, regional, sub-cultural influences on individual's interpretation of structural conditions. The structures must not only be consistent with the brand's deepest values, they must emanate from the brand identity. For example, "the brand must not be promising *excellence in management education* when basic resources are lacking to make this promise feasible ... when on-line admission/registration processes and basic presentation equipment that nowadays are taken for granted even in *ordinary* institutions are lacking in a particular institution,... when curriculum updates lag,.... library facilities are dismal and employers are not experiencing excellence in the products from the institution and,... when faculty is in constant shortage, morale abysmal and turnover high, ...a brand promise of world class management education is simply unrealistic and will not evoke trust and certitude", were some sampled views from respondents.

University Brand Equity: Brands do generate differential competitive advantages, normally referred to as brand equity. What is to be measured and at what level can measurement be done? Respondents suggested that measurement of the brand performance can be done at several levels. The recommendation of respondents was to separate consumer brand equity (brand assets/descriptors and brand strength) from brand financial valuation.

Starting with consumer brand equity, respondents suggested that at the brand description level, brand awareness, brand association, perceived brand personality, quality and values can be measured as they reflect with specific stakeholders. At the brand strength level however, market share, leadership, loyalty rate could be employed consistent with Wood (2000). Multi-item measures were strongly recommended with brand awareness, perceived quality, brand loyalty and brand association being the most common among respondents. Many respondents also pointed to several university rankings schemes but noted that these may use factors that may not load the drivers for university brand choices.

Brand financial value was said to be brand competitive advantage which is the outcome of branding activity, consistent with Wood (2000). A brand's competitive advantage in financial terms can then be measured in several ways: revenue, profits and market share. A few respondents suggested that one other form of the university brand equity could be through brand valuation. Brand valuation in this context is derived from net discounted cash-flow attributable to the brand after paying the cost of capital to produce and run the business and the cost of marketing (Kapferer, 2007).

The Conceptual Framework

What processes and success factors are involved in university branding? Based on the study, a conceptual framework is suggested.

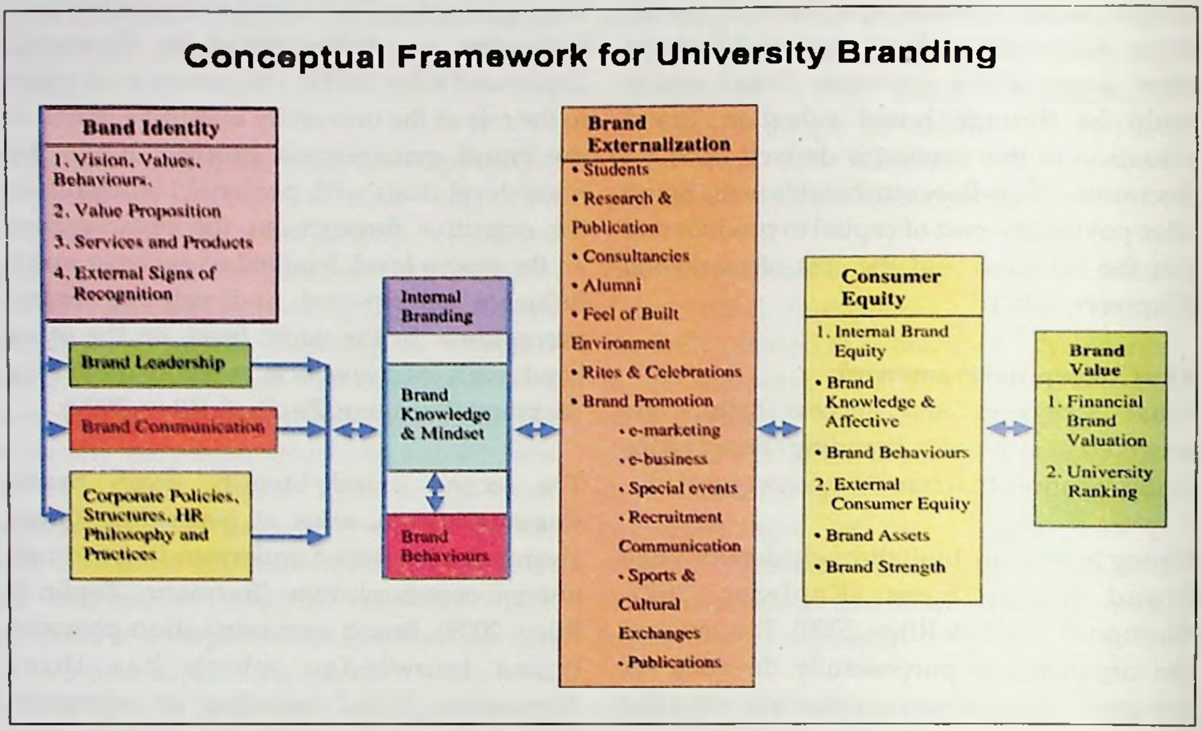
Strong brands are built through identity based brand management (Kapferer, 2007; Burmann, Zeplin & Riley, 2009). This involves the organisation purposefully directing the behaviour of members to behave in ways that support and promote the brand values.

Just like a person, for a brand to be strong, it must have an identity, which is its true self, a field of unique competence, driven by a vision, values and personality that are different from others and resistant to change (Kapferer, 2007). The main dimensions of brand identity are brand vision, values (culture), personality, capabilities, behaviour and other recognisable brand externalisations (Burmann, Zeplin & Riley, 2009). Corporations combine and coordinate several brand identity driven policies, activities and measures that are combined in three levers: brand-centred leadership, brand communications and brand supporting structures, policies and HR practices (Burmann & Associates, 2009).

The first brand lever, **Brand Leadership**, aims at encouraging brand leadership at all levels in the organisation. Two brand-relevant levels of leadership are distinguished by Burmann, Zeplin and Riley (2009). The macro level refers to the role of the university executive board in the brand management process, while the micro level deals with personal leadership of the executive through-out the organisation. At the macro level, leadership exercise much influence on internal and external brand perceptions. At the micro level, on the other hand, each executive acts as a role model for the brand (Burmann, Zeplin & Riley, 2009).

The second brand identity lever, **Brand Communication**, aims at generating brand awareness and shared understanding through internal communication (Burmann, Zeplin & Riley, 2009). Brand communication provides brand knowledge which has three dimensions: brand meaning or relevance, knowledge of customer needs and expectations, and employee understanding of university responsibility to deliver the brand promise. Internal communication aims to influence employee brand knowledge, attitudes and behaviours and the outcome of internal communication include employee commitment, shared vision, a service minded approach, loyalty and satisfaction.

The final brand identity lever, **Brand-centred Human Resources**, aims at ensuring person-brand identity fit through brand directed HR activities, supporting structures and policies. Brand centred HR ensures that applicants with personal identity fit are recruited and selected, are trained and developed, motivated, promoted and "internalised" through a series of planned brand socialisation/orientation programmes. Brand-centred HR also ensures employees are adequately remunerated and that the organisational structures are designed to support the brand identity.



Akotia (2010)

This coordinated brand directed measures interact with organisation culture to produce performance culture that is supportive of the brand identity. This comes in the form of University brand knowledge and behaviours which are projected externally to students, alumni and the community. Consumer equity becomes generated in the form of human-based competences and attitudes as well as external consumer equity. Finally the brand value is generated in the form of notional financial valuation as well as university ranking which may be based on critical drivers of value added activities.

Conclusion

The educational brand experience is driven by what happens at points of contact, where the customer interacts with the faculty members, supporting staff and other customers in brand value co-creation. However, education services are deeds, performances and for these reasons may run the risks of being perceived as commodities. Thus, university branding involves two-way recognition. Internally, the university's people must adopt the brand and be aligned to brand identity through brand supportive mindedness and supporting behaviours. At another level, the brand promise must be delivered to the chosen market. Success in what has now become a competitive and cluttered university market will depend on effective brand differentiation, based on the identification, internalisation, delivery and communication of unique brand values relevant to and desired by consumers. Further empirical work is required to validate this conceptual framework.

REFERENC

Aaker, D. (1996). *Building Strong Brands*. New York: The Free Press.

Akotia, M. (2007). Strategic Services Branding: An imperative for services financial performance. GIMPA Journal of Leadership, Management & Administration, 5/1

Blackett, T. (2009). What is a brand? In R. Clifton (Ed): *Brands and Branding*. London: The Economist with Profile Books

Berry, L. (2000). Cultivating services brand equity. *Journal of Academy of Marketing Science, 28(I)*, 128 - 137.

Brymer, C. (2009).The Future of Brands: In R. Clifton (Ed): *Brands and Branding*. London: The Economist with Profile Books.

Bunzel, D. (2007). Universities sell their brands. *Journal of Product & Brand Management*, 16/2

Burmann, C., Zeplin S. & Riley, N. (2009). Key determinants of internal brand management success: An exploratory empirical analysis. *Journal of Brand Management*, 26 (4), 264-284.

Chapleo, C. (2010). What defines successful university brands? *International Journal of Public Sector Management*, 23/2

Collins, J.C. & Porras, J. (1998). *Built to Last*. London: Random House Business.

de Chernatony L. & Cottam S. (2008). Interactions between organisational cultures and corporate brands. *Journal of Product and Brand Management*, 17(1), 13-24.

de Chernatony, L. (2001). *From Brand Vision to Brand Evaluation-Strategically Building and Sustaining Brands*. Oxford: Butterworth Heinemann.

de Chernatony, L. & Dall'Olmo Riley, F. (1996). Did Brand Managers Ever Jump on the
same Brand Wagon as Brand Consultants? *ESOMAR Publication Series, 203,* 34-50.

de Chernatony, L. & Dall'Olmo Riley, F. (1998). Defining A "Brand": Beyond The Literature
with Experts' Interpretations. *Journal of Marketing Management 14,* 417 - 443.

de Chernatony, L. & McDonald, M. (1998). *Creating Powerful Brands in Consumer, Service and
Industrial Markets,* Oxford: Butterworth-Heinemann.

Free, C. (1999). The Internal Brand. *The Journal of Brand Management, 6,* 231 - 236.

Gronroos, C. (2000). *Service Management and Marketing.* New York: New York

Kapferer, J. (2007). *The New Strategic Brand Management* , London: Kogan Page.

Kotler, P. & Keller, K. (2009). *Marketing Management.* New Jersey: Pearson.

Keller, L. (2005). *Strategic Brand Management.* New Delhi: Prentice-Hall

Keller, K. (1999). Brand Mantras: Rationale, Criteria and Examples. *Journal of Marketing Management, 15(1-3), 43-51.*

Leblanc, G & Nguyen, N. (1997). Searching for excellence in business education: an exploratory study of customer impressions of service quality. *International Journal of Educational Management.* 11/2, 72-79.

Malhotra, N. & Birks, D. (2007). *Marketing Research.* Harlow: Pearson Education

Mitchell, C. (2002). Selling the brand Inside. *Harvard Business Review, 1,* 99-105.

Ries A., & Trout, J. (2001). *Positioning: The Battle for your mind,* New York: McGraw-Hill.

Tosti, D. & Stotz, R. (2001). "Building Your Brand From the Inside Out", *Marketing Management.* July / August, 181-191.

Vallaster, C. & de Chernatony L., (2003). Service branding: The role of leadership during
the internal brand building process (*working paper*), Birmingham.

Wood, I. (2000). Brands and brand equity: Definitions and management. *Management Decision, 38(9),* 662 – 669.

Zeithaml, V. & Bitner, M. (2009). *Services Marketing.* New York: McGraw-Hill.

ABOUT THE AUTHOR

Mr Mathias Akotia, Chief Executive Officer of Brand Ghana Office since September 2009, brings to this role his vast experience working on commercial and corporate brands and demonstrated achievements at the highest levels of international brand management. He has also presented at several prestigious forums on brands and branding in Europe, Asia and Africa and has several publications on brands and branding in peer reviewed journals.

Mr Akotia's management career began with Unilever in 1987. He later joined British American Tobacco (BAT), rising to become Brand Marketing Director, BAT Central-West Africa. While with BAT, Mr Akotia worked for BAT-Kenya, BAT-West Africa and, was at one time Managing Director of Pioneer Aluminium Factory, Tema.

A member of the Chartered Institute of Marketing, Mr Akotia has won several "excellence" citations, culminating in the award of BAT's prestigious Sir Albert Levy Award for Marketing Excellence.

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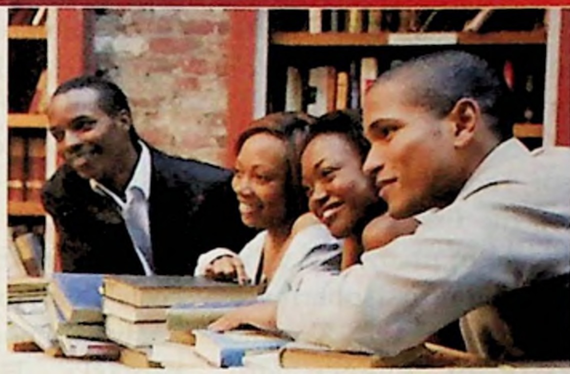



STUDENTS CORNER

'ASAAWA': The Genesis, the Meaning and the Story

An ingenuous Ghanaian aged 24 entered London, the United Kingdom in August 1976 to pursue professional accountancy studies in the then Polytechnic of Central London.

The young man was introduced to the professional examinations of the Institute of Credit Management, and the UK Finance Houses Association Diploma by his finance course lecturer. He studied for the examinations of the two programmes along with the Chartered Association of Certified Accountants [ACCA], UK, professional examinations.

In 1978, the young man aged 26 sat for the world-wide professional final examinations of the Institute of Credit Management and excelled as the best candidate worldwide winning the Queen's award in Credit Management instituted by Sir Kenneth Cork, the then patron of the Institute.

Mr. Omane-Antwi holding the Sword of Honour

He was presented with a Sword of Honour by the Institute for his outstanding performance and his academic achievement was published in the winter edition of the Credit Management journal in 1979.

The young man, swimming in the fashion of the era – bushy hair [the afro hair style] – received the honour with pride and he was gingered on for more honours by Sir Kenneth Cork. Thanks to God, he passed the UK Finance Houses Association Diploma with distinction and in 1979 added the completion of the ACCA final Sections Two and Three professional examinations at one sitting passing all the eight [8] subjects in the two sections at the age of 27.

His performance was big news in that decade and he was thrown into teaching by accident, upon receiving invitation from the world renowned guru in auditing, Emile Wolf, to teach at the Emile Wolf College of Accountancy, London.

His mentor, Professor Tackie [may his soul rest in perfect peace], the first Ghanaian to complete doctoral degree in pharmacy, who led the establishment of the first pharmacy college in West Africa in the Kwame Nkrumah University of Science and Technology(KNUST), immediately arranged for his repatriation by the Government of Ghana to KNUST as acting Finance Officer.

Kwame Boasiako Omane-Antwi, the young man, came to KNUST at the heat of the Jerry John Rawlings' revolution and found himself as acting finance officer and lecturer at the Department of Planning as well as part-time lecturer at Kumasi Polytechnic, teaching financial accounting and auditing. He also taught costing in the Advanced Technical Teachers' Institute (ATTI), Asuoyeboa, Kumasi (now University of Education, Winneba, Kumasi Campus).

In the 1981/82 academic year (the year when Ghana lost most of her academicians to neighbouring countries, Nigeria in particular), the costing lecturer of ATTI had also left for Nigeria and Kwame, aged 29 years, found himself teaching trained teachers of average age of 47 years old. As indicated, the subject was costing and the topic for the lecture period was 'Cost Volume Profit Analysis [CVP]'; a study of how cost and profit vary with changes in volume.

Fortunately or unfortunately, the topic had been taught earlier by the teacher who had left for Nigeria. However, it was apparent it had not gone down well with the students in terms of explanation and assimilation of the principles inherent in CVP. As I tried to expound on the topic by expanding the simple equation: Profit = Revenue – Costs and went on further to derive equations leading to the explanation of 'contribution margin', 'breakeven unit sales', 'target profit', 'fixed costs', 'variable costs', etc; to illustrate CVP analysis, a popular student made a deafening remarks. He was 57 years and was understandably considered the 'father' of the class. Apparently, he had seen my Queen's Award picture in the Credit Management journal somewhere, and was wondering whether I was the same person. As the lecture went on, he suddenly got up and exclaimed loudly – 'ASAAWA!' and I unconsciously responded 'asaawa' with the whole class bursting out with a thunderous applause followed by laughter.

The 'father' of the class, the student, further explained that for almost one month, they [students] had struggled to understand the CVP topic as taught by the previous lecturer and so he became astonished when he saw the ease, speed, clarity and in-depth manner with which I was handling the topic. Again, the style and delivery was fascinating coupled with the fact that he realized I was the same Ghanaian he had seen in the Credit Management journal. Furthermore, the quick derivation of the equations as listed below kept him wondering 'what kind of man' is this person hence the exclamation:

- Profit = Revenue-Cost
- Profit = Revenue -Variable Costs - Fixed Cost
- Profit= [Unit, Sold*Revenue per unit]-[Units Sold*Variable Cost per Unit]-Fixed Cost

- Profit=[Units Sold*[Revenue per unit-Variable Cost per Unit]]-Fixed Costs
- Profit= [Units Sold *Contribution Margin per Unit]-Fixed Costs.

For him, 'Asaawa!' means 'eko yie paa!' which literally means 'it is going down very well with him'.

He explained further that traditionally, the old folks in Ashanti villages will make such exclamation when they are happy and proud of a wise saying from a village member. The traditional response to the exclamation 'Asaawa!' is 'Odondo!' portraying the natural link that a thread (asaawa) has with the spool (odondo). This expression also connotes brilliance and outstanding display of knowledge, strength and wisdom.

'Asaawa' suddenly became my nickname circulating among my students in KNUST, Kumasi Polytechnic and ATTI in the early 1980s.

Kwame left Ghana again for his Masters in Education in the Institute of Education, University of London in 1985 and followed it up with one year International Teachers' Program [1986] at the Harvard University USA; MBA and PhD in Accounting was obtained from the Louisiana State University, USA and he returned to the University of Cape Coast in the 1991/92 academic year. One would assume that a curtain had been drawn over the days of asaawa, considering Kwame's long sojourn overseas.

Unfortunately for Kwame, a student he lectured in ATTI who was studying for his Bachelor of Commence [Bcom] in the University of Cape Coast, Department of Business Studies, spotted him during an Auditing lecture and in the mood of excitement, he yelled 'Asaawa!' and the student body spontaneously also exclaimed 'Asaawa'. Unconsciously, I also answered him in the same vein. 'Asaawa' has come to stay in UCC and continued to follow me wherever I went.

I came to PUC and met my former students now lecturers: Rev. Obuobi, Abassah Konadu and many others who are working in PUC today and the name calling continues -asaawa, asaawa, asaawa!

After thirty years of teaching and still teaching, I am proud that 'Asaawa' has produced many 'asaawas' some of whom are Professors, Deans of Business Schools, Senior Lecturers, Managing Directors, and Finance Directors, etc., today.

Asaawa Elder Professor Kwame Boasiako Omane-Antwi says 'ayekoo' to all of my students, the past and the present who have kept faith with me.

May the Lord our God, approve their plans and bless their efforts 'Yes' bless their efforts, Amen!

ECONOMIC AND FINANCIAL REPORT

Ecobank
The Pan African Bank

Review of 2012 Budget - Ghana

Infrastructure Development for Accelerated Growth and Job Creation

	2011 Target	2011 Provisional Outturn	Variance between 2011 target and 2011 actual	2012 Target
Real GDP Growth (excluding oil)	7.50%	n.a		7.60%
Real GDP Growth (including oil)	14.40%	13.60%	-0.80%	9.40%
Average Inflation	8.70%	9.38%	0.68%	8.70%
End Period Inflation	9%	8.40%	-0.60%	8.50%
Overall Budget Deficit	5.1% of GDP	2.0% of GDP (Sept)	-3.10%	4.80%
Total Revenue & Grants	14.30% of GDP	15.50% of GDP	1.20%	22.40% Of GDP
Net Domestic Financing	2.7% of GDP	2.1% of GDP	-0.60%	2.40% of GDP
Gross International Reserves	Not less than 3 months of import cover			Not less than 3 months of import cover

INTRODUCTION

On the back of sustainable macroeconomic stability (reflected in a year-end inflation of 8.6%, GDP growth of 13.6%, low interest rate at 9% and a relatively stable cedi), the 2012 budget launches an aggressive growth agenda with key focus on massive infrastructure development. Increased revenue mobilization and tax incentives will be the main policy thrust underpinning the proposed accelerated growth agenda.

Highlights

Ghana's GDP growth improved from 7.7% in 2010 to 13.6% in 2011 as a result of significant industrial sector growth of 36.2% (compared to a target of 37.2%) largely due to the commencement of commercial crude oil production in Ghana. Evidently, the economy may have struggled to sustain this growth in the absence of the oil sector as the growth for other sectors declined during the period. The growth of the agriculture and services sectors fell to 2.8% and 4.2% in 2011 from 5.3% and 9.8% in 2010 respectively. In 2012, GDP growth is projected at 9.4% on the back of accelerated industrialization, modernization of agriculture and natural resource development in line with the pursuit of sustainable macroeconomic growth underpinned by infrastructure investment.

Whereas we consider the revenue projections of the Government feasible, we foresee that the government may face difficulties in coupling its monetary and fiscal objectives. Characteristic of run up to elections, it is likely that fiscal slippages may offset the policy targets and result in wide variances for both fiscal and monetary targets. It would therefore be challenging for the government to maintain the fiscal austerity measures which limited the economy's growth in 2011 in pursuit of stability. Revenue target was exceeded by 8.4% whilst expenditure remained 1.2% below the 2011 budget estimate for the first three quarters of 2011. However, expenditure for the whole 2011 is expected to be 8.1% above the 2011 budget estimate due to the clearance of arrears and other expenditure commitments.

The expenditure estimates for 2012 indicate that 49% of the fiscal deficit gap will be financed with domestic debt issues. This raises concerns for the possibility of crowding out of the private sector in the market for loanable funds for expansion and upward pressure on interest rates. The resulting increase in the cost of credit and restriction in access to credit will hamper economic growth and derail the budget's objective to sustain the current stable macroeconomic environment.

There is an emerging pressure on the Ghana Cedi which depreciated by 3.2% and 6.2% against the USD in the interbank and forex bureaux markets respectively. In our opinion, the downward trend the Ghana Cedi was driven largely by insufficient USD supply on the local market (from BoG intervention or mining firms), eurozone concerns and investor flight to the USD.

The Economy at a Glance

While a lack of BoG intervention in the weeks ahead will undermine the Ghana Cedi, foreign reserves (US$4.98 billion) are likely to increase in the months ahead as oil, gold and cocoa export receipts rise in line with robust output and global prices.

Public debt rose from US$11.25 billion in September 2010 to US$14.77 billion in September 2011 as a result of positive net effect of debt flows and the issuance of 5-Year and 3-Year Fixed Rate Bonds during the year.

The 2012 budget is focused rightly on bridging the country's infrastructure deficit in a bid to build a foundation for accelerated economic growth under the theme "Infrastructure Development for Accelerated Growth and Job Creation".

However, considering the yawning infrastructure deficit gap, we may not see the impact of these accelerated programs in one year. In 2012, the emphasis will be on accelerated industrialization, modernization of agriculture and natural resource development in line with the pursuit of sustainable macroeconomic growth underpinned by infrastructure investment. Growth rates for the entire economy and the non-oil segment for 2012 have been projected at 9.4% and 7.6% respectively. In line with the theme of the budget, the Annual Budget Funding Amount from oil revenues will be disbursed in the following priority areas: expenditure and amortization of loans for oil and gas infrastructure, road and other infrastructure, agricultural modernization and capacity building (including gas and oil). Further, one of the key policy initiatives in the GH¢ 18.98 billion budget is the US$3.00 billion loan facility from China Development Bank which would be used to fund infrastructure projects in several sectors including agriculture, transportation, oil & gas and ICT. We believe that if we are to achieve the targets set in the budget, we need to effectively and efficiently implement the projects outlined in the budget.

Despite the projected 22% rise in expenditure to GH¢18.98 billion in 2012, an election year, the budget also aims to sustain the current macroeconomic stability and fiscal consolidation achieved since 2009. The major macroeconomic targets for 2012 include:

* Real non oil GDP growth of 7.6%
* Real Overall GDP growth of 9.4%
* Average inflation of 8.7%
* End period inflation of 8.5%
* Overall budget deficit of 4.8% of GDP
* Foreign reserves of not less than 3 months of import cover

The 2012 budget estimated total revenues at GH¢15.61 billion, GH¢14.37 billion from the non- oil sector and GH¢1.24 billion from the oil sector. The budget also touches on key resource mobilization initiatives primarily aimed at broadening the tax net and enhancing tax receipts from professionals, the informal sector and mining companies. Revenues from professionals and the informal sector are expected to increase from 4% to 8% as a result of the wider administration of the tax net. The Key initiatives aimed at enabling the government to meet its revenue target include:

* The Government has raised the VAT registration threshold from an annual turnover of GHS 90,000 to GHS 120,000. Businesses with a turnover of less than GHS 120,000 will pay a presumptive tax of 6% of turnover.

* The corporate tax rate for mining companies has been increased from 25% to 35%, with effect from January 2012

* A 10% tax will be slapped on all windfall profits generated by mining companies

* A uniform regime for capital allowance of 20 per cent for five years for mining, as is the case in the oil and gas sector is also established

* Income tax thresholds have been revised. The free bracket has been extended from GHS1008 to GHS 1440.

Whereas we consider the revenue projections of the Government as feasible we foresee that the government will face difficulties in coupling its monetary and fiscal objectives. Characteristic of run up to elections it is likely that large fiscal slippages may offset the policy targets and result in wide variances for both fiscal and monetary targets.

However, expenditure is estimated to rise by 22% to GH¢18.98 billion, resulting in estimated deficit of GH¢3.37 billion (4.8% of GDP). The deficit is expected to be financed from both domestic and foreign sources. The deficit may also be financed with anticipated disbursements totaling GH¢1.20 billion from the China Development Bank loan facility in 2012.

The estimates in the expenditure for 2012 indicate that 49% of the fiscal deficit gap will be financed with domestic debt issues. This raises concerns for the possibility of crowding out of the private sector in the market for loanable funds for expansion and upward pressure on interest rates. The resulting increase in the cost of credit and restriction in access to credit will hamper economic growth. And this would derail the budget's objective to sustain the current stable macroeconomic environment.

Finally, although the planned creation of a Small and Medium Scale Enterprise

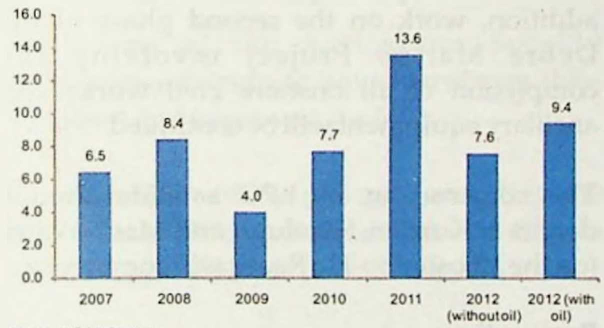
Development Market on the GSE is a laudable initiative, we do not expect this to have great impact on market activity.

Small market capitalization companies have been among the worst performing stocks on the Ghanaian stock market. Further, we would like to see bold and concrete steps by the government to list several state entities that were earmarked for listing on the GSE some years ago. In furtherance to the development of the capital market, the budget extended the tax holidays of the Ghana Stock Exchange by another 5 years, extended exemption from capital gains tax for another 5 years and also exempt VAT on financial services offered by funds that invest on the Ghana Stock Exchange.

The Economy at a Glance

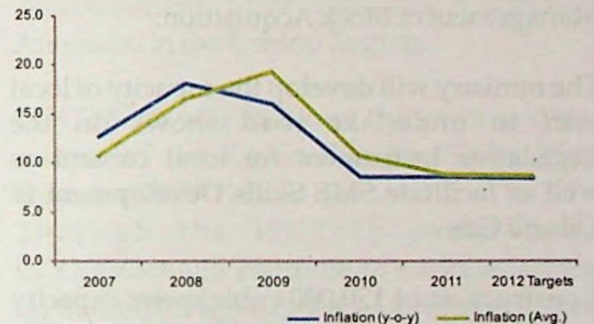
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Real GDP growth	6.40%	5.70%	9.32%	5.80%	7.60%	10.70%	8.10%	7.10%	6.90%
Agriculture growth	4.50%	2.40%	7.40%	7.20%	5.30%	2.80%	4.80%	4.70%	5.00%
Industry growth	9.50%	5.10%	15.07%	4.50%	5.60%	36.20%	15.80%	11.80%	8.40%
Services growth	6.20%	9.00%	7.99%	5.60%	9.80%	4.20%	7.70%	5.60%	6.90%
Year-end inflation	10.92%	12.75%	18.13%	15.97%	8.58%	8.56%	8.50%		
Average inflation	11.69%	10.73%	16.52%	19.29%	10.75%	8.76%	8.70%		
Exchange rate (GH/\$)	0.92	0.94	1.06	1.41	1.45	1.58			
Exchange rate (GH/£)	1.15	1.28	1.56	1.96	2.25	2.46			

Ghana GDP Growth (%): 2007 - 2012



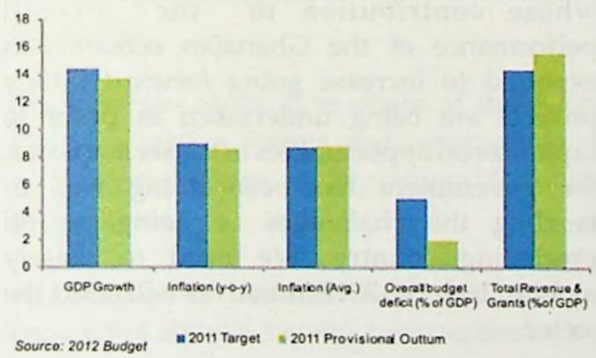
Source: IMF, 2012 budget

Ghana Inflationary Trend (%): 2007 - 2012



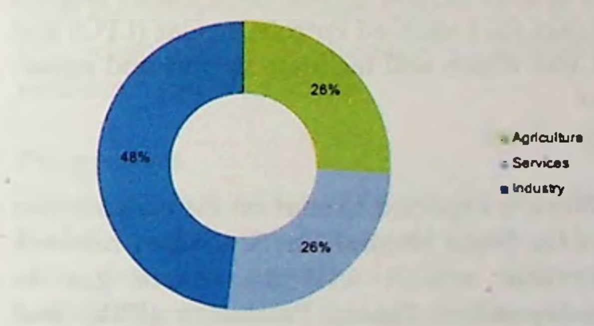
Source: GSS, 2012 budget

Ghana: 2011 Budget Targets vs 2011 Provisional Outtturn



Source: 2012 Budget

Ghana: Composition of 2011 GDP



Source 2012 Budget

SECTOR ANALYSIS OF BUDGET PROVISIONS

OIL & GAS

Objective	Description of the objective(s)	Status
Increase in fiscal year total revenue	'**Oil accrual** to the budget was estimated at GH¢584.0 million, equivalent to 1.9 percent of GDP '**Total** oil and non-oil revenue and grants for the 2011 budget were estimated at GH¢10,601.1 million, equivalent to 34.0 percent of GDP '**Direct taxes** were estimated to increase by 40.1 percent to GH¢3,334.8 million in 2011, accounting for 43.2 percent of total tax revenue. Of this amount royalties and income tax from oil was estimated at GH¢321.9 million '**Indirect taxes** were estimated at GH¢2,393.1 million, representing 31.0 percent of total tax revenue. The estimate for 2011 was made up of GH¢1,937.7 million for total VAT, while petroleum taxes were expected to yield GH¢330.0 million.	On track
Petroleum subsector: Intensification of exploration, production and distribution activities	'**key projects** will include the appraisal of Tweneboa Complex and ENI Sankofa and Deepwater Tano Block. Exploration in other blocks will be intensified. The gas commercialization project will also be scaled up and the Gas master plan developed ' **An inland** petroleum jetty, river barges and tug boats at Debre will be completed while the rural kerosene distribution programme will be redesigned and improved	**Partially-On track**

2011 Policy Initiatives

The Upstream Petroleum Sub-sector will continue with the development of the Gas Commercialization Master Plan and the Management of Block Acquisition.

The ministry will develop the capacity of local staff to undertake road shows on the Legislative Instrument for local content as well as facilitate SME Skills Development in Oil and Gas.

Construction of 150,000 cubic meter capacity tanks for gasoline, diesel and kerosene storage for the BOST Petroleum Terminal. The project will also include 20,000 cubic meter storage tanks for Liquified Petroleum Gas (LPG) and CBM which will facilitate import and export of products.

Work is expected to start on the construction of the Tema Natural Gas Secondary network system which will distribute gas to Independent Power Producers (IPPs) and Industrial facilities in Tema.

A new 70 kilometer (12-inch) twin petroleum pipeline linking the Accra Plains Depot to the Akosombo Depot will also be constructed as part of the Depot Expansion Programme. In addition, work on the second phase of the Debre Marine Project involving the completion of all onshore civil works and ancillary equipment will be continued.

The construction of LPG satellite storage depots at Kumasi, Savelugu and Mami Water (on the Akosombo-Ho Road) will commence.

Perspectives

The oil and gas sector is an emerging sector whose contribution to the overall performance of the Ghanaian economy is expected to increase going forward. Many projects are being undertaken in order to capitalize on opportunities in the sector. So far, the government has been doing well in tackling the challenges of being an oil producing country. We need to closely monitor how the 2012 initiatives will affect the sector

Programme	[illegible]	Status
Fertilizer Subsidy Programme		Partially 114,160 metric tons were supplied
Agricultural Mechanization	*Establish at least one agricultural mechanization service Centre per district *Acquire 100,000 metric tons capacity rice milling machine	Around GH cedis 13 million were invested toward this program so far
Irrigation Development (National Irrigation Policy)	* Accra Plains Irrigation Project, covering an area of about 5,000hectares	Partially
Fisheries Development Programme	*Establish a fish processing plant at Elmina *Undertake feasibility studies for the construction of a fish laboratory and quarantine stations, two harbours and twelve landing sites	Not on track
Youth in Agriculture Programme	*Continue to pursue the Youth in Agriculture Programme in the areas of block farming, livestock, fisheries and agribusiness development	On track. GH cedis 2 million have been disbursed
Livestock Development Programme (part of National Cockerel Programme)	*5000 household poultry will be supported with 100,000 brooded cockerels	Not on track
Export Development and Agricultural Investment Fund (EDAIF)	*An additional levy of 0.5 percent on non-oil imports will be added to Export Development and Investment Fund (EDIF)	Not on track
National Buffer Stock Management	*Acquire a modern rice mill	Partially
COCOA INDUSTRY	*Pay a total of GH¢50,793,724.00 as bonus to farmers for the 2009/2010 main crop season	
	* Finalization of the revised Cocoa Sector Development Strategy II	On track
	* CODAPEC (Cocoa Disease and Pest Control Programme) programme will continue and will procure spraying machines for the spraying of cocoa farms	On track
	*Farmers' Scholarship Trust Fund (2010/2011 cocoa crop year, provision has been made for an amount of GH¢2,400,000.00 to be paid into the fund)	Partially
	*Rehabilitation of Cocoa Roads (by COCOBOD)	On track
	* Cocoa Farmers Pension and Housing Scheme (Cocoa Farmers" Pension Scheme will commence with an initial amount of GH¢9.3 million and COCOBOD will continue to support the special housing scheme for cocoa farmers during the 2010/2011 cocoa crop year with an amount of GH¢868,000.00)	On track
	* Rehabilitation and Replanting of Old Cocoa Areas (by COCOBOD)	On track

2012 Policy Initiatives

Expansion of the Agriculture Subsidy Programme to include liquid fertilizers (bio-fertilizer) and improved seeds.

Continuation with the policy of providing one Agricultural Mechanization Service Centre (AMSEC) per district.

With support of the Korean Government, the Akumadan Irrigation scheme will be expanded.

Construction of the first phase of the Accra Plains Irrigation Project and construction of an irrigation dam at Mprumem for crop production.

Acquisition of another rice mill with a capacity of about 8.5 metric tons per hour.

Establishment of a Fisheries College at Anomabu in the Central Region.

COCOBOD will continue the treatment and control of the Cocoa Swollen Shoot Virus Disease (CSSVD).
Through the Hi-Tech programme, COCOBOD will continue to educate farmers on the correct application of fertilizer on their farms for improved productivity.

With the support of Government, COCOBOD will rehabilitate 1,000 hectares of small-to-medium scale coffee farms.

Perspectives

The agriculture sector has been for decades the backbone of the Ghanaian economy and is still playing a major role. The different initiatives undertaken by the government so far have been laudable, but have not yet yielded the desired optimal results of attaining food self-sufficiency and reducing our food import bill. In 2012, the initiatives that have been earmarked for implementation would have to be measured along this background

HOUSING

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Construction of Keta Sea Defense Resettlement Housing units	Achieved	111 two bedroom type 'D' houses and 45 septic tanks are constructed.
Use of local building materials will be promoted for use in delivery of affordable housing	Partially Achieved	
Careful supervision of important housing programmes such as STX, Satya and the redevelopment scheme so as to aid in the effective supervision of construction of housing units.	Partially Achieved	

2011 Policy Initiatives

Government will continue to support the Public Servant Housing Loan Scheme to offer loans to 129 civil and public servants.

Conversion of tower blocks into Offices of Parliament to be completed.

Government will continue to source funds for the completion of 4,720 Government Affordable Housing Projects.

Construction of 2.5km of the defense wall along Atorkor-Dzita-Anyanui shoreline, complete
the 1.8km beach road and also commence the construction of Phase II of the above mentioned project covering stretch of 1.0km.

In addition, construction on Ada and Sakumono sea defence works will commence.

Ensuring that the objectives of the National Housing Policy are achieved to support the private sector companies to commence the construction and delivery of safe, decent and income affordable housing units.

Perspectives

Completion of the affordable housing units will augment the huge housing deficit and further improve on livelihood of the citizenry to boost and sustain the economic growth. The Government should continue to engage the private sector through its Public Private Partnership (PPP) initiatives on the provision of decent and affordable housing units in order to meet our long term housing needs.

NATIONAL SECURITY

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Intensifying training programs in modern security and intelligence and upgrading Engineer Corps.	Partially Achieved	Programs currently underway.
Intensifying Air and sea patrols to protect the country's maritime assets.	Partially Achieved	Four Fast Patrol Boats (FPBs) have been acquired. Acquisition of two Fast Attack Craft (FAC) has been initiated, and vessels are expected by February 2012.
Setting up of Petroleum Security Coordinating Centre (PSCC).	Not Achieved	
Rehabilitation of Naval Slipway in Sekondi.	Achieved	
Completion of medical equipment upgrade and commencement of 500-bed capacity block at 37 Military Hospital.	Not Achieved	Work will commence in 2012.

Other Achievements:

First phase of the Ankaful Maximum Security Prison has been completed.

Established a Marine Police Unit as part of the National Policing Plan to ensure safety of the oil and gas industry.

Five ultra-modern ICT centers established at various Prisons and the Prisons Officer Training School.

A Special Drug Investigations Unit (SDIU) was established.

Facilitated the passage of the National Peace Council (NPC) act to codify land and family law so as to determine succession to chieftaincy titles and land rights.

2012 Policy Outlook:

Establishment of two Naval Detachments at Ada and Elmina to assist in regulating fishing activities whiles strengthening sea patrols.

Transforming part of James Camp Prison into a remand prison and Inmates Data Management System will be provided in all Central Prisons.

Reviewing current organizational structure of Ghana National Fire Service while increasing public awareness on the causes of fire outbreaks.

Improving ICT facilities at the Ghana Immigration Service to ensure efficient and effective enforcement of Immigration laws.

Strengthening disaster prevention and response mechanisms.

Undertaking a legislative review of the Narcotic Control Board to improve its efficacy in enforcing regulations covering narcotics in Ghana.

Perspectives

Government has, over the past decade, made consistent efforts to maintain the survival of the state through the exercise of diplomacy and the use of economic and political power, and projections for the 2012 fiscal year looks even more promising. In particular, provisions made to ensure the maintenance of critical infrastructure, effective police and armed forces to protect the nation from internal threats is a critical step in ensuring our long term national security needs.

CAPITAL MARKETS

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Establishment of a Small and Medium Enterprise development market by the Ghana Stock Exchange.	Not Achieved	
Developing a 5 year strategic plan for the Securities and Exchange Commission.	Achieved	

Additional Achievements:

Issue of special purpose bonds and promissory notes has been developed as part of an arrears clearance strategy.

A Financial Sector Strategy Plan II, which is to serve as a blue print for continued financial sector development in Ghana, has been approved by Cabinet.

2012 Policy Initiatives:

Establishment of a National Bond Market Committee in 2012.

Introduction of higher benchmark bonds. Seven and ten-year fixed rate bonds will be introduced.

Extending the Ghana Stock Exchange tax holiday for another five years.
The Ghana Stock Exchange will establish an SME development market to provide a viable source of raising relatively cheaper medium to long-term capital by creating an active trading platform for SMEs and rural banks to list on the Exchange.

Enhancing existing regulatory and policy incentives to enable Ghana become a competitive regional destination for long term investment.

Establishment of Ghana Fiscal Institute to offer programmes in Capital Markets and Securities.

Development of Ghana Commodity Exchange by the Securities and Exchange Commission in collaboration with the Ministry of Food and Agriculture, and Finance and Economic Planning.

Perspectives
The capital market is a critical component of Ghana's developmental paradigm. Government's initiative to establish SMEs development market will improve their access to finance and strengthen SMEs to enhance economic growth and generate employment. The introduction of the seven and ten-year fixed rate bonds will reduce liquidity in the short-dated debt instruments and extend the yield curve. Streamlining the activities of the Ghana Stock Exchange and overhauling the existing policy and regulatory schemes will further deepen operations in the capital market and enhance the country's investment competitiveness in the sub-region.

TRANSPORTATION

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Intensification of the law on Axle load limits	Achieved	
Continuation of the rehabilitation of the western railway line and the sub-urban railway lines in Accra-Naawam, Kumasi-Ejisu and Sekondi-Takoradi	Partially Achieved	The railway line is about 60% complete
Continuation of the policy of liberalizing the regulatory framework to attract more airlines and create investment opportunities in aviation infrastructure and services	Partially achieved	Four new Ghanaian airlines have been licensed to commence operation on both domestic and regional routes
Facilitation of the enactment and implem entation of the new road traffic regulations	Achieved	A National Road Safety Strategy III (NRSS III)has been developed and launched
Continuation of the lake safety enhancement programme with the provision of new ferries for Katekrachi, Kpando-Agordeke and Eyi –Amanfro crossings	Achieved	One ferrie was built for the Volta Lake Transport Company under the MIDA project and floated while a second one is nearing completion
Rehabilitation work on the Bulpe-Tamale, Agona Junction-Elubo, Neope-Ghana/Togo and Paga, Fufulso to Sawla roads will be undertaken to improve mobility	Not achieved	
The National Road Safety Commission (NRSC) will facilitate the installation and operations of speed cameras and speed limiters to improve road safety	Not achieved	
Both the Adome Bridge and Tema Motor Way rehabilitation will commence	Not achieved	

2012 Policy Initiatives

Better distribution and integration of the road network system by improving road maintenance finance.

Expansion of the electric tolling of roads to increase revenue generation into the Road Fund.

Intensification of the implementation of the Law of the Axle Load Limit as provided for in the Road Traffic Act 2004 (Act 683) and the ECOWAS Supplementary Act.

The completion of the projects: Motorway Overpass at Teshie Link Junction, concrete overlay of Accra-Tema Motorway and expansion, dualization of Accra-Kumasi and the Accra-Cape Coast

Takoradi Roads on the Public Private Partnership (PPP) scheme.

Upgrading 12 existing permanent axle load weigh bridges and construct 2 new ones. In addition it will construct 5 new steel bridges to improve access from Volta Region to the overseas areas in the Northern Region, 10 new toll plazas and upgrade 3 existing ones.

Assists MMT and ISTC to acquire new buses.

Reconstruction of the western rail under the China Development Bank Facility

Perspectives

The 2012 Budget indicates that the majority of the Ministry's focus was on the maintenance of road.

The completion of projects such as the Motorway Overpass will benefit motorists through reduction in traffic. However it is essential for the Ministry to invest in infrastructure of the road systems such as road signs and street naming. This also includes the lighting of roads in order to create a safer setting for motorist who use the roads.

TOURISM

Targets Outlined in 2011 Budget	Achievement Check list	Details
Implementing promotion techniques to make Ghana the preferred tourist site	Not Achieved	
Participation in eight international conferences and seminars to adapt best practices	Partially Achieved	The Ministry participated in 5 International Conferences and seminars to Showcase Ghana's products
Organizing tourism programs like the Paragliding Festival	Achieved	The Ministry organized the paragliding festival at Atibie-Kwahu
Implementation of National Tourism Act	Achieved	The Ghana Tourism Authority was established by the enactment of the Tourism Act 817
Establishment of Accra Visitor's Information Center	Partially Achieved	The Accra Visitor Information Centre is currently under construction
Organisation of the Ghanaian Cuisine programme to showcase traditional Ghanaian foods	Not Achieved	

2012 Policy Initiatives

Continuation of efforts to position Ghana as a preferred tourist destination in Africa.

The managing of the sector to become a major foreign exchange earner and employment provider for Ghana.

Focusing on marketing and aggressive promotion.

Promotion of Ghana in Key and emerging markets through participation in international and local fairs.

Intensification of online marketing of the country to advertise Ghana's products and services globally.

Launching of an advertising programme in the international media to boost the marketing drive.

Organisation of events such as the 10 PANAFEST Grand anniversary to generate foreign exchange for the country.

Completion of tourist facilities currently under construction in Saltpond, Agogo, Axim and Kpetoe.

Continuation of UNIDO-UNWTO Collaborative Actions for Sustainable Tourism as well as the undertaking of the ECOWAS Cross Border Parks Project. This will include the establishment of additional tolling booths.

Perspectives

The targets set in the 2011 Budget. However in order to attract more tourists the marketing campaign promoting tourism in Ghana should be increased outside the country. The target to make Ghana the preferred tourist attraction is not achievable in the short term and should be viewed as a long term objective. Therefore emphasis should be put on improving tourist attractions and the intricacies of the Ghanaian culture. The private sector should also be encouraged to create more business activities around our tourists sights including unique souvenirs and "must see experiences/activities" that will sell the tourist attractions.

ICT

Targets Outlined in 2010 Budget	Achievement Checklist	Details
Facilitating effective and efficient service delivery to the public through the implementation of e-application	NOT Achieved	
Intensifying its policy on Mobile Number Portability Solution	Achieved	It has been introduced with over 25,000 subscribers successfully ported in the first month of its introduction.
Ensuring smooth migration from analogue to digital terrestrial broadcasting	Not Achieved	Has been inaugurated. It will be adopted by December 2014 ahead of the International deadline of 2015.
Developing 50 Common Telecom Facilities for greater outreach	Not Achieved	
Establishing Network Operation Centre to check on fraud incidence on a 24/7 basis	Partially Achieved	The ministry on May 2011 launched the review of the National ICT Policy to include issues of Cyber Security, Broadband, Green ICT
Expansion of broadband infrastructure to cover all District Assemblies, schools, hospitals, and teacher training colleges	Partially Achieved	Licensing of three additional submarine optic fiber cables to increase bandwidth supply. This would provide Ghana with a Bandwidth capacity of 7.16 The ministry has supplied tele-presence equipment for use by 6 Regional Coordinating Councils

OTHER ACHIEVEMENTS

Better Ghana ICT programme has made a distribution of 3000 Laptops to school children.

Government has set aside GHS 5,000,000 to support an annual mathematics, science and Technology education programme. So far, 50,000 students are benefiting.

NCA has provided WIMAX license for the provision of wireless access to 550 locations.

2011 Main Initiatives.

The implementation of ICT for Accelerated Development Plans to enhance government services delivery will be facilitated.

The Ministry will embark on a nationwide publicity and communication campaign to educate the general public on the switchover to digital broadcasting to prevent panic buying.

Major uptake of e-government, the formal establishment of public Internet Governance Registry will be pursued and also policy guidelines developed to guide the migration from IPV4 to IPV6.

Expand infrastructure to promote access to ICT by constructing 5 innovation centers in addition to the ten which are on-going.

Pursuing the Technology Park project.

Government will promote extension of voice, Data and Video services to rural and underserved areas.

Perspectives

Implementation of e - application/ service will boost the flow of information; it will also ensure transparent and accountable governance.

The Government has to be commended on the implementation of Mobile number portability solution.

EDUCATION

Targets Outlined in 2010 Budget	Achievement Checklist	Details,
Designing more motivational packages for teachers	Not achieved	
Elimination of school under trees	Partially Achieved	1,226 school projects are at various stages of Completion
Abolishment of the shift systems	Achieved	
Provision of science, ICT and vocational facilities	Partially Achieved	21 Science Resource Centres in 7 Regions were completed and handed over whilst 57 are at various stages of completion
Continuous payment of capitation grants, free uniforms and exercise book	Partially Achieved	GH¢15.3 million was released during the year as Capitation Grant for 5,252,683 pupils in all public basic schools 1,258,690 uniforms and 39,536,119 exercise books were distributed to pupils
Training more competent teachers to handle people with disabilities and special needs	Partially Achieved	30 Heads and Co-ordinators of special schools in were trained. 20 special educators were also trained in Hearing Aid Programming

Other Achievements

A total amount of GH 36.8million was released by Get-Fund for the construction of lecture theatres, staff accommodation, library blocks, halls of residence, computer laboratories, auditoriums and agricultural engineering workshops which are at various stages of completion.

Mobile Library Services were provided with internet facilities in all the 10 mobile library vans

2012 Initiatives

Complete ongoing school infrastructural facilities especially in the senior high schools. Implementation of intervention packages such as the capitation grant, free school uniforms, free exercise books and subsidies to basic and senior high Installation of equipment in the University of Energy and Natural Resources in Sunyani and The University of Health and Allied Sciences in Ho. Anticipation that the first batch of students will be enrolled in the 2012/2013 academic year.

The NSS will establish 10 regional farms as part of its agricultural expansion programme

Improving incentive packages and motivation for teachers

Tools and equipment will be provided to students of special schools for the Vocational

Transition Training Programme to facilitate the transition of students from school to the world of work.

Ministry will continue with the training of 8 key personnel in each district in addition to the 488 already trained by GIMPA

Perspectives

It is imperative for the government to address the compensation issues in the education sector in order to prevent strike actions by teachers, a common phenomenon in Ghana.

HEALTH

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Implementation of the National Child Health Policy and strategy	Not Achieved	
Provision of training and certification to more preceptors as well as the implementation of the internet Human Resources System (IHRS) nationwide scale up plan.	Partially Achieved	Nurse training colleges were started at Dunkwa and Navrongo
Carrying of construction works on District Hospitals at Tarkwa and Bekwai, 4 Regional Hospitals and staff housing at Wa, Kumasi, Sekondi Takoradi.	Not Achieved	
Construction of 5 Polyclinics at Lambuisie, Babile/Brifo, Ko, Wechau and Han in the Upper West Region.	Not Achieved	
Establishment of blood transfusion centres at the Teaching Hospitals in Kumasi and Accra.	Not Achieved	
The Adopting of a community health care strategy following the passage of the Mental Health Act	Achieved	The Community Mental Health strategy was also designed to improve mental health services across the country

2012 Policy Initiatives

Train and equip sub-district teams in managerial and leadership skills in 50 districts to improve service delivery and scale up pre-emergency care.

Complete the institutionalization of National Health Accounts (NHA) and develop NHA II.

Establish Health Facilities Regulatory Authority, Ambulance Agency and Mental Health Authority.

Implement the Millennium Development Goal Acceleration (MAF) and activities that will address the gaps identified in the Emergency Obstetric and Neonatal Care (EONC) assessment.

Establish the baseline and introduce pneumococcal, meningococcal and rotavirus vaccines including second dose of measles vaccines.

Completion of 5 Polyclinics at Babile/Brefo, Wechau, Ko, Lambuise and Hain and offices for the Nurses and Midwives Council at Okponglo, Accra.

Perspectives

The 2012 Budget indicates that most of the 2011 target are yet to be achieved or are partially achieved. The incomplete targets comprise mainly of construction related objectives. It is vital for the government to maintain existing health care facilities across the country to continue to offer quality services. Further, creating a widespread reliable ambulance response unit would save lives and benefit citizens in all regions.

Targets Outlined in 2011 Budget	Achievement Checklist	Details
Upgrade of transmission and distribution network and scaling up of rural electrification for the realization of universal access to electricity supply by 2020.	Partially Achieved	Continuation with work on the 400MW Bui Hydroelectric and 132MW Takoradi 3 Thermal Projects.
Electrification projects under the national electrification scheme will be properly implemented	Achieved	406 communities connected to the National Electricity Grid under SHEP 4 phase 2 in Volta, Western, Central and Northern Regions.
Continual development of renewable energy in addition to the support of renewable energy business development for 20 private sector developers of hydro, wind, solar-PV and biomass resources	Partially Achieved	Work continued under the renewable energy programme. 20 community solar systems have been installed in Upper West, Northern and Brong Ahafo Regions and wind resource assessments in 5 potential sites commenced
Appraisal of Tweneboa complex, ENI Sankofa, and Deep Water Tano block	Partially Achieved	offshore deep water Tano, has successfully encountered oil in excellent. Quality sandstone reservoirs and the Sankofa 2A well has also been successfully drilled and appraised.
Development of gas master plan.	Achieved	The Petroleum Commission Act was passed and the Terms of Reference for the Gas Master Plan developed

2012 Main Initiatives

Expansion of the Power Generation Capacity from 2,000Mw in the medium term, the sector will commission the first unit of 133MW out of the 400MW Bui Hydro project into the national grid. The 132MW Takoradi 3 Thermal Project will be commissioned.

Improve system reliability and reduction of system losses, the 6 No. 33/11kV ECG Primary sub stations in Accra and Tema area under GEDAP will be completed.

Implementation of the Transmission Improvement Projects will continue with the construction of new Sub-stations and Transmission lines across the country.
Improve system reliability and reduction of system losses, the 6No 33/11kv ECG Primary sub-stations in Accra and Tema area under GEDAP will be completed.

Implementation of the Rural Electrification Project will be continued towards the attainment of the universal access to electricity by extending electricity supply to 1,200 communities in the Central, Western and Brong Ahafo Regions.

The Upstream Petroleum Sub-sector will continue with the development of the Gas Commercialization Master Plan and the Management of Block Acquisition.

The construction of LPG satellite storage depots at Kumasi, Savelugu and Mami Water (on the Akosombo-Ho Road) will commence. Also 33,990, 27,810 and 63,000 of 6kg, 13kg and 14.5kg cylinders, respectively and 270 pieces each of local brand of stoves will be produced.

Perspectives

The budget relating to the Ministry of Energy has been widely achieved over the past few years. This suggests that the projected initiatives for the year 2012 are achievable. The Ministry should be encouraged to continue to pursue programmes and projects aimed at ensuring secure, safe and reliable supply of energy to meet Ghana's development needs.

GUIDELINES TO CONTRIBUTORS

INTRODUTION

PentVars Business Journal is the official Journal of the Pentecost University College (PUC) and seeks to achieve the following:

- To open minds and change the perception of PUC Faculty members.
- To accord Faculty members the opportunity to research, write and publish so as to enjoy academia and to achieve:
  - Building the image and organisational value of the Faculty.
  - Building intellectual capital of Pentecost University College.
  - Building a change and renewal capability from a pure Bible College to a University Status.
  - Building the general Human Resource Capabilities.
- To contribute to Academic Leadership, Scholarship in Teaching and the overall intellectual life of the University College and Ghana.

The PentVars Business Journal (PBJ) was originally the brain child of Prof. K. B. Omane-Antwi of the Faculty of Business Administration (FBA). It was conceived as part of his vision and programme to ensure that Pentecost University College (PUC) becomes a Centre of academic excellence. It was also intended that the academic/professional refereed Journal would encourage young Faculty members, both within and outside PUC, to improve their writing and research skills.

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The Editorial Board is made up of fourteen (14) top professionals/eminent academicians (five faculty members, two (2) administrative staff and seven (7) external members) who are expected to formulate editorial policy, review articles for quarterly publications, and take professional decisions relating to the Journal. In addition there are two (2) external members outside Ghana (Canada and USA).

PUBLICATIONS

PentVars Business Journal is published every quarter of the year.

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- Social Sciences
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