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GAINS FROM OBAMA'S VISIT?

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EDITORIAL

BARACK OBAMA'S VISIT TO GHANA:

The Economic Implications

The visit of the first black American to Ghana marks an important milestone in the history of the country. This is for three reasons. First, he is the first American President of African descent and so many Africans view him as 'one of their own'. Second, this is the first visit that President Barack Obama is making to Sub-Saharan Africa. Third, the visit is being made at a time when the President has been in power for just about six months, and the economy of the United States of America, the most powerful nation, remains in recession.

There is no doubt that the visit has an 'African agenda'. Jonnie Carson, the Assistant Secretary of State for African Affairs, explains that one of the reasons why President Obama chose Ghana is because it serves as a good example of the 'power of democracy' for all Africa. Furthermore, he explains that the visit in part acknowledges Ghana's success and progress on both economic and political fronts. The question being asked by many is whether this historic visit will translate into economic gains for Ghana. The economic benefits of the visit can be looked at from two perspectives. There are direct economic gains that could come from increased US aid to Ghana. This is in addition to benefits that could accrue to individuals in less direct forms from the sale of all sorts of regalia. In relation to this latter form of benefit can be included the expected increase in gains by the country's tourism industry.

President Obama's visit is the third by a US President to Ghana. This historic visit will, in particular, go a long way to cement and boost US Ghana relations, and help to promote Ghana's image as a politically safe place for international business.

Already there are indications that FDI flows to Ghana have been favourable this year. The Ghana Investment Promotion Council (GIPC) reports that the total new investments for the first quarter of 2009 amounted to US$372.32 million, comprising US$363.34 million worth of re-investments (capital goods imported) and US$8.98 million equity transfers for new projects registered. This reflects an increase of 45.1% over the total new investments for the corresponding quarter in 2008. This in part can be attributed to the efforts being made by the Government to restore stability and confidence in the economy.

With regard to tourism, the African American community in Ghana celebrates events which originate from the black diaspora, such as the Black History Month and 'Juneteenth' in Ghana. In 1999, Ghana was the venue for the Africa African American summit which attracted more than 3500 delegates and 19 nations, including some 1000 African Americans. Furthermore, in 2001 the parliament of Ghana passed legislation, 'The Right to Abode Act' which allows persons of African descent in the Diaspora to live and work in Ghana indefinitely. The symbolic return of the mortal remains of two slave ancestors back to Ghana through the 'door of no return' of the Cape Coast Castle, the introduction of the Pan African Historical Theatre Festival (PANAFEST) and the Emancipation Day underpins Ghana's position as a destination for the black diaspora.

In addition, The Africa's Golden Gateway Project in Washington aimed at stepping up Ghana's efforts at attracting American investors and tourists, the 'Joseph Project' to encourage African Americans to return to the homeland to reconnect with their roots, and President Obama's choice of visiting the Cape Coast Castle with his African American wife, creates huge opportunity for the promotion of 'Roots Tourism' in Ghana.

It should be noted that, blacks of African ancestry form about 13% of the American population, and represent a growing population in both numeric and economic power.

Ghana should take advantage of Obama's visit to reach out to African Americans. It is therefore, imperative for Ghana to recognize the African American as a niche and design proper marketing activities to position herself in the minds of African Americas.

As Kenya capitalizes on her Game parks to attract tourists, and Egypt uses her pyramids, to effectively position herself as 'the cradle of civilization' so Ghana must differentiate and position herself to take advantage of its political stability, rich history and cultural treasures to make gains necessary for economic growth.

Truly, Ghana must differentiate and position herself to permanently reap continuing economic gains from Obama's visit.

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SURVIVING THE CREDIT CRUNCH ERA: A WORD OF ADVICE TO ACCOUNTANCY GRADUANDS

| *K. B. Omane-Antwi* |
Deputy Chairman - Editorial Board and Vice Rector - PUC

INTRODUCTION

Today's economic environment is unstable, hostile, complex, uncertain and diversified. It is also explosive, in that it encompasses several sources of change. Truly, the key success factors in today's economic meltdown are creativity, the capacity to innovate, management ability, logic and critical thinking, responsiveness to new economic and technological conditions and the ability to anticipate customers' needs. Thus the accountant who is only good in number crunching would certainly give way to what can conveniently be referred to as a 'decision accountant' ready to manage an enterprise in a dynamic global economic environment because he understands the meaning behind the figures i.e. figures can talk to him and he can hear, understand and talk back to the figures. Thus he can 'figure out the figures' for decision making, thereby ensuring the competitive success of the company he serves or play a vital role in the maintenance of fiscal stability and macroeconomic management of a country.

No wonder, corporate Ghana today is crying for accountants to become managers of the economy because as accountants we are the 'priesthood of industry, good governance, transparency and accountability' just as lawyers became the priesthood of industry immediately after the Second World War.

THE CREDIT CRUNCH ERA

Today, the world faces its most serious, synchronized downturn since the 1930 recession.

Financial markets remain dysfunctional and largely closed to new lending. Banks and other institutions are under tremendous stress. The economic woes in the USA was written on the wall and was prophetically written in the Journal of Accountancy, America Institute of Certified Public Accountants (AICPA) publication of June 2006. Dr. Paul Nadler of Rutgers University wrote and I quote "the United States has some real economic problems that have been hidden under the tremendously easy credit caused by foreigners reinvesting their balance of payments earnings in American Securities. Eventually this inflow will have to end as foreigners begin to use these funds to improve their own people's standard of living. At that time, the excessive borrowing, low savings rate, and house price inflation will have to be readjusted, a development that may hurt many who have lived on cheap credit and inflated housing value."

True to Dr. Nadler's prediction, the USA and other developed countries are suffering from debt deflation, a phenomenon in which falling asset prices reduce the working collateral available to finance debts. The current situation was first identified by Irving Fisher in 1933 after the great 1930 recession. It is a vicious cycle and the antidote is to use what Fisher called 'quantitative easing' which in simplistic terms means the Central Bank has to expand its balance sheet in order to offset private sector balance sheet contraction by printing money to pay for real asset. Pumping money into the economy which is nicknamed "helicopter money" has the danger of sparking inflationary problems. In 2002, Ben Bernanke, then a Federal Reserve Governor of USA quoted an argument by monetarist, US economist Milton Friedman that money is literally dropped from helicopters (printing money) if an economy slid into deflation and the action will spark inflationary problems.

The USA, UK, Japan and other developed economies are experiencing apparent debt deflation which seemingly requires economic stimulus or bailout packages to ginger spending with the attendant multiplier effect concept in economics so as to ensure that managers of the economy can navigate, thrive, prevent and sustain businesses from collapse.

CREDIT CRUNCH AND ASSOCIATED PROBLEMS

Indeed, the world is going through a period of financial volatility, where fear of the word recession has rapidly given way to the fear of the word depression. Thank God, the world is not necessarily experiencing a depression as such but a 'credit crunch'.

In the Daily Graphic Newspaper of April 16, 2009 a colleague (Mr. Adu Anane Antwi), an accountant, defined credit crunch in his article as "a credit crunch (also known as a credit squeeze) is a reduction in the general availability of the conditions required to obtain a loan (or credit) from banks and other lending institutions".

The global credit crunch has impacted negatively on Ghana through:

- Drastic decline in inward foreign remittances
- High inflation
- Upturn in interest rates
- Fast depreciating cedi
- Decline in exports
- Weakening commodity prices
- High unemployment

SURVIVAL TACTICS

What can we do to survive the credit crunch era?

It is a regrettable fact that jobs (both blue and white colour) will be lost in both the public and private sectors of the economy.

Professor William Ahadzie, Deputy Head of the Centre for Social Policy Studies at the University of Ghana, speaking at the spring meeting of the World Bank and International Monetary Fund (as reported in Business and Financial Times May, 6, 2009) advised that "We have developed a National Youth Employment Programme that aims to actively engage youth in productive employment where they are needed as health extension workers, waste and sanitation workers, teachers, and as paid interns in industry."

AGRICULTURE THE KEY TO ECONOMIC DEVELOPMENT

For me, agriculture is an important source of growth that we need to refocus on to diversify the economy.

I am happy that the 2009 Budget of H. E. Professor J. A Mills strongly advises the promotion of commercial agriculture as core policy in his administration to address some of the problems in the current global economic crisis. I am looking forward to an innovative agricultural policy that will entice the youth to till the land because it will provide security by ensuring that:

- Land acquisition problems will be tackled.
- Individuals or groups going into agriculture swill be paid minimum wage on monthly basis as an incentive until harvesting commences.
- Agricultural equipments will be made easily available to till the land.
- Value addition (processing) and post harvesting losses will be planned to ensure sustainable income from production.
- A farmers' social security system will be developed to cover old age pension.
- Soft loans (credit) for farmers will be available Markets will be created for production (both raw and value added products).
- Feeder roads network to farming areas will be developed.

I am convinced that agriculture holds the key to our development as a country.

ENTREPRENEURSHIP

Accounting graduates should also explore other self employment ventures (entrepreneurship). This is the time for graduates to put their entrepreneurial skills into good use as the government works to invigorate the economy by providing the stable environment for Small and Medium Enterprises (SMEs) to thrive.

Graduates should go into productive ventures rather than buying and selling activities, and develop business plans that can be sold to banks for credit support. The government is being called upon to develop institutional framework to make credit easily accessible to young entrepreneurs.

KEY COMPETENCIES IN LOOKING FOR WHITE COLOUR JOBS

No matter what we say or advise there will be many among recent graduates who will be scouting for non existing white colour jobs. My advice to such individuals is :

Remember that in the credit crunch era employers are increasingly making use of competency based interviewing techniques. Traditional interview focuses primarily on information on curriculum vitae which can lead to subjective decisions, whereas competency based questions will be directly linked to essential functions of the role you can play in the company. What this means, is less of a focus on traditional job specification, and more emphasis on defining roles by key competencies. These include team work, planning, results orientation, problem solving, strong ICT etc, so the ability in these sorts of areas, is particularly important.

Additionally, think carefully about your strengths and weaknesses. The key is to play to your strengths and weaknesses and as far as possible to turn your weaknesses from negatives into positives. Employers know that we all have weaknesses but handling them positively, shows that you have found ways of overcoming them and developed strategies to tackle them.

A good start is to sit down with friends you trust and ask them to give you an honest appraisal of your personal strengths and weaknesses and then relate those personality traits to the workplace. So if you are sociable, confident in groups, and empathetic to other peoples' views, this could demonstrate that you are a good team player and can liaise with people at different levels. If you pride yourself of never being late to a function then this could demonstrate that you will go the extra mile to meet deadlines.

POSITIVE SPIN

And what of weaknesses? Well if you tend to be a bit forgetful and can only function if Microsoft outlook reminders pop up on screen with a steady stream of reminders, you present this in a way that demonstrates that you are an organized worker with plans and deadlines.

Finally, if you are fortunate enough to be selected for interview, remember that every single question you are asked on the big day will effectively boil down to one: 'How would you fit into this company and do a job better than any of the other people we are talking to?' and it's up to you to demonstrate how.

DEVELOPING YOUR OWN MODEL FOR THE FUTURE

If you are lucky to get a job in this credit crunch era then you should count yourself as a few of the lucky ones and immediately begin to develop your own model for the future with the prime aim of contributing to the growth of your organization and your own growth. The following are key:

1. Tolerance and open-mindness.
2. Perseverance and determination.
3. Respect for and caring for others.
4. Cooperation between other members of society especially the community you live in.
5. Self confidence and sense of personal work.
6. Independent mind, importance of individuality.
7. Enthusiasm.
8. A willingness to listen and to accept advice.
9. Self-discipline and exercise of self control i.e. being in control of oneself particularly important when faced with issues of alcohol and drugs.
10. A sense of social justice.
11. A right balance between work and leisure.
12. Always remembering that your health is the true and the biggest asset you have.
13. The development your political, moral and religious beliefs.
14. The values of family life.

15. The appropriateness of sexual relationship only within long-term, stable partnerships.

WORKING YOUR WAY TO THE TOP

With the above 15 point model, you will be able to work your way to the top through:

1. Creating a productive work ethics and environment.
2. Developing responsibility.
3. Making decisions and solving problems.
4. Communicating effectively in the workplace.
5. Nurturing good working relationships.
6. Planning in harmony with God's will
7. Escaping the trap of tradition.
8. Managing time.
9. Condemning of all types of unfair discrimination.
10. Making peace between people and nature.
11. Picking your advisors carefully (Proverb 12:16).
12. Looking for people who can honour confidence (Proverb 22:10).
13. Allowing people who know your situation to help you (Proverb 17: 8).
14. Ensuring integrity and courtesy, the two admirable qualities in a person (Proverb 22:11).
15. Looking straight ahead, and fixing your eye on what is before you. "Mark out straight path for your feet then stick to the path and stay safe. Don't get sidetracked, keep your feet from following evil" (Proverb 4:25-27).

In summary, the above pieces of advice will accord you some secret keys in life. In business, bad habits can have unintended consequences. Even the best employees do things without thinking that can have a detrimental effect on their careers. Through networking, workshops/Seminars and Continuing Professional Development (CPD) you could avoid the following behaviours that can impede career advancement:

- Don't talk too fast: speed makes what you say seem unimportant, If you are heard at all
- Don't offer too much detail: when asked the time of day, do not explain how to build a wrist watch.
- Don't be judgemental; almost everyone is judged a fool by you.
- Don't be self-critic: people do not like to hear you talk about your own inadequacies.
- Don't use body language and speaking voice-; everything from nervous gestures and poor posture can convey the wrong impression.
- Showing determination in life-; where determination exists, failure cannot dismantle the flag of success.
- Humility is the gateway to achieving and sustaining your prophetic blessings.

Finally, it is time to know that as a fresh graduate you are only a beginner and there is more life ahead. Nelson Mandela wrote in his book 'Long Walk to Freedom' as follows: "I have walked that long road to freedom. I have tried not to falter; I have made mis-steps along the way. But I have discovered the secret that after climbing a great hill one finds that there are many more hills to climb. But I can rest only for a moment for with freedom come responsibilities, and I dare not linger, for my long walk is not yet ended".

Education has no end. There is nothing like I am a graduate and so I am a free person ready to enjoy life. Self development, further education, networking with fellow graduates will be an ongoing affair in your working life. This is the time to prove that you are a man or woman of substance that can shoulder responsibilities and play a leadership role in Ghana.

CONCLUSION

The down turn is not discriminating against industry sectors, making it difficult to identify areas of strength. It looks like the global economic meltdown could create a long, painful quasi depression, a period of mass unemployment, a calamitous drop in confidence and a continued credit-squeeze.

For any finance professional (College graduates included) one of the main features of the credit crunch era is an unprecedented 'war for talents' where undoubtedly there are roles available for the best candidates. Competition is now much more intense, and today's finance professionals need to have the ability to demonstrate how they can really add value to a potential employer so as to get the much needed job which continue to shrink on the job

market.
On the other hand, you can find solace in self employment especially in agricultural ventures. Entrepreneurship is the 21st Century answer to unemployment especially in this current gloomy economic climate being experienced globally.

With the Obama "Yes we can do spirit" and President Mill's 'Change forward for better Ghana' slogan you can definitely survive and change your destiny in the credit crunch era.

NOTE: This paper was initially delivered as a talk to Association of Polytechnic HND Accountancy Students (APHAS) Annual Congress in Kumasi Polytechnic on May 22, 2009 by Professor Kwame Boasiako Omane-Antwi, Vice Rector, Pentecost University College and National Patron of APHAS.

COMMUNICATING EFFECTIVELY IN A TIME OF CRISIS

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The current global financial and economic turmoil has serious negative consequences for even the most developed nations of the world.

It is no wonder that all over the world employees are distracted and confused right now "Is my job safe? What will happen to my company? What about our pension? Are we entering another Great Depression?"are questions being asked

Turbulent times are an opportunity for leaders at all levels to display their true leadership qualities. While they may not be able to provide specific answers to every question, leaders have a crucial role to play in instilling confidence and encouraging employees to focus on the things that will strengthen and secure the future of their businesses.

Nick Howard (a College Principal and Senior Communication Consultant of Mercerhe), suggests to leaders, eight strategies for handling economic crisis when the pressure is on:

Throw out the Rulebook
Conventional wisdom says, "When you have nothing to say, say exactly that nothing." However, in this new world of uncertainty, the opposite is true. Keep talking to your employees, and fill any communication vacuum with up-to-date official information, rather than allowing employees to be fed with rumours.

Do not Assume Control
Long gone are the days when CEOs could control what employees read about their company. The internet, 24-hour news reporting, instant messaging, and instantaneous worldwide communication now mean that employees may know things about their company almost as soon as, or even before, the leader does. It goes without saying that employee confidence will take a knock if they believe the story

the leader is telling the outside world is different from what it actually is. Keep your internal communication consistent with the external one.

Say what will not Change

Use the core foundations of the business to instil confidence in your employees. Let them know that while markets may be in maelstrom, your core values the way you believe people should be treated, your belief in outstanding customer service, and so on will not change.

Note what will Change

Tackle the concerns of employees head on, and acknowledge what may happen in the future. Set out agreed credible, possible outcomes and what you are doing to make them happen.

Keep Staff Focused and Informed

Be clear about the things your employees can do to make a difference: the things that will keep the business going, maintain cash flow, keep expenses down, and retain customers. Give employees a 10-point action plan of the key things that should be on their minds every day.

Get Line Managers Talking

Surveys undertaken to determine who the public trusts as a source of credible information shows that authority figures, including CEOs, are rated below "people like me". Get your employees talking with their managers and supervisors, and ensure that these discussions are supported with official materials and training.

Educate your Employees

Employees are seeing a lot of confusing, and often conflicting, information in the media. Help them to understand what is happening by providing basic education in financial matters. This will help to develop a workforce that is more commercially astute for the future and ensure that customer service or front desk staff can answer questions accurately and confidently. You could also give them questions and answers that include detailed points about how the company is affected by market conditions

Walk the Talk

Leaders should be out in the workplace showing employees what to do and how to behave. In times of uncertainty and change, leaders do not just communicate the message; they should be the message.

In summary, the following key points are to be considered in turbulent situations:

- Keep communication channels open, make it available and consistent.
- Be honest with staff about what will and will not change.
- Describe the expected positive outcomes, and what employees can do to enhance them.
- Educate staff so that they, and your customers, would feel confident.
- Ensure that your leaders "walk the talk". Educate staff so that they, and your customers, would feel confident.

BRANDING STRATEGIES FOR GHANA INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SERVICES

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Builders, fashion designers, physicians, business executives, and people generally need ICT services in everyday vocation. Computer software changes how architects think about buildings, surgeons about bodies, farmers about products and business executives about trade. It also changes how teachers think about teaching and how their students think about learning.

Local players in the ICT sector recently expressed pessimism about Ghana ICT companies. They believe that the nation stand to lose heavily on ICT services unless national policies were reviewed to promote indigenous creativity and innovation. This was an outcome of a focused group discussion at Science and Technology Policy Research Institute (STEPRI) Accra, Ghana on April 8th 2009 by LICOM project. LICOM project is a sub-regional study, which aims at contributing to a better understanding of international challenges of trade liberalization in ICT under the World Trade Organisation (WTO) General Agreements on Trade in Services (GATS).

The question of trade liberalisation as well as how our local ICT companies must compete with foreign companies is not treated in this article. The subject has been consciously put outside the scope of this article. This article however identifies certain brand strategies for our Ghanaian ICT companies. Awareness of these can help local ICT firms understand the structure of its industry. It could assist them stake out a position that would be more profitable for their organisations. Applying these strategies help the entire nation to gain on ICT services, instead of losing out.

Building and properly managing brand equity must become priority for Ghanaian ICT companies as customer loyalty and profit often flow from strong brand equity. Brands are designed to enable customers identify products or services which promise specific benefits. They create a set of expectations in the minds of customers about purpose, performance, quality and price. It allows the company to build added value into products and to differentiate them from those of other competitors.

Initiating and implementing series of proactive strategies help local ICT businesses put up stronger brands. Further in this article, a description would be made on some key strategies that Ghanaian ICT firms could make use of in developing a strong brand. The starting point for this is the need for ICT business to manage cost efficiently. It would also be explained why a company needs to innovate and invest in its services. Finally, describing how a business can learn to get close to its customers and the necessity to experiment with bolder strategies would be explicated.

Understanding Cost Strategies

Understanding cost structures is essential to effective strategic development of a brand. Cost strategies affect brand development in many ways than one may realize. Understanding and managing costs in business can have a significant impact on brand development. There are a number of actions that can be taken to manage cost structures. Many organisations may be helped by undertaking an exhaustive review of overall cost structure. Mismatches become clearer and excesses are quickly dealt with. Weeding out weak investments, eliminating services and reducing service levels helps reduce costs. Understanding cost strategies gives organisations the ability to see things as they really are. It eventually helps companies allocate the necessary resources for brand development.

Underlying Past Successes Strategies

Past successful strategies may not be presently useful for brand development. Though a strategy today is viewed as successful, continuing it comes at a price. A company doing well may not realise harmful tasks. While past successes may give us confidence that we are doing something right, they do not necessarily tell us *'what'* or *'why'*. Thus it would be good for Ghanaian ICT companies to consider .this to avoid over reliance on past strategies. Keeping successful strategy is important. More important, nonetheless, it is crucial to know about new approaches. Since every so often companies need to correct their strategies, it cannot be wrong to act on new strategies found even if it means changing strategies.

Managing Price Strategies

Paying close attention to prices, customers are much more likely to know exactly how much they are paying for the brand. Customers are not so easily baffled these days. For ICT services such as buying and installing software, they are helped with many comparisons on the Internet, social networks and elsewhere that spread the word about how to get the best deals. To help the brand, the local Ghanaian ICT business must strategize good basis for aggressive pricing. Understanding one's services better affects the economics of the business customer. More likely a way has to be found to minimize pain of re-pricing brand and maybe even make a win-win. At the present, our ICT companies need to manage their price strategies for their brands more aggressively than ever.

An initial strategic step would be to increase price as key commodities prices increase. Most businesses that rely on ICT services have no choice but pay for essential services that make their companies operate. The challenge here is when to increase price, how much how often, to what extent and the like? What are the ways to increase brand price that people will continue to pay? Growing prices on services increase customer willingness to change. Also competitors take advantage of price increase to lure customers away from other competitors. Nevertheless others recommend that price increase can be done if it is followed by excellent communications with your clients.

Taking initiatives and cutting down price is another point. Sometimes a number of companies cut down prices promptly and deeply. It is not uncommon to see competitors do likewise as seen in promotions, adverts, floats and many more. As a current practical example, HP and Dell and a number of strong brands in the personal computer market are cutting prices worldwide. Clearly this decrease could please or make some consumers feel better for a little while. However, in creative writing, countless people are of the view that prices of brand products should never be cut down. There is usually the assertion that *'Brands'* are not to be treated as *'commodities'*. For a fact many believe that price hack could erode brand equity and sink earnings. Several analysts therefore suggest that ICT companies can increase the value of their customer purchase by offering extra services for free. It is assumed that costs less on bottom line, have a positive impact on consumer. The impression is that the brand understands challenges of the economy and takes the opportunity to thank loyal consumers with the promise that they as preferred producing client will do whatever it takes to ensure consumers enjoy the products they love.

Brand Portfolios Strategies

Smart ICT companies regularly trim down brand portfolios to maximize profits. If you do the job well, one can serve customers better with the outstanding brands. Weak ICT company brands should not harshly compete with strong brands for resources and market share. Most businesses would do well in examining their brand portfolios to check if they might be selling too many brands, identify weak ones, and kill unprofitable ones. They need either to merge them with healthy brands, sell them off, or drop them completely.

Improvement Strategies

Adaptability and innovation are what keep the hard-hitting firms viable and competitive. ICT companies in their pursuit to build strong brands need to consider their existing processes for creating innovations, pinpoint their unique challenges, and develop ways to address them. Innovation does not require re-inventing the wheel. Sometimes it just means combining things that already exist. At times, it takes a different perspective to come up with an innovative solution to a problem. Remembering that positive changes from time to time come with some immediate drop-off can also help prepare an ICT company changing its brand. It is well known in the ICT industry especially with websites that re-designs generally cause a significant traffic drop-off, but often that traffic comes back stronger than ever. If the innovation is an improvement, it would be a good decision to change the branding. Close to rule commentators often propose gradual change in branding though to help prevent the drop-off disorder.

Consumer Value Strategies

Under pressure to keep costs down, consumers may only look at cost. Helping consumers to understand and believe in brand superior value is an important strategy in building a strong brand. "By creating more consumer value, Dell Computers charged from nowhere and became leaders of the personal computer industry," reports Michael Treacy and Fred Wiersma in their paper *'Three paths to market leadership'* which appeared in the January 2003 edition of the Harvard Business Review. Critical to creating consumer value is the customers' definition of the market today. Consumers today have a concept of value that includes convenience of purchase, after-sale service, and dependability. Value creation is a joint experience between the brand and the consumer. Again value varies with each customer. In delivering superior services, the value created need to be measured. Reliable measuring of the value created makes it possible to provide quality services to consumers. It also helps to win their trust.

Getting Closer to Customers Strategies

Loss of humility is the nuisance which most brands face when they grow big. In its place arrogance takes over. Consequently the company looses contact with its customers. A case in point is the Dell Computer story which was reported on November 24, 2003 by Linux.com. For some years Dell moved their technical support to India. Cultural differences and script reading was not helping Dell's reputation with the United States customers. Later they realized it and moved support of their higher margin business customers back to the United States.

Potential customers often want to meet representatives, either in person or on the phone, before committing to an application, even if they have done all their research already. Some companies in their search to avoid this difficulty have created a department for customer engagement. Some senior managers are given the title "customer champions". Their responsibility is to ensure they communicate with customers, understand them, their needs, wants, problems, experiences and then drive that knowledge throughout the organization to ensure brand performances track upwards. Getting closer and communicating with the customer is the key to listening to the market. The brand can for that reason be shaped to meet customers demand.

Thinking Creative Strategies

Building a strong brand in the ICT industry is all about creative thinking. Every bit is about ideas. Ideas have to be tapped from all sections of the company especially from the areas where you least expect. And if the company or its clients does not produce enough bright suggestions, maybe someone else does. Either through internet or from organisations network, new ideas can be searched for. Even a competitor may be approached for ideas. Acquiring something new giving them a test might be a good way to accelerate development of the brand. Prioritising acquired information may be necessary. The challenge here is to make out which ones to take priority, which ones will be acted on, and which ones the brand really cares about. Most often new business ideas and concepts for the brand are the one that requires more reinforcement.

Retaining Customers Strategies

In a complex market like ICT, the observation that with the right "messaging", you can guide people to patronise your offering and getting them coming back does not hold. Buying an ICT service or product is demanding, because unlike physical goods, it is hard to define what you want ahead of time. In the Ashanti Region, specifically Kumasi Anloga, one can point to a table and say, "*something like that*." One cannot always do that with software. For technological services, retaining customers is often very difficult. Using the right survey methods does not guarantee customer retention as customers do not always say what they really mean. Since the customer wants everything or nearly everything, the distinction of nice to have or got to have must be clearly visible to the company. The features that customers really want are what need to be invested in to bring the customer back.

Risk Taking Strategies

In building a leading brand, Technology Company could do with taking risks. Willing to put the organisation there when others are worrying about may be a requirement. Hitting a long range shot at goal if one is not aiming for the post is a challenge. Having the hunger and boldness to act on an initiative is essential. "Entrepreneurship is the relentless pursuit of opportunity without regard to resources forms the centre of the entrepreneurial mindset" says Harvard Business School Professor Bill Sahlman in his book '*Manage like an Entrepreneur*' published on January 2005 by Harvard Business Press. "Entrepreneurs like Ralph Lauren and J.K Rowling started with fewer resources," reports *iannhungry.wordpress.com from the article 'how customer-driven innovation helps beat the recession' published in June 16, 2009,* "yet they have been able to build worldwide household brands." Why, because they did have the guts to back their ambition. Although taking risks plays an important role in decision making of building a brand, it can be dangerous in complicated situations. Decision makers need to know exactly how it works to take risk and when it tends to be right or wrong to take risks.

Practical Brand Strategies

Despite the fact that this listing is not exhaustive, this sketch suggests some practical brand strategies for local ICT businesses. First, discipline around containing cost and ability to provide is a basis for aggressive pricing. Then producers may examine core customers changing needs and prepare consumers to believe in the superior value of the brand. Studies show that ICT companies that support their brands and adjust their strategies respond better to ongoing shift in technological demand. They are more likely than others to flourish especially during these recessional times.

MAIN ARTICLES

IMPROVING THE STRATEGIC INVESTMENT DECISIONS: THE ESSENCE OF ACTIVE DECISION SUPPORT SYSTEM

Ibrahim Zubairu

Abstract

Strategic investment decisions are both important and difficult as they concern very serious issues requiring a lot of investment in terms of finance and manpower which is considered as important and critical in any serious organisation. These strategic investment decisions are more easily understood and controlled than most of the other activities undertaken within the framework of strategic management. Traditional approaches to strategic investment appraisal have been criticised on a number of grounds among which are their narrow organisational perspective, exclusion of non-financial benefits, overemphasis on short-term, faulty assumptions about the status quo alternative, inconsistent treatment of inflation and promotion of non-value adding behaviour. Yet in spite of these apparent flaws with traditional investment appraisal techniques, businesses continue to rely upon them; as a consequence, there is a possibility not only for misguided investment decisions but also the possibility of a perversion of senior manager's business imperative: instead of investing in the company's long-term core business, senior managers become side-tracked and start investing for short-term cash flows. In the light of these criticisms, two basic approaches that can be taken to develop alternative investment appraisal techniques were proposed; with the first approach involving the modification of the traditional investment analysis framework to correct its various technical shortcomings such as inflation inconsistencies, the use of inappropriately high discount factors and its narrow focus expanded to include commonly neglected benefits such as improvements in flexibility, improvements in information quality, timeliness etc. while the second approach involves reliance on analytical framework that represent significant departures from the traditional methods; such as strategic cost management, the multi-attribute decision model, value analysis, the analytical hierarchy method, uncertainty method etc.

Beyond these available alternatives, this paper concludes that since Hyperknowledge, an active support systems have been used as problem solving and decision support environments for strategic management and for strategic decision making in a number of industries in recent years; it appears that the logic of a strategic investment decision is complex enough for a decision maker to benefit from the use of a hyperknowledge environment, and that a hyperknowledge support system could help a management team to control the problems with deciding, launching and following up on strategic investment projects.

1. Introduction

Strategic investment decision making involves the process of identifying, evaluating and selecting among projects that are likely to have a significant impact on the organisation's competitive advantage. More specifically, the decision will influence: what the organisation does —set of products and service attributes that define its offerings; where the organisation does it—the structural characteristics that determine the scope and geographical dispersion of its operations; and how the organisation does it the set of operating process and work practices it uses. The strategic investment decision making process is arguably one of senior management's greatest challenges where there is a critical need to get these decisions right. That is to say if the decision proves successful, the organisation reaps major strategic and operational advantages; but should the decision be wrong, either an important opportunity is forever lost by virtue of the organisation's failure to invest when hindsight it should have, or it has needlessly squandered substantial resources by virtue of making fruitless investment.

This research study found in Carlsson and Walden (1995) that recent development in knowledge based systems technology offer an effective approach to building management support systems for strategic management. The scope of strategic management is broad and the issues involved are ambitious, ambiguous and non-routine. The executives and managers involved should have the ability to break away from the cognitive constraints of their everyday activities and capability to understand the context in which the company is operating. Also, their future strategic context should be outlined and understood, which requires a capability to conceptualize key strategic issues, their corresponding action programs and their expected consequences.

2. Overview of Strategic Investment Decisions and Knowledge-base Systems

In strategic management, it is often necessary to make difficult and important decisions on the basis of imprecise information and incomplete knowledge. In order to cope with the complexities involved the managers need to reduce a context of almost infinite proportions to a manageable personal conceptual framework. Knowledge-based systems have the potential to be very useful in this respect; they can be used to support the building and enhancement of competitive advantages and to help solve complex strategic problems [Mocker (1993)]. There exist several supporting evidence of this in a number of projects from 1993-1998 in which Carlsson et al (1999) have implemented knowledge-based support systems in the forest products, the insurance, the telecommunications, the alcoholic beverage, and the forest machinery industries [see Carlsson & Walden (1997), Walden et al (1996), Walden & Carlsson (1995)].

In the light of this evidence, it will be assumed that there is a reasonable basis for assuming that knowledge based support systems will be useful tools for handling strategic management problems. Butler et al (1993) have studied strategic investment decisions in a wide range of UK and International Companies. Their perspective was one of organizational decision-making theory, which is why they found a number of factors relating to judgment, negotiation and inspiration to be of importance that is more or less qualitative factors. In structured interviews with their senior managers the most important attributes for judging the relevance and potential effectiveness of investments were, nevertheless, quite traditional and in the following order: (i) fit with corporate plan, (ii) (expected) internal rate of return, (iii) Payback Period, (iv) worst case scenarios for internal rate of return and (v) best case scenarios for internal rate of return. Their study focused on important investments, which probably did not have quite the magnitude considered in this case, but the attributes they found are still relevant. The assessment of the relative merits of investment proposals is typically a decision problem built around multiple criteria [Carlsson (1994)]. When you look at the attributes Butler et al identified from this perspective, you can find conflicts between (ii) and (iii), as well as between (iv) and (v); there would probably be a positive mutual support between (i) and (ii), or (i) and (iii), as a corporate plan would emphasize either a high Internal Rate of Return (IRR), or a short Payback Period. Thus, a possible support system could in this case simply be an implementation of some useful multiple criteria decision making models.

2.1 The Dynamics of Strategic Investment Decision-Making and the Active Support Systems

As strategic investment decision making have all the elements of a classic cost benefit analysis, one expects the process to be supported by a large and thoughtful body of literature. Surprisingly, this is not the case. Shank (1996) points out the four steps involved in making strategic investment decisions as: identifying spending proposals, quantitative analysis of the incremental cash flows, and the assessment of qualitative issues that cannot be fitted into the cash flow analysis and making a yes or no decision. These are poorly covered in the textbooks and receive only marginally better coverage in the journals. Perhaps the poor coverage devoted to the process of strategic investment decisions is part of the reasons why managers are frequently accused of making investment decisions that lack strategic sequence and cohesion. For example, Hayes & Abernathy (1980) and Hays & Garvin (1982) had long ago pointed at and chastised companies for increasingly relying upon quantitative analytical techniques that provide maximal attention to cash flows and minimal recognition to the strategic implications that such decisions can produce. Even today, criticism about managers' strategic investment practices continued to be voiced. Often, Anglo-American managers are the target of this criticism; as Carr & Tomkins (1996) recounted how one German Chief Executive described American managers as mere financial engineers, who had lost any feel or intuition for the products they sell and markets they serve. They also described how a Japanese Senior Manager criticised Anglo-American managers for failing to integrate technology appraisal with strategic formulation and control. From this research study, it is my conviction that, technology is too important to be excluded from corporate strategy which encompassed strategic decisions in the organisations.

In the absence of technological support for the strategic investment decision making, one of the early ideals of the decision support systems was to find a way for human decision makers, and computer-based support systems, to tackle complex problems in interaction, in such a way that the resulting synergy produces new insight. There is not much material in the literature to suggest that this has happened; even if they exist, you could be satisfied with only a few cases. One of the reasons is that senior managers are normally not active users of decision support systems. Instead, the decision support systems are used by those who are hired to get answers for the decision makers. These are, in most cases, junior analysts and staff who do not have the requisite knowledge, experience and overview to fully utilize the potential of decision support systems, making the ideal use of the decision support system become non-standard. When designing a decision support system, it is not always remembered that it is counter productive to give executives tools to carry out tasks they normally do not perform at all. Unless there is a task, which involves the use of a decision support system, they cannot take the time out of their normal overloaded schedule to design any, but will rely on consultants to design the decision support systems for them and charge the organisation several dollars while most of them have the capability to design it themselves. The fact that Strategic Investment Decisions are definitely among the tasks of senior managers can never be over emphasised. This is because senior managers have planned and budgeted time for working on them.

Therefore a decision support system can be helpful if it can be shown to have a few important, supportive properties such that, it could be useful for: (i) getting a quick overview and intuitive understanding of the domain - to provide explanations of key factors and their relationships; (ii) helping with a comprehensive problem formulation - to determine assumptions and to simplify reality; (iii) relating a problem to relevant and effective problem solving methods - to assist with proper problem solver interaction, to advise on proper procedures; and (iv) interpreting and explaining results. These properties are quite easy to describe and a bit harder to build and implement for actual use in practice making senior managers reluctant to design them on their own without hiring consultants to do it [Mili (1990)].

There are a few more interesting approaches to the active decision support system. Manheim (1989) states that an active decision support system should "take the initiative without getting specific orders" and should "respond to non-standard requests and commands"; but Angehrn (1992) argued that an active decision support system could be a conversational, agent-based approach to decision support system in order to "enhance creativity in collaborative human-computer problem solving". Clearly, these approaches show features that are necessary to be co opted into a support system for senior managers. The approach used in this research study has been an alternative support system built around hyperknowledge, which is a cognitive metaphor introduced by Chang et al (1993).

2.2 Alternative Approach to Hyperknowledge Support Systems

Recently, when charged to advise the board of directors as a finance manager of Akuaba Ltd, a Ghanaian wood products company, an alternative support system was developed for the company (woodstrat system) in 2006, but before then hyperknowledge support systems have also been developed and implemented in the telecommunications, the insurance, the forest machinery and the alcoholic beverage industries. The approach used in this study has been fairly straight forward, as is demonstrated in figure 2.2.1 below.

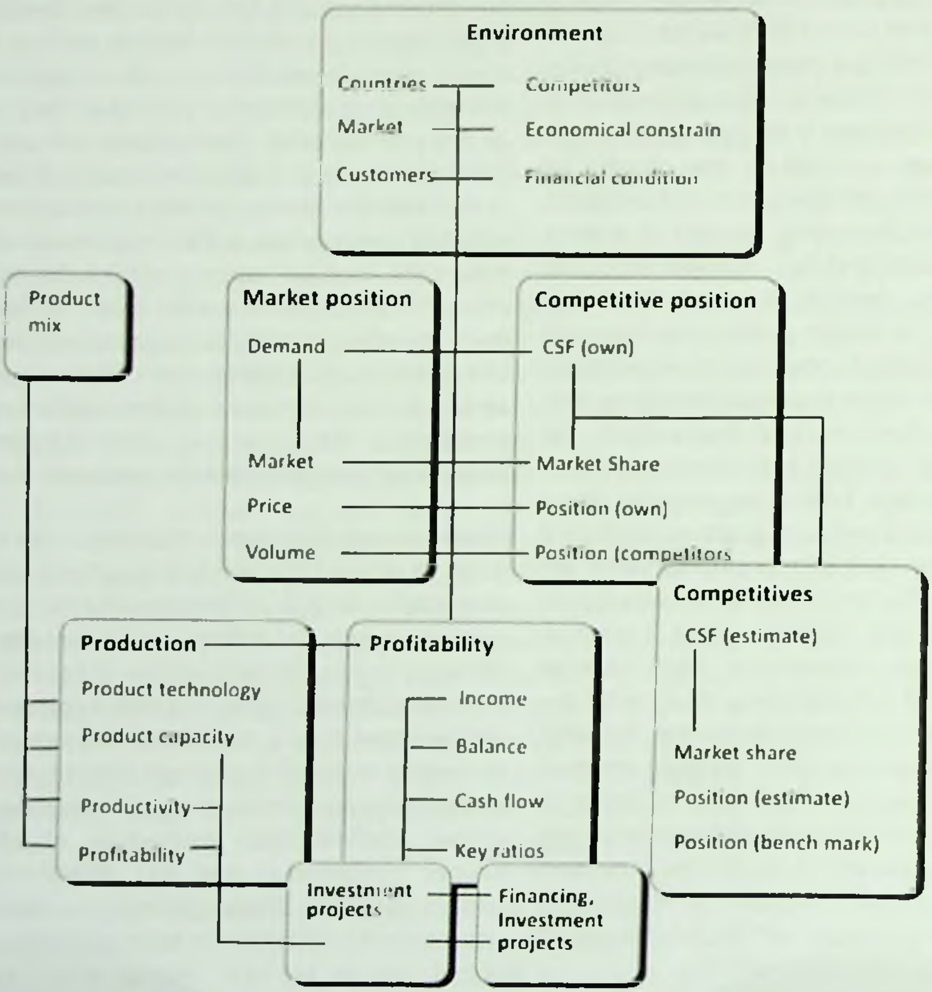

Fig. 2.2.1 Alternative Hyperknowledge Support Environment

Considering the hyperknowledge support environment in fig. 2.2.1, a systems user can start with any module of the system and work his way through it by going from module to module. In this system, one can start with the market position: (i) the demand is a function of (ii) market, (iii) price and (iv) volume, which will decide the coming demand; or (v) Critical Success Factors (CSF) will influence the demand (there is an interaction between the two modules here) and also decide (iv) market share, (vii) our competitive position and (viii) the competitive position of our competitors. A similar network of interactions is played out over all the modules, which allows you to work out interactions among the concepts in the interface.

There are various modules covering key aspects of strategic management, which have been implemented with Visual Basic 5.0 and Java in a Windows NT 4.0 environment. The user interface is designed as a user-friendly platform for senior managers, which is supported with a data warehouse built in Oracle 8.0 and with continuous assessment of the macroeconomic environment, key industrial changes and developments, competitors and their activities and significant changes in key market characteristics. The use of external data sources is supported with software agents.

The hyperknowledge support environment figure 2.2.1 has most of the characteristics described in Chang et al (1993). There are still some unresolved problems both with developing support systems for strategic management and with the conceptual richness of hyperknowledge. This study focused on ways to develop the hyperknowledge environment to combine quantitative with qualitative assessments in the analysing models; and extend it to combine empirical hard facts with knowledge-based estimates and proposals in such a way that one can find a synthesis and new knowledge in an attempt to resolve strategic management problems. In dealing with such complexities one is able to combine interactive and (more or less) intuitive problem solving methods, building on learning processes, with numerical optimization methods, which would help senior managers to tackle complex problems in which part of the complexity is due to imprecise and incomplete information and knowledge [Carlsson (1997)]. This required additional work to be done, and was fortunately executed in other research programs, whose elements have been discussed in part four (4) of this research paper.

1. Case Study: Shore Resource Group (SRG) Industries (Gh) Ltd

The SRG Industries (Gh) Ltd is a major Free zone company operating in Ghana's free zone enclave at Tema, manufacturing and marketing a wide range of high-quality poly products, exporting 70% to other West African Sub-regional Market; while selling 30% locally in line with the free zone requirement. The turnover for 2007 was Gh¢29.182 million. Exports to Economic Community of West African States (ECOWAS) market and sales by regional subsidiaries represented 76% of the turnover. SRG's basic strategy is to expand and strengthen its market positions in carefully selected core businesses, which are producing Plastic chairs, plastic bowls/cups and polythene bags. In the Annual Report for 2007 Chief Executive, Ali Jabir quite clearly outlined SRG's strategy in six points: (i) Focus on key business, (ii) Strengthen market positions, (iii) Improve competitiveness and efficiency, (iv) Focus on customer service locally and globally, (v) Improving the financial position of the company. SRG is continuously assessing its prospects for expansion and is committed to a strict and constantly enhanced environmental policy. This is a proven way to secure long term competitive ability in the plastic industry. The SRG's profit after financial items was Gha¢1.008 million in 2007; the number of employees was approximately 600, of whom more than 14% worked as expartries.

3.1 A Multi-purpose Poly Mill

One of the SRG's key development projects has been the construction of the new Multi-purpose poly mill at their new site around Tema harbour. The project started in the beginning of 2007 and the new poly machine went into production in August 2008; the new mill is one of the largest in Ghana with a capacity of 150 000 t/a, and a total investment cost of Gh¢137 million. The company's sales network will be handling almost 2 million t/a of polythene bags of different sizes and 2 million plastic chairs & bowls/cups after the new mill has been added. This is one of the significant development projects ever in the history of the SRG and will dominate its operations because the poly mill is the most economical and productive among the poly mills today. Extensive market research, carried out by both the company's own market research department, as well as by external consultants, showed that there were market opportunities for two different plastic qualities: (i) Light Weight Coated (LWC) and Medium Weight Coated (MWC) plastic qualities, with mechanical pulp included, and (ii) Wide Field Channel (WFC) plastic qualities.

A closer look at potential market segments, which appeared to offer a sustainable growth at good product prices, revealed that there was a particular demand for thin (50-95 g /m^2) polythene with good capacity characteristics. There was not much production capacity on offer for this particular polythene quality, even on a global scale, as it obviously is rather difficult to produce a thin polythene with good capacity characteristics. The SRG's research and development department had over the years experimented with a process in which mechanical fibres of cop polymer combined with the-based soft- propylene fibres was a key ingredient, and this process was proved to answer the technical requirements. Two other key factors were advanced coating know-how, which had been developed in cooperation with Valmet, the producer of plastic and poly trimming machines, and the pigmentation process.

The thin polythene was positioned for the Heat-Set Polypropylene Offset (HSPO) segment (heat-set offset polypropylene for producing from reels) in which it offers its users about 20% more galvanising surface per ton than competing poly products in the market. In strategic management terms, the new product had a significant impact in the user's value chains offering savings in the purchase, the storing and the transportation of polymer. The competitors did not have any clearly matching products and will face a 3-5 year catching up struggle if they decide to enter the competition, and as the markets for electronic polythene - the HSPO are taking off, SRG is well positioned with its new plastic product.

3.2 Features of the Multipurpose Poly Mill and the Strategic Investment Decision (SID) Making

The new poly machine is 12000 mm wide, with a process speed of 1600 m/min combined with the coating machine's 1800 m/min. It was built by Valmet and is the most productive and cost effective of its kind in the world. The plastic quality can be guaranteed to be consistently high as the production process is constantly monitored with advanced technology, including several fuzzy logic control systems to make sure that the paste-like substance rushing pastal 1800 m/min over a 12000 mm wide area in a 500 m long polythene machine is kept to preset quality standards. This gives SRG an edge in the fierce competition of the plastic markets in the sub region. Getting all the facts available, the multi-purpose-investment project appears to have been a quick and straight forward process in an attempt to: (1) decide that there is a need for restructuring an existing plastic mill, (2) find growing and profitable market segments for an expansion, (3) invent a new plastic quality for these segments, (4) build the poly machine, (5) restructure and expand the poly mill, (6) get everything ready well ahead of schedule, (7) start up the new poly machine, and (8) make significant profits from the new plastic products positioned in the discovered market segments. Taki and Shangarvi, who were SRG Operations and Production Managers respectively were responsible for the project and pointed out that, the planning, problem solving and decision making that went into the project was not at all that simple, well-informed, rational and straight forward. They found that a support system of the kind implemented elsewhere as a prototype will: (i) Organize data and information, which is fragmented on many data sources, and (ii) Harmonize decision making as everybody has the same facts available.

2. Support Systems for Strategic Investment Decisions.

In 2006 I developed and implemented a support system in Akuaba Ltd while Walden et al developed and implemented in nine strategic business units from 1992 to 1994 at the Metsa-Serla Corporation in Finland. From experiences gained during the development process, it was not unexpected that the same principles used for the Akuaba woodstrat was also useful for the Strategic Investment Decisions support system in SRG multi-purpose poly mill project. The details studied from Walden et al (1999) present a synthesis of the experience gained and helped me formulate this as key principles for the building of a Strategic Investment Decisions support system in Akuaba woodstrat. In that study, it was found that the real world structure of the Strategic Investment Decision process differs somewhat from the principles described in the literature on Strategic Investment Decisions.

4.1 Real World Structure of Strategic Investment Decision Process

The process starts with a mapping of investment alternatives as a brainstorming process in the project team on the basis of the corporate guidelines. As soon as there is a consensus on the first set of alternatives, this set is run through a first evaluation, which should eliminate those alternatives, which will fail on one or more of the corporate guidelines. This is rather quickly followed by a decision, which is then justified with: (i) data from external and internal sources on markets and competition, (ii) systematic studies on productivity and profitability, and (iii) assessments of customer value and product life cycles.

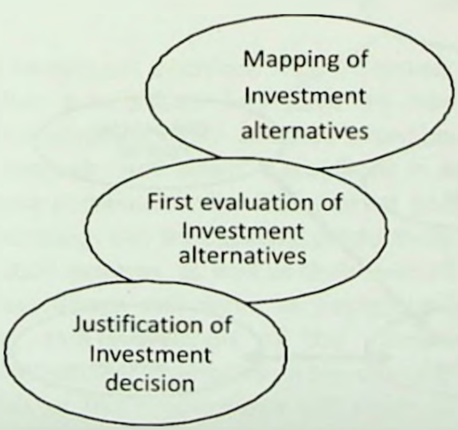

Fig. 4.1.1 The Strategic Investment Decisions (SIDs) the real world process

Then it seems justified to propose that a Strategic Investment Decision support system should be built to support this sequence of processes rather than some ideal sequence, which will not be used anyway.

4.2 The first phase of Strategic Investment Decision Process - Mapping of Investment Alternatives

In the first Strategic Investment Decision phase, the guidelines set by the corporate management, market knowledge (tacit or clearly formulated), knowledge about the competition and assessments of the development of production technology are used to build an investor strategy - corporate strategy, which can be either a full-scale document or a few points of the minutes of the first meeting of the Strategic Investment Decision project team. If the Strategic Investment Decision is built on a document, normally there are studies on:

(i) The market position the strategic business unit will have, with and without the Strategic Investment Decisions;

(ii) The competitive position, which will show how strong the strategic business unit will be relative to its competitors, with and without the strategic investment decision, and

(iii) An assessment of the productivity of the technology used by the strategic business unit with and without the Strategic Investment Decision.

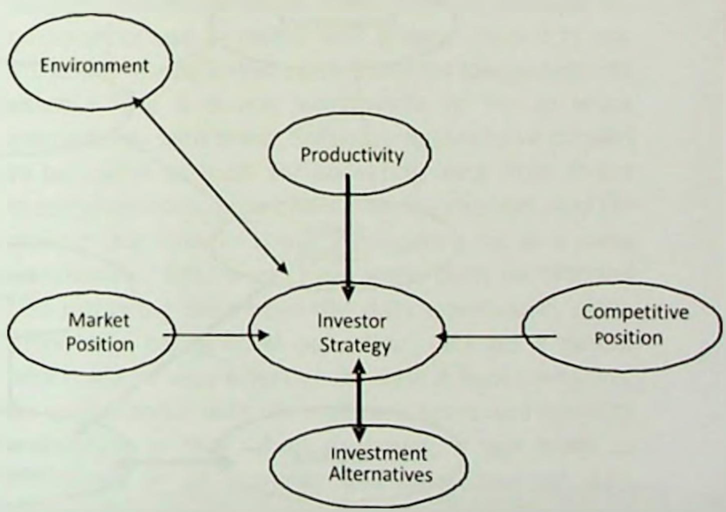

Fig. 4.2.1 The first SID phase - Mapping of investment alternatives.

Several software modules for assessments of market position, competitive position and productivity were implemented in the Woodstrat, and this technology is both useful and motivated for Strategic Investment Decision's of the multi-purpose poly mill investment type. The support system would be used to screen and initially test possible investment alternatives. A more critical factor is to obtain enough facts about the environment and to get good estimates of prevailing trends in product demand and prices. It is important to get material on the relative strengths of competitors and their prevailing strategies in choices of products and markets. Mergers and Acquisitions also need to be followed and to assess what their impacts are on market positions, on logistical alliances, on production technology and on Research and development. There must be a search for good benchmarks on the productivity of the existing production capacity in the market and some facts on the cost effectiveness of the operations.

The cost effectiveness is decided by the cost development of production factors, and one needs to get some factual databases on these, as well as all the odds and ends, which form so-called "weak signals" of changes already starting or about to start, and which can cause significant changes in the markets or among groups of key customers. This material is scattered on many different data sources which are updated at regular or irregular intervals. There are now some feasible technological solutions for handling this type of material, and this will be worked through in part 4.

4.3 The Second phase of Strategic Investment Decision Process - Evaluation of Investment Alternatives

The Strategic Investment Decision process quite quickly focuses on two to three alternatives. Ideally, the evaluation of alternatives should run through many more alternatives but the project teams working on even multi-purpose poly mill investments projects seem always to be pressed for time. As the focus is narrowed, the need for data, information, and knowledge becomes much more concentrated and more precise, and the role of a Strategic Investment Decision support system moves from the support of scanning and screening tasks to the support of mostly numerical evaluation tasks. The investment alternatives, which are being evaluated, have passed the test of fulfilling the investor strategy. But yet still, there may be some need for rating them on how well they fulfil the strategy, which can be done with Analytical Hierarchy Process (AHP) or Virtual Instrument System Architecture (VISA), or some similar tool for combining qualitative and quantitative assessments [Carlsson & Walden (1996)].

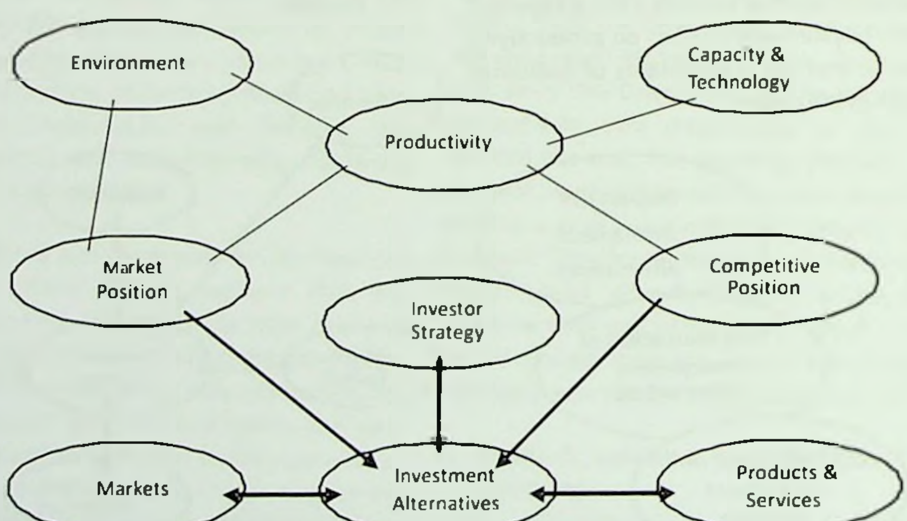

Fig. 4.3.1 The second SID phase - First evaluation of investment alternatives

However, Drucker (1995) argued that a Strategic Investment Decision support system should provide a platform for using this type of tool with the data provided from its modules. The products and services to be produced by the Strategic Investment Decisions need to be evaluated in detail, and be able to trace trends in demand and prices, as well as how well the products and services may succeed in comparison with similar offers by the competition. This requires a fairly detailed database and numerical tools for forecasting and competitive analysis. The Strategic Investment Decision support system should also offer a platform for both, which is not tough in a technological sense, as a normal Windows platform will do. The markets on which the Strategic Investment Decision products and services will be placed should be traced and evaluated. There is the need to get material on what markets there are in which countries, who are the industrial customers you are going to work with and what are their demand and business potential. Senior managers should be able to find and define market segments with specific characteristics, which should be able to identify and pair off with either innovations produced by the strategic investment decision products and services, or with core competencies found with the strategic business units (SBU). Managers should also be able to trace the industrial customer's markets, as the first signals on whether growing or declining demand will come from those markets. There is the need also to get some benchmarks on what prices you can charge and what is the overall cost competitiveness of the customers.

The strategic investment decisions support system needs to offer possibilities for quick ad hoc calculations and graphics, which could be based on getting data through "drill down" capabilities in a data warehouse implementation. The market and competitive positions and the capacity, productivity of the production systems, as well as their level of production technology, will serve as background scenarios for the evaluation of the chosen investment alternatives. Scenarios on the changes and the trends of the environment will serve as drivers of the background scenarios, which will form the basic assumptions for judging the outcomes of a strategic investment decision. There is no doubt that these scenarios are critical for the success of a strategic investment decision. Where these basic assumptions fail, and they mostly do in a negative way, they can turn a profitable and successful investment alternative into a failure. Then there will be four essential requirements on these scenarios: (i)The facts used should be valid and stable (ii)The assessments should be tested for sensitivity (iii)The consequences derived should be tested for precision and validity, and their sensitivity to changes of key factors should be evaluated and tested, and (iv) The methods used for building the scenarios should be quickly adaptable to significant changes.

These types of scenarios have been implemented already in the Akuaba woodstrat support system. In terms of technology they are not hard to build because a good windows platform is sufficient, and most of the functional links needed to link the various scenarios can be done with excel add-on software. It is always useful to have some tools for driving the simulations, and add-on graphics for quick representations of ad hoc scenarios save time. The scenario environments can be tailored to user needs with some support routines in either visual basic 5.0 or java.

Data is a problem for the scenarios, because most of the times you need to draw upon external data sources, many of which have been produced for commercial use at rather stiff prices. Then it is not attractive to stay linked up to them for longer periods of time and it is not worthwhile to try to work interactively with them. Software agents have proved to be useful as tools for collecting data from these external sources, quite often over the internet, and for storing this data in some intelligent way in a data warehouse. Where you have some tools for filtering and retrieving data from the data warehouse, quite often as a background operation, you get a setup, which will be very effective for data driven scenarios. An added bonus with the software agent and the data warehouse is that when designed, it will work as effectively in an intranet and with internal data sources.

4.4 The final phase of Strategic Investment Decision process - Justification of the Investment Decisions.

In real life, a Strategic Investment Decision has to be defended and justified many times to various stakeholder groups. Normally these groups will not appreciate the details and the (often) quite complex reasoning being used in the evaluation of investment alternatives. Thus, you need another type of strategic investment decision support for this phase, which should be able to use the same support systems platform as in the previous two phases. The scenario part in this case can be the same as in the previous phase, as you need to be able to show and justify the basic assumptions underlying the strategic investment decision. Possibly, you could build a user support for more animation-like presentations of the scenarios, and need not keep the links to external data sources unless key parameters change as often as you can run the scenarios from the data warehouse.

However, another straightforward part of the setup is the evaluation of estimated profitability of the strategic investment decision over its lifetime. This is a simulated income statement driven by the scenarios with assumptions on currency fluctuations, interest rates and changes in prices of labour, raw materials, energy, transportations, etc. It is standard practice to allow this proforma income statement to drive changes in equity and the overall capital structure of the strategic business unit, which then can be measured in terms of Return on Capital Employed (ROCE) and similar key ratios. The income statement is also made to run cash flow scenarios and various key ratios on the financial risks with the strategic investment decision. Not surprisingly, all this can be done with excel and the only requirement of the strategic investment decision support systems is that, it provides a good platform for feeding scenario data into the excel application. Then, there would be much use for an effective user interface, which allows the user to quickly switch between scenarios, to print good reports and to produce good graphical representations of the consequences of the chosen scenarios.

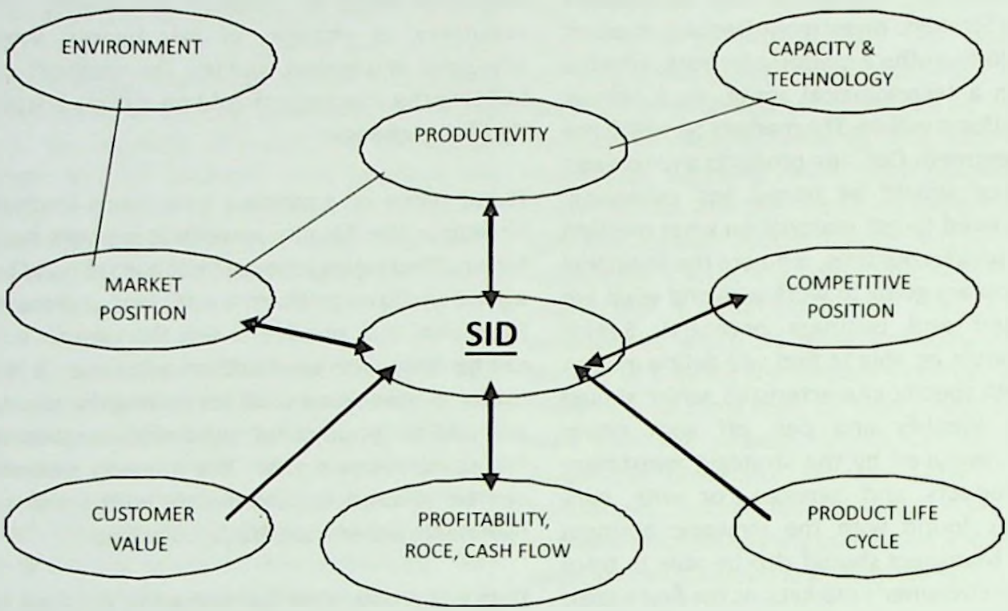

Fig. 4.4.1 The final SID phase - Justification of investment decision.

Stakeholders may be interested in aspects like customer value and product life cycle assessments of the strategic investment decision, that is to say, they would want to understand how the products and services produced by the strategic investment decision will/may increase the business potential or the cost effectiveness or the productivity of (industrial) customers. They may also want to be able to find out the possible life cycle changes in demand of the products and services in order to be able to fit these into similar scenarios for supporting or replacing products.

This type of modelling is difficult both in theoretical and technical terms, the causal relations used are not well understood and the data to formulate them is hard to find and use. The strategic investment decision support platform should support the use of advanced modelling tools, which could be used to describe life cycle processes as simulated phase changes on the basis of imprecise and uncertain input, and approximate reasoning to trace the impact of product and service characteristic on (industrial) customer value [see Carlsson (1997) and Carlsson & Walden (1997)].

The next section will illustrate a new technology for a Strategic Investment Decision support system which will allow you to support the type of reasoning that have been described in this study.

1. Hyperknowledge Features

This part illustrates a new technology for a strategic investment decision support system which will allow you to support the type of reasoning described in the real life scenario in part three. The hyperknowledge platform used in woodstrat as discussed was built in visual basic and used access for the supporting database. Later versions of the platform were done in Delphi and used Microsoft Structured Query Language six point five (MS SQL 6.5) as the database, but after a while it became apparent that the support system got in this way is both too complex for senior managers to use, and that the adaptation of the system to changing environments became too cumbersome. These problems were mostly due to the MS SQL. It also turned out that the design was too time consuming to build for fast photocopying. This resulted in the search for alternatives; in which case Java and data warehousing tend to be the available alternatives. However you can have in some applications where Oracle 8.0 was used as both supporting database and as a platform for the data warehouse. In this case the design of the user interface resembles the PointCast platform (PCP), which is a very effective and user-productive interface.

5.1 The Need for a Modified Hyperknowledge Support Systems

There are some modifications introduced as part of a project on fragmentation of working time with four small high-tech companies in Ghana and it was found out that badly designed windows user environments account for a significant portion of the non-productive use of working time traced in these companies. People who try to be highly productive spend many hours per working day with their personal computer applications and reckon that with less than a dozen fairly simple modifications made could save them 15-45 minutes of non-productive time fighting with inflexible applications in attempt to get solutions to their problems. Much of the functionality of this user interface has been made possible with the data warehouse application designed and built for the users; this design is termed as INDY, which is an acronym for an intelligent dynamic data warehouse. Using Oracle 8.0 as a platform, and software agents for data storing and retrieval in this way, it has been possible to include the intelligence already in the links that I have got in the user interface. The overall design of the INDY is shown in figure 5.2.1

5.2 The Intelligent Dynamic Data Warehouse INDY

The data access client of INDY is running a family of software agents, the functionality of which is shown in fig. 8. **Agent 1** is working with selected data sources on the Internet; where there is one version of this agent which accesses and retrieves news items from Reuters Business briefing and stores retrieved data in data base one (DB1). This data is combined with material from other data sources of which scanner data in the form of pictures was almost impossible to store on Oracle 8.0 and is organized and distributed for various applications with the INDY. **Agent 2** is extracting data from internal data sources; **Agent 3** is extracting market data from DB1 and organizes it in a data base two (DB2) for market analysis and reporting; **Agent 4** extracts product data from DB1 and organizes it in data base three (DB3) for further product analysis where DB1 is designed to serve as a database (or a data warehouse) for a decision support system (DSS) application.

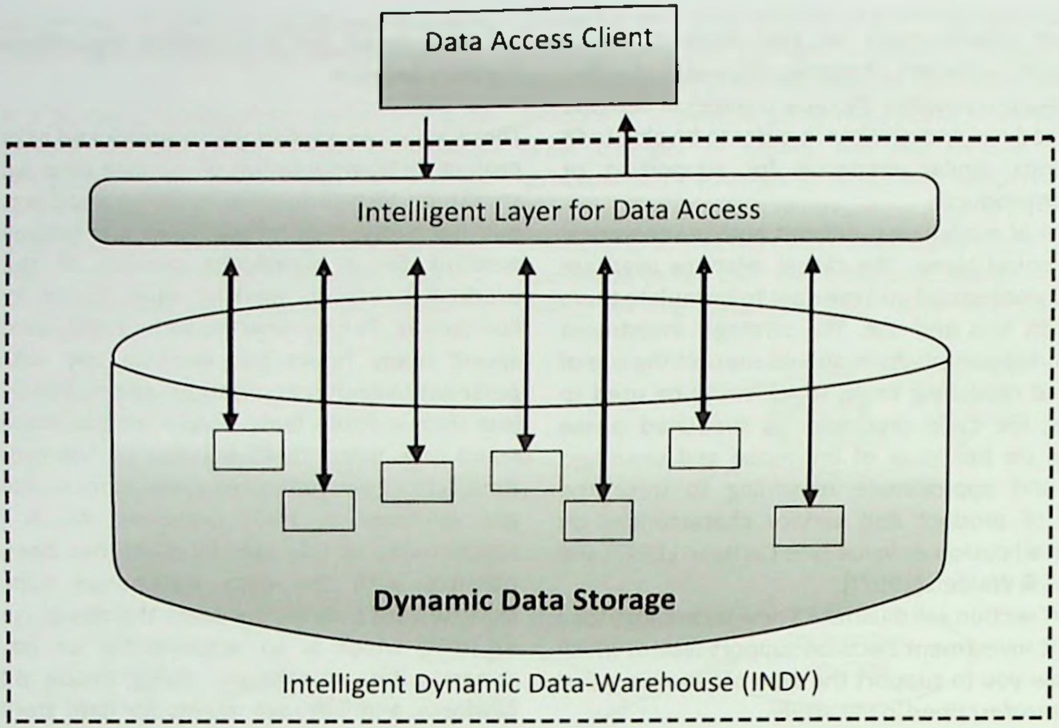

Fig 5.2.1 The INDY data warehouse application source: Turban & Aronson (1998)

The software agents are built to find data according to given search profiles and keywords, they can judge if the material is new or already stored with INDY, and they have some learning properties, so that a user can get relevant material' from data sources he has 'learned to trust' during the process. The software agents have been built in Java and there are already a number of applications in active use and the most promising of these provides a major company in the alcoholic beverage industry with material for industry foresight, that is keeping trace of legislation, structural changes in consumer habits, changes in strategic alliances among its competitors (see figure 5.3.1). These enhancements of the previous hyperknowledge support system built and implemented as the woodstrat system in Akuaba Ltd are aimed at making the system more designed user interface. It is clear that the system will be more effective for the scenario building and evaluation phase than the previous system. It is also much more effective for handling large amounts of data sources and the use of software agents proved of a very effective innovation.

5.3 Importance of Software agents for Data Access, Storage and Retrieval

It is important to note that, modifying a hyperknowledge support system, the modelling environment needs to be enhanced with the new data and user platforms that are made available. A strategic investment decision support system could be strong on forecasting and on a fast analysis of the consequences of a number of alternative numerical scenarios. In recent years there have been some advances in modern financial modelling technology, which allows the use of approximate reasoning on the basis of incomplete and spotty data, and fast, on-line optimization from data in spreadsheet format. The use of Artificial Neural Networks (ANN), Fuzzy Filtering and Fuzzy Logic, Generic Algorithms, Mini-sphere Control for Digital Media (MCDM), Simulation, Animation, etc. are becoming more and more standard for modelling complex phenomena, as the software to enable this modelling is becoming available as windows applications.

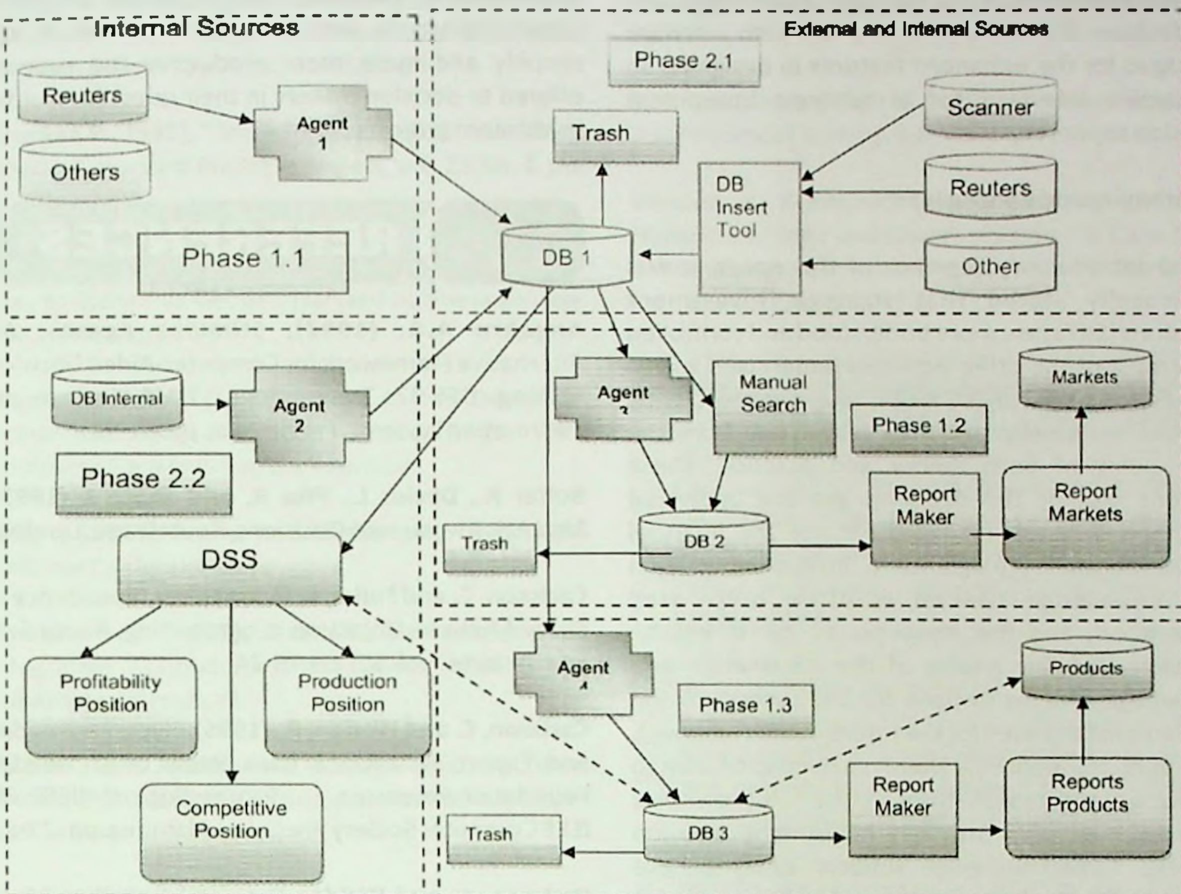

Fig.5.3.1 Software agents for data access, storage and retrieval

5.4 The Enhanced Hyperknowledge Platform

It is, important of course to note the problem in which the users should be able to find their way with these tools and that they could make some sense of the results. This requires the enhancements to the hyperknowledge platform developed for SRG Industries(Gh) Ltd and have the following elements as described in figure 5.4.1 below.

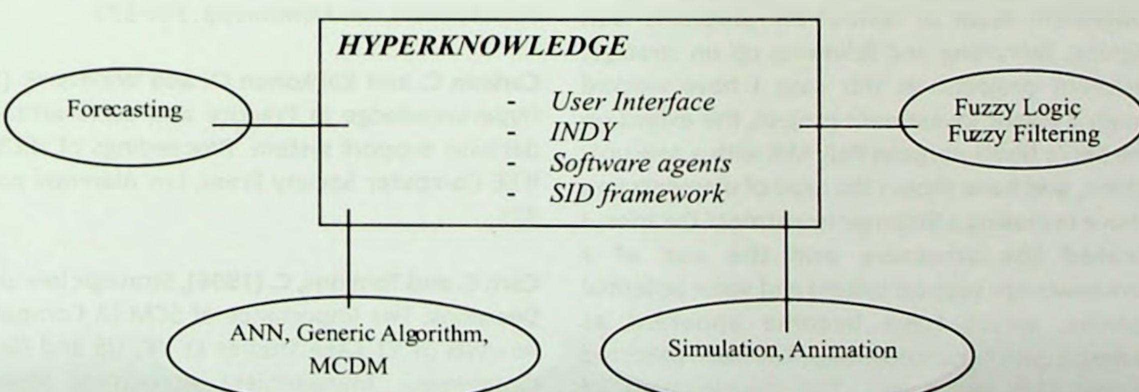

Fig. 5.4.1 Enhanced hyperknowledge platform

The first prototype of this platform is done with Java in Windows NT 4.0, and Oracle 8.0 with software packages for the enhanced features in designing an interactive interface for a strategic investment decision support system.

6. Summary and Conclusions

In the introductory segment of this paper, it was equivocally stated that strategic investment decisions (SID's) are more understood and controlled than most of the other activities undertaken within the framework of strategic management. The reasons are simple and less debateable from the view point of both theory and practice. These reasons are: (i) The decisions get the undivided attention of senior management. (ii) The financial risks undertaken are significant. (iii) The information and knowledge needed is often quite well understood, and the resources to get it will be available. (iv) The quality of the information and knowledge may be decisive for the success of the investment (and even for the future of the company), and as consequence (v) There is a need to be able to follow up and reason through the fairly complex internal logic of a Strategic Investment Decision making. Hyperknowledge support systems have been used as problem solving and decision support environments for strategic management and for strategic decision making in a number of industries in recent years. It appears that the logic of a Strategic Investment Decision is very complex enough for a decision maker to benefit from the use of a hyperknowledge environment because the hyperknowledge support system could help a management team to control the problems with designing, launching and following up on strategic investment projects. In this case I have worked through a Plastic investment project, the extension of the SRG's Multi-purpose Poly Mill with a new poly machine, and have shown the type of elements you can have in making a Strategic Investment Decision. I indicated the structure and the use of a hyperknowledge support system and some potential problems, which have become apparent as experience with hyperknowledge has been collected over the last few years. The development of hyperknowledge, an active support environment is now in the fifth generation, and this paper exhibited some innovations and enhancements, which will simplify and make more productive the support offered to decision makers in their quest for fruitful investment projects.

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INTERNAL BRANDING IN MULTICULTURAL SERVICES ORGANIZATIONS:
AN EXPLORATORY STUDY OF BARCLAYS BANK (GHANA)

| *Mathias Akotia & Charity S. Akotia* |

Abstract

An insight into how the internal branding process is to be managed to create a coherent brand understanding and commitment among multicultural organisations is largely lacking. The main aim of this study was to investigate and highlight the key factors involved in successful internal branding in a multicultural services organisation. Through an exploratory study of Barclays Bank-Ghana, a brand whose financial value has appreciated following a brand driven restructuring, this study has surfaced the key factors involved in internal branding. The findings show that the transformational role of leaders, brand alignment with business strategy, attention to building a purposeful brand-centred unifying culture, enabling employee buy-in, are critical to successful internal branding. The study also found that processes and systems alignment with brand values, cross-functional approach to performance management, and strong customer orientation, were other factors that are critical to successful internal branding at Barclays Bank. Concluding with a suggested modeling of the internal branding process, the study found the generation of brand-centred distinctive competences, through empowered and motivated HR as the goal of internal branding at Barclays.

Key words
Internal Branding, Organizational Culture, Multicultural Organisations, Services Branding, Performance Management.

Introduction

Employees as a critical component of the service production process are ultimately responsible for delivering service brand promise. Therefore, employees need to develop shared understanding of the services brand values which must be established in their hearts and minds to manifest brand supportive behaviour (de Chernatony, 2001). But as services organizations expand internationally and as they increasingly employ multicultural teams, the process of developing shared understanding among employees becomes more complex and challenging (Vallaster, 2004).

The relational and interactional nature of services challenges organizations to deliver expectations raised by external communication and the services process. Over the last decade, emphasis has shifted from internal marketing to internal branding which takes the inside out value-based approach. Internal branding seeks to develop and reinforce a common value based ethos typically attached to corporate brand mission or vision (Mosley 2007). Corporate branding, traditionally, is aimed at external markets. Internal branding translates the corporate brand insight into a strategic concept that strives to put the external marketing strategy in line with its internal values and behavioural practices of members of the organisation (Leberecht, 2004).

As services hold more dominant place in modern society, customer conceptions of services brands are more strongly influenced by the staff they interact with (de Chernatony, 2001). However, homogeneous work-groups in which members share similar backgrounds are giving way to multicultural groups (Alder, 2001). While research into services branding is in its infancy, an insight into how the internal branding process is to be managed in order to create coherent brand understanding among multicultural workgroups is largely lacking (Vallaster, 2004). The main aim of this study therefore, was to investigate and highlight the key factors involved in successful internal branding in a multicultural services organization. The research questions were:

- What specific psycho-social processes are involved in internal branding in a multicultural services environment?
- What human-centred competitive advantage is generated through internal branding?
- How are the Barclays' brand internal and external commitments balanced to overcome the possible multicultural workgroup challenges?
- How does leadership's enactment of brand values guide employee behaviours to overcome services unique challenges?

Literature review which follows this introduction presents discussions on services branding, culture as a source of competitive advantage and internal branding. Following the research methodology is the presentation of findings. Discussion of findings and managerial implications are then presented. This report is capped by the conclusion to the study.

Literature Review

Services Branding

The service brand is a combination of what the company says the brand is, what others say, and how the company performs the service from the customer point of view (Berry, 2000). Brand alignment within the service organization is critical so members can live and represent the brand to external customers (LePla & Parker, 2002). Services branding involves people within the organization recognizing the brand values as their own, necessitating a brand internalisation process (Kapferer, 2007). It also means responding and enacting the values that would influence everyday behavior to manifest the brand values.

Berry (2000) proposes one of the few services-specific models for cultivating brand equity and successful brand relationships. According to Berry (2000), a service brand must make a conscious effort to carve a distinct brand personality, the brand must capture and communicate what the company wishes to be famous for with customers, the brand must always make a strong emotional connection with the target audience. Finally, the service brand must be internalised. According to Berry (2000), because of the centrality of service employees to customer experience of the service, it is essential that employees internalise, or live the brand's values and vision.

Culture as Source of Competitive Advantage to Organisations

Organizational culture has become an important phenomenon to study because it is considered a potential foundation for competitive advantage (Barney, 1986). For this reason, managing the culture of an organisation is always important. According to Gronroos (2000), for service firms and manufacturing organizations facing service competition, the development and management of a service culture is a critical task.

Organizational culture is the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to various environments (Schein, 1992). Culture embodies values that can be thought of as residing deep in the organization and these are passed on to new employees through the process of socialisation (Schein, 1992). Culture helps members develop a collective identity and know-how to engender internal integration. Culture guides everyday work relationships and determines how people communicate in an organization, what behaviour is acceptable and how power and status are allocated (Daft & Noe, 2001).

Culture can imprint a set of unwritten rules inside organizational members' minds that can be very powerful in determining behaviour, thus affecting organization performance (Kotter & Hesketts, 1992). Organizational culture also determines how the organization meets goals and deals with outsiders, thus helping organizational external adaptation. The appropriate cultural values can help organization respond rapidly to changes in the market places (Kotter & Hesketts, 1992).

Many African countries have several different cultures and the absence of articulated unifying national culture in these countries means that organizations are constituted by multicultural groups that operate in environments bereft of national cultural guide references (Akotia, 2006). A typical international service organization in Ghana has members from indigenous and expatriate multi-cultural backgrounds. Diversity within a group, however, may increase uncertainty, complexity and inherent confusion in group sense-making processes, making it more difficult for the group to function (Nelson & Quick, 2003). Though cultural diverse groups generate more and better ideas while limiting the risk of groupthink, the way people think and interpret their environment, how they feel and communicate with one another are often divergent, impairing the development of a shared brand understanding (Nelson & Quick, 2003).

A critical challenge for leaders and managers of *multicultural* service firms in Ghana therefore is the cultivation of a purposeful unifying organizational culture as a genuine basis for customer valued services brand positioning (de Chernatony & Segal-Horn, 2003). Recent literature holds that while corporations are progressively seeing the benefit of corporate branding strategy, to get the most out of it, corporate vision, culture and identity must align (Hatch & Schultz, 2001). Internal branding allows an organization to align its internal processes and culture with the brand values.

Internal branding

Internal branding is the process of developing a coherent brand understanding and commitment among organizational members (Vallaster & de Chernatony, 2005). Mitchell (2002, p.1) asks: *"You tell customers what makes you great, do your employees know?"* In response, Mitchell (2002) argues that organizations must address this critical internal market, the very people who can make the brand come alive for the organization's external stakeholders. Internal branding helps employees make a powerful emotional connection to the brand. Without this connection, employees are likely to undermine the expectations set by the organization's external communication, argues Mitchell (2002).

Though branding traditionally has been aimed at external audiences, it has internal implications. Internal branding translates this insight into a strategic concept that synchronizes external marketing strategy with the organization's values and behavioural practices. Internal branding therefore entails the alignment of the organization around the brand by coordinating marketing efforts with principles of organizational change management (Tosti & Stotz, 2001). The marketing effort is focused on defining and clarifying customer value to provide a clear direction for change, in contrast with the change management orientation which is focused on using performance management to identify and operationalise the brand values, practices and behaviours that will take the organization into the desired direction (Tosti & Stotz, 2001). Internal branding then results into marketing strategies that occur within the organization as an on-going change management, in which change means the change in stakeholders' attitudes and expectations.

Through internal branding, the previously independent disciplines, marketing and performance management are integrated by aligning employees with the brand proposition. The synchronization of these disciplines optimizes the effectiveness of marketing strategy. Tosti and Stotz (2001) argue that an organization can then use a systematic, comprehensive approach that takes into account the range of factors impacting organizational effectiveness with the required attention to people who must deliver the brand promise. Gronroos (2000) emphasizes that internal branding can be the most powerful means of developing a service culture as internal branding enables an organization's members to understand and accept the business mission, strategies and tactics as well as its goods and services. Internal branding therefore engenders attitude management and communications management, both strategic imperatives to services culture creation (Gronroos, 2000).

Two internal branding models, derived from empirical studies, are presented below. While Tosti and Stotz (2001) focus on the process, Bergstrom, Blumenthal and Crothers (2002) 5Cs model's concern is about the key elements involved in internal branding.

Tosti and Stotz (2001) have proposed blending marketing expertise and performance technology to generate the following internal branding processes:

Phase 1: Brand Analysis. This phase involves clarifying the brand proposition and value to customers. The brand proposition is then translated into brand values and behavioral practices for all organization members.

Phase 2: Alignment. This phase involves alignment of leadership, culture and work processes with the specific brand proposition. This involves structural empowerment of employees to brand supportive mindset and behavior.

Phase 3: Education and enrolment of managers and employees. This phase involves senior managers of the organization being orientated to thoroughly understand, support and actively demonstrate commitment to the internal branding process. Through HR management and internal communication, employees are also educated and enrolled to live the brand.

Phase 4: Support, assessment and review. This phase involves on-going initiatives to measure and ensure that each phase and the overall internal brand implementation achieve the corporate brand's goals.

Bergstrom, Blumenthal and Crothers (2002) on the other hand propose the 5Cs model of internal branding which highlight the core elements as: Clarity (brand), Commitment, Communications, Culture and Compensation, as represented in Figure 1 below. Clarity refers to what the brand is and how it should be communicated, to whom it must be addressed and the translations of brand attributes into language, sensory symbols that become the cornerstone of the brand. To Bergstrom et al (2002), Commitment refers to the building of consensus around the brand, creating a general sense of shared understanding and commitment. Communication within and without the organisation must reflect a deeply felt need for employees to approve of and appreciate the process. This emphasis is demonstrated through leadership by example, high frequency communication, use of multiple channels and environmental management.

Figure 1: The 5Cs Internal Branding Model

Clarity	Commitment	Communication	Culture	Compensation

Source: The 5Cs model adapted from Bergstrom, Blumenthal and Crothers (2002).

According to Bergstrom et al. (2002), for true internal branding to take place, the organisation must anticipate, acknowledge and respond effectively to the inevitable cultural resistance that will spring up. For Culture change to happen, there must be a reason to co-operate and there must be consequences for opting in or out. The only way to sustain a strong brand is to offer appropriate Compensation for those who deliver it. The brand is a medium of exchange that works both ways: companies that uphold it can demand higher prices and must therefore pay higher prices to members of organisations. They emphasise that employees must feel rewarded for upholding the brand.

Research Methodology

Considering the research aim, the purpose of the research was exploratory, to enable the researchers gain insights into, and deepen understanding of how internal branding is advanced to gain a coherent brand understanding among multicultural workgroups, and to identify future research areas. The research questions demanded answers that emphasized full contextual analysis of internal organizational processes and their relationships within a single organization. With a focus on generating detailed valuable insights for problem solving, a single case study approach was adopted, consistent with Bergstrom et al. (2002).

The population and sample: All participants in the study were drawn from Barclays' brand leadership, management and officers in Accra-Tema; this twin city hosts Barclays' country headquarters and more than half of the country branches. From the population of Barclays' brand leadership team, management and officers, three Barclays' brand leaders responsible for brand strategy development, six managers and fifteen officers were interviewed. The sample was chosen to reflect how the corporate brand was being progressed and internalised by corporate leadership on one hand, and how it was being internalised by management and employees of the organisation on the other hand. Since the main aim was to explore and deepen understanding of internal branding, purposeful sampling, on the basis of who was knowledgeable and available to articulate opinions clearly about brand strategy and implementation, was employed.

Data sources and collection: Both primary and secondary data sources were used. Considering the research questions and the fact that the sample was constituted by busy brand leaders responsible for brand strategy development, bank managers and officers who are brand implementers, the most appropriate qualitative data collection method was found to be in-depth interviewing (Saunders, Lewis & Thornhill, 2007).

The interview was semi-structured, consistent with a discussion guide that elicited responses to questions on the business model and how it informs the brand strategy development, how brand strategy is clarified and internally implemented, and how brand strategy and performance management are integrated through human resource (HR) policies and practices. The guide also elicited responses on how brand internalisation engenders brand values and supportive behaviour, and how a purposeful brand culture is spawned. For an emerging area of study, the qualitative data design provided a more holistic and richer insight into the experiences of respondents with the internal brand, beyond the understanding that would be generated through a quantitative study (Malhotra & Birks, 2003). The secondary source depended largely on published financial accounts (1998-2006) of leading banks in Ghana, and downloads from Barclays' worldwide and country websites.

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 with the Barclays brand consistent with other studies on services branding (de Chernatony, Drury, Segal-Horn, 2003).

The Findings

Barclays Ghana: a brand in phenomenal growth

Barclays-Ghana was established in 1917 (Anin, 2000). Barclays-Ghana, in response to competitive threats and growth opportunities as the result of improvements in the Ghanaian economy embarked on brand-centered corporate restructuring in 1998. Since 1998, Barclays, now a wholly owned subsidiary of Barclays Bank Plc, has become associated with several "firsts" in financial services innovation in Ghana. For example, Barclays was the first truly nationally networked bank, providing real time banking at all its twenty-five branches. In 2002, Barclays launched the first automated telephone banking operated in Ghana. Barclays again was the first to introduce on-line banking for its corporate customers.

Barclays Financial Performance: Most of Barclays' innovations were introduced after its 1998 restructuring that has taken the company to a new height in services brand financial success in Ghana (Akotia, 2007). From the fourth position in 1998 on many of the bank brands financial value indicators, Barclays became the market leader by 2003. The financial highlights (1998-2006) of the six top bank brands in Ghana are set below in Tables 1-3.

Table 1: Total Operating Income (¢b) R=Rank

Top 6 Banks	1998	R	1999	R	2000	R	2001	R	2002	R	2003	R	2004	R	2005	R	2006	R
GCB	131	2	224	1	490	1	695	1	706	1	764	1	839	1	1037	1	1227	1
SCB	180	1	200	2	304	2	425	2	447	2	556	3	602	3	710	3	846	3
Barclays	106	4	146	3	297	3	425	2	443	3	623	2	757	2	808	2	910	2
SGSSB	107	3	126	4	235	4	284	3	295	4	357	3	408	5	445	4	518	5
ADB	59	5	89	5	238	5	269	4	290	5	344	4	453	4	403	5	542	4
Ecobank	-		50	6	125	6	151	5	165	6	243	5	294	6	398	6	492	6

From the fourth position in 1998 Barclays claimed the second position from 2003 in revenue.

Table 2: Profit before tax (¢b) R=Rank

Top 6 Banks	1998	R	1999	R	2000	R	2001	R	2002	R	2003	R	2004	R	2005	R	2006	R
GCB	50	3	167	1	200	1	297	1	281	1	216	3	234	3	224	3	392	3
SCB	102	1	123	2	151	3	167	3	215	3	299	2	304	2	354	2	435	2
Barclays	40	4	70	3	192	2	282	2	266	2	329	1	431	1	410	1	450	1
SGSSB	62	2	60	4	125	4	158	4	153	4	126	4	169	4	159	5	193	5
ADB	24	5	39	5	100	5	117	5	73	6	88	6	123	6	81	6	126	6
EBG	-		29	6	77	6	87	6	89	5	120	5	148	5	187	4	240	4

From the fourth position in 1998, Barclays become the market profit leader in 2003.

Table 3: Return on Assets% R= Rank

Top 6 Banks	1998	R	1999	R	2000	R	2001	R	2002	R	2003	R	2004	R	2005	R	2006	R
GCB	3.0	5	5.0	4	6.2	4	4.4	5	3.8	4	1.8	6	2.9	4	2.2	5	3.3	4
SCB	7.4	1	4.9	5	3.7	6	4.7	4	4.3	2	4.6	2	4.4	2	4.5	2	4.0	2
Barclays	4.0	4	5.1	3	7.4	2	7.4	1	6.0	1	5.6	1	5.2	1	5.5	1	4.8	1
SGSSB	5.4	2	5.3	2	6.3	3	6.7	3	4.2	3	4.2	3	4.4	2	3.2	3	2.7	6
ADB	5.0	3	5.6	1	7.8	1	7.2	1	3.5	5	2.6	5	3.6	3	2.2	5	2.8	5
EBG	-		-		4.7	5	4.1	6	3.8	4	3.8	4	3.6	3	3.0	4	3.8	3

Barclays became the market leader on return on assets from 2001.

The management of the corporate brand restructuring

Rationale for change: Why the corporate restructuring, and how was the sense of urgency established? Following Ghana government's financial reforms that started in 1988, which involved banking sector deregulation, government diversification of banks, restructuring of the central bank, recapitalization of distressed banks through the recovery of non-performing assets of these banks, competition in the banking sector intensified. Many new banks, for example, Ecobank (1989), Prudential Bank (1993), First Atlantic (1994), Metropolitan (1994), The Trust Bank (1995), International Commercial Bank (1996) were established, heightening the emerging banking sector competition (Annin, 2000).

Barclays recognized that change was imperative for the company's survival and sold the need for change to corporate stakeholders. Opportunity for pan-African Barclays management approach, following similar deregulation and improvement in business climate in many other countries and the appointment of a new Barclays (Ghana) managing director, Mr. Kobina Quansah, fired up the momentum for change.

At restructuring, the organisation needed a coalition with enough power to guide the change process and create a sense of team-work (Kotter, 1996) as top team shared task understanding, and involvement were considered critical. Barclays took a number of ground breaking decisions. A core of young brilliant managers more likely to adopt the change were either promoted or recruited into key positions. For example, Barclays recruited a new HR Partner (from UK), Marketing Manager (from Unilever), Corporate Director (from Standard Chartered), Financial Director (from CAL Bank) and Financial Manager (from SSB Bank). Similarly, many long serving managers and officers were retired, paving the way for a coalition of change agents to be established.

Barclays Business and Brand Strategy redefinition

At the Barclays 1998 restructuring, the business model was espoused as a *high economic value return business relationships, achieved through differentiated brand business founded on excellent customer service and innovation in superior products and processes.* Barclays' cultural revolution with the focus on values management through brand behaviours was to give expression to the brand proposition.

Barclays mission was re-defined to place appropriate emphases on the customer, employee and community, as one that is *"recognized as an innovative customer focused company that delivers superb products and services, offers excellent career opportunities for its people and contributes positively to the communities in which we live and work"* (Brand leadership). Barclays purposefully defined its culture as one in which people are focused on how they can make a difference and add value to their customers. Barclays' values are centred on delighting customers and other stakeholders. To enact its mission and values which are at the heart of its business strategy, Barclays has espoused a set of behaviors. These six behaviours (the 6 Bs) *"provide the framework for achievement and set the tone for the values that stimulate success"* (Brand leadership). The Barclays' behaviors are to *"delight customers, drive performance, execute plans at speed, grow talent and capability, project and enhance reputation, build pride and passion"* (All participants).

To ensure consistency and synergy in Africa, Barclays has a pan-African approach to brand management. The country brand manager is the managing director who has overall accountability for consumer brand equity and financial performance. Barclays-Ghana has adopted monolithic corporate and commercial branding with line extensions to cater for specific propositions. For example, Barclays Business Master is Barclays brand line extension tailored to the requirements of the small scale entrepreneur.

Following Barclays 1998 restructuring, the brand promise was defined as to *"create a lasting impression of excellent service by proactively serving customers, in a friendly manner within a professional environment, where we get things right first time"* and the Barclays behaviours are there *"to inspire and guide employees to deliver the highest levels of customer satisfaction"* (Branch manager). Barclays also repositioned itself from *"safe and secure bank"* to *"innovative, modern and responsive financial service leader"*. This is what a personal banker said about the brand's repositioning, *"...we used to be very slow to change ...but today, we are always taking the lead in customer centred innovations..."*

As part of Barclays brand redefinition, the role of customers in the service value delivery process has been defined through active and purposeful recruitment, education and the management of its brand marketing mix. Barclays, aiming to be an employer of choice for its *"best and brightest employees,"* has created a *"major cultural change in the financial services industry"*, through offering a *"wealth of career opportunities, developing our people and supporting life-long learning for them"* (www.barclays.com.uk).

Internalization of brand values and behaviours

Management buy-in and empowerment: This phase is about managers understanding, support and active demonstration of commitment to the internal brand building process (Tosti & Stotz, 2001) so as to lead the change. In Barclays, this means providing members with the soft and hard competencies, pivoted on the brand values. Management intellectual buy-in and emotional commitment were achieved through brand literacy programmes, performance and human resource (HR) management. Technical and managerial processes are centred on the brand and thus become channels for brand literacy. Management's commitment is engendered through the HR processes: recruitment and induction into the Barclays' behaviours and technical roles, reward schemes based on the behaviours and functional objectives, and socialization into the corporate brand culture. Cross-functional brand assignments and projects (for example, Barclays Mile Ahead promotion) help establish an overall brand view among management.

Education and enrolment of employees: Once the Barclays' brand was defined and top management understanding, involvement and commitment were assured, Barclays systematically rolled-out the brand through brand literacy programs, performance management and HR practice. Initial Organizational Climate study provided relevant information and direction. Employees were then involved in work-shops and durbars that provided an introduction, explanation and multiple experiences that characterize the core brand values.

Through the education process, employees had the opportunity to know and experience the brand. Typically, a young graduate goes through an intense two-year Barclays' leadership program, a programme that provides functional, managerial as well as Barclays' brand behavioural orientation. Barclays University, an online learning and development facility, and Barclays' training school and library in Accra, ensure employees are provided with Barclays' brand oriented learning support.

Brand driven policies and systems: Many new systems and policies have been introduced to support the new brand identity facets. Customer focus with the inverted service triangle ensures all employees are empowered. As part of the restructuring, performance appraisal was changed to development appraisal. A 360° performance and development feedback was introduced. Employee compensation, like all benefits, was made competitive to reflect the "*performance levels of the individual concerned and the market rate for the role*" (A Barclays' manager). An individual's performance is rated on the bases of performance on the functional objectives, defined by *what* the individual is expected to do, and the behaviour characterizing performance, that is *how* the tasks are carried out consistent with the brand values. Functional objectives are stated in terms of what is described as the Barclays 5Cs- Customers, Company, Colleagues, Community and Controls. Every employee signs to a performance contract, expressed in terms of the specific 5Cs and 6Bs. An end of the year development appraisal is conducted through the Barclays' 360° feedback. Because of the "*feedback and performance related benefits there is now a consistent effort by staff to deliver and employees encourage colleagues falling behind to improve*" (A Personal Banker).

Opportunity is crafted for story telling in Barclays. Barclays presents to employees the Eagle Award with a citation which generously describes the exceptional performance of the award winner. This sparks off contrived storytelling about the heroic deeds of exceptional employees to further reinforce the brand values among organization members.

At Barclays, all vacancies are announced internally, on Barclays' intranet and notice boards before external advertising. All prospects are carefully selected. A typical recruitment process involves screening of applicant, selection tests, board interviews and final interview with recruiting head of section or department. Barclays' recruitment processes focuses on the candidate's functional expertise and potential to live out the Barclays behaviours.

Internal communication

Internal communication at Barclays involves a mix of reinforcing and coherent vehicles and media to convey the brand proposition to employees and also to empower and motivate them in their roles. Substantial intra-organisation communication at Barclays is through the intranet. All employees of officer grade and above at Barclays-Ghana are on the intranet. Corporate news reports, functional information, development material, recruitment adverts are disseminated on the net, so are Barclays brand advertising pop-ups. For example, there are constant pop-ups of the Barclays 6 Bs and the 5Cs. All significant physical evidences at Barclays are 'branded'. At unit-levels every day, staff meetings are held to communicate task and brand related information. Research findings and implications are shared at such durbars and meetings.

All external communication is first communicated through internal sources. For a new recruit, the first point of brand experience is the distinct Barclays recruitment adverts. The format, general impression of print ad, the Barclays' font, logo (eagle), color (blue) and slogan (fluent in finance) are always consistently Barclays. The induction, training and development activities orientate new recruits to functional as well as Barclays' behaviours.

Brand-centred Organisational Resources

This stage relates to the internal resources and competences that are generated following the internalisation processes. Investment in brand-centred human resource management engenders brand manifesting behaviours. Barclays brand internalisation results into marketing strategies that occur within the organisation as an on-going change management, enabling Barclays' to have inbuilt flexibility and adaptability to customers expectations, enabling on-going change. Barclays' organisational capability reflects its skills, know-how and reputation to combining resources to create customer value. One unique Barclays' resource is their relationship with the loyal high valued Barclays' customers. One distinctive capability of Barclays is its ability to leverage its worldwide networks and partnerships to local customer advantage. Another is its ability to target superior brand propositions to chosen customer segments.

Institutionalization of the changes

At Barclays, improvements that stand the test of time are consolidated. Feedback received from Barclays' customers and employee dialogue systems enable Barclays to review its brand delivery. For example in 2004, corporate banking services were enhanced when a new corporate office was established in the prestigious Ridge neighbourhood of Accra to cater solely for corporate customers, following consumer research. Prestige centers are being opened in convenient and affluent locations to cater for upscale retail customers who desire convenient, fast and dedicated attention in plush surroundings.

At Barclays, there is constant review of management structures, systems and policies that do not match the brand values. For example, the previously tall and bureaucratic organizational structure has been flattened through removal of the deputy Managing Director and General Manager roles. New policies have been put in place to empower relationship and branch managers. HR policies and systems are structured to promote brand manifesting behaviours. Hiring, promotion and employee development are in favor of employees who best manifest brand behaviour. To consolidate the gains, Barclays revitalizes the brand with new brand projects and themes. Internal organization climate study, consumer equity study, and financial performance analyses are a few of the evaluation mechanisms Barclays employs to ensure it is on track with brand strategy.

Modeling the Internal Brand

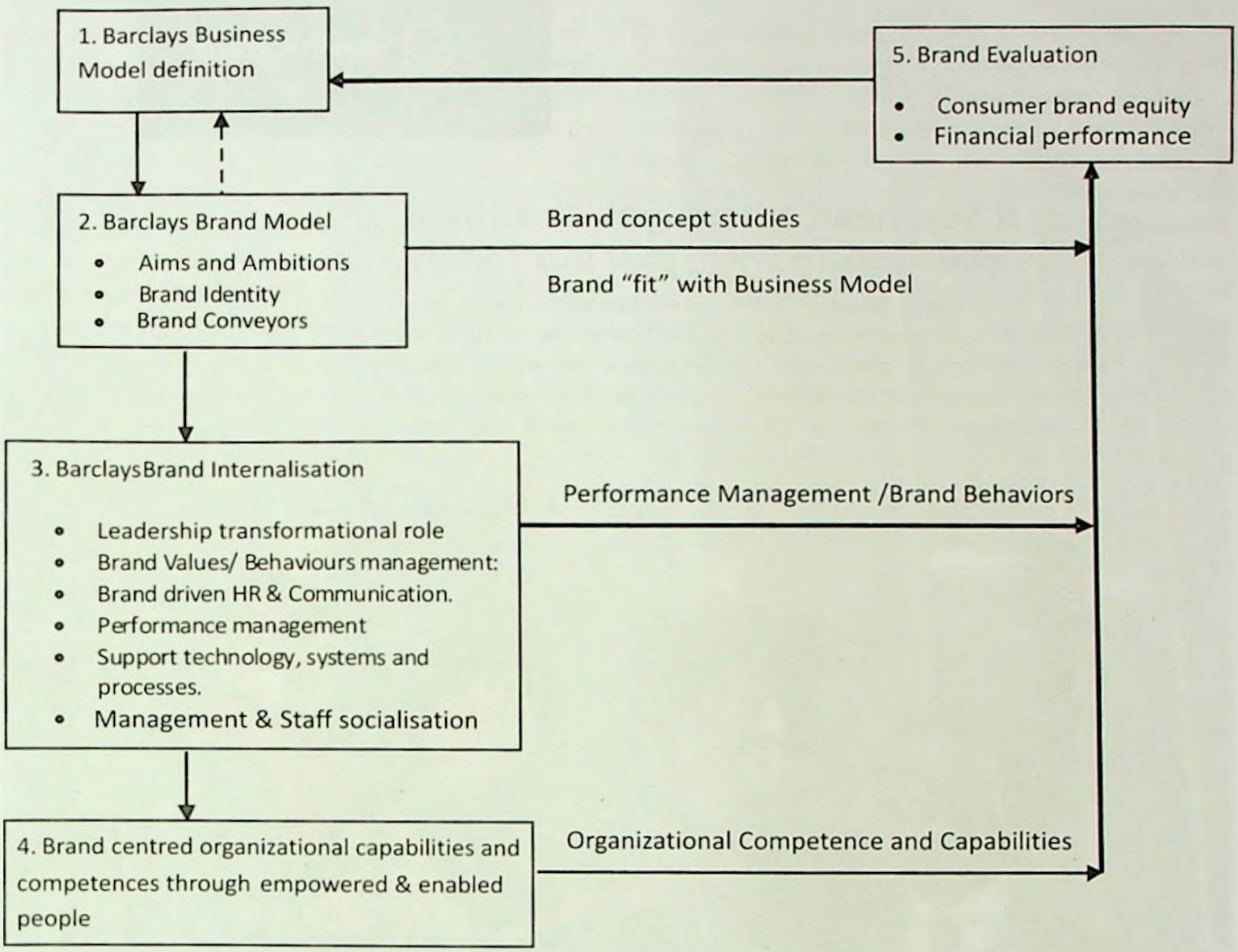
Following the study, the suggested Barclays' internal branding process is presented below in Figure 2. This model shows the processes followed in internal branding as well as the success factors.

Stage 1: Business model: As indicated in Figure 2 (above), the process began with a definition of the Barclays' business strategy

Stage 2: Brand model definition: The brand model was crafted to give expression to the business model.

Stage 3: Internalization of brand values: Internal brand internalisation leads to employee socialization into a common brand culture, a stage where

Figure 2: Suggested Model of Barclays Internal Branding Process



performance management was integrated with the brand strategy to engender the brand behaviors.

Stage 4: Generation of Brand centered organizational competences. The brand behaviors result in brand centered organization competences and capabilities based on enabled and empowered workforce.

Stage 5: Evaluation of brand internalisation: The notes on the right of the boxes (Figure 2) represent stage by stage evaluation mechanisms Barclays has adopted to ensure it stays on course with strategy. The box to the right represents Barclays' brand evaluation mechanism.

Discussion and Managerial Implications

Barclays brand financial value has dramatically appreciated since its 1998 brand centred restructuring. Since that time, more attention has been given to building the brand identity and internalizing the brand values among members of the Barclays organization. The focus of the brand internalization effort was to enable and empower members of the organization to manifest brand supportive behavior to internal and external customers. At Barclays-Ghana, the brand's internal and external commitments are balanced to overcome the possible multicultural workgroup challenges by aligning employees with the promise the corporate brand makes to the external market.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Appropriate investments in Barclays' human capital and supportive technology, product and service process innovations, and the re-organization and alignment to customer segments have centred on growing the influence of the brand so as to create saliency, image and trusting relationships with customers. Barclays' values management creates an environment that reinforces dedication to an enduring purposeful ideology and performance culture centered on the brand values.

Leadership in Barclays is not passive. It constitutes the face of the brand, setting the tone for all brand supportive behaviors. The brand values, expressed in behaviors, are the credo channeling staff energies to brand performance, rewarding those who enact their roles and ejecting those who cannot or are unwilling. In such an organisation there is little room for those who will not and cannot conform to brand supportive behaviors. The Barclays behaviors articulate the deep values that must be upheld and lived by members of the organization (Bergstrom et al, 2002). The implication for managers is that people in an organization must be orchestrated to reinforce a culture which builds and preserves its core brand values (Gronroos, 2000). This is why effective communication has become imperative in the internal branding process, in enabling and empowering employees to support the brand (Bergstrom et al, 2002).

The generation of brand-centered organizational resources and capabilities revolving on HR are the criticality of Barclays' internal branding. Marketing and performance management, are integrated by aligning internal organization with the brand propositions (Tosti & Stotz, 2001). The implication is that internal branding should focus on people-centered internally generated organisational capabilities to give organization competitive advantage and distinctive competences (Gronroos, 2000). Another implication is that companies seeking to capitalize services through an empowered work environment should first define their brand values, impose the tight ideology, screen and socialize willing and motivated people into that ideology, give tremendous sense of responsibility that comes with membership of that elite organization (Bergstrom et al, 2002; Tosti and Stotz, 2001).

Since successful organisational change depends on organisational culture and managing corporate culture is critical to the firm's success (Gronroos, 2000; Kotter & Heskett, 1992), there is need for an in-depth understanding of their transformational leadership roles in directing the internal brand building process. The implication is that the behaviors and actions of services organizations' leaders must convey meaning and messages that add to staff understanding of their roles during internal brand building (Vallaster & de Chernatony, 2005). Another implication is that considerable attention needs to be devoted to creating a purposeful culture guide references for multicultural services organizations.

Conclusion

There is paucity in the understanding of how internal branding is to be managed in order to create a coherent brand expression in multi-cultural service organizations. This paper sought to advance knowledge on internal branding in a multicultural services organization, highlighting the processes and factors that are critical to internal branding.

Barclays' response to the service culture challenge has involved a two-way recognition. Internally, the organization people must internalize the brand values, prior to brand promotion to external audience (LePla & Parker, 2002). Internal branding leads to internally generated competitive advantage, difficult to copy because they are culturally-based (Gronroos, 2000). Externally, the brand promise and values must be communicated and delivered to the chosen market and customers must recognize the brand values as their values that are attractive, relevant for the brand to become successful. The aim is to deliver a unique brand experience and also ensure that the consequential satisfaction would be ascribed to the service brand (Kapferer, 2007).

The generation of internal brand resources and capabilities, pivoted on empowered, dedicated and motivated human resource, and excellent customer service and innovation in superior products and processes were found to be the criticality of Barclays' internal branding. This requires an active role for leadership in making meaning and guiding the branding process, an elevated brand-centred role for HR, and investment in human capital.

Moving into the future it is intended that quantitative study research will be undertaken among multicultural services organizations to demonstrate the consistency of the internal branding process.

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In-depth Interview Guide
Good morning/afternoon.
My name is ------ and I am a lecturer at the GIMPA/University of Ghana. I am researching on Barclays brand development. I wonder if I could ask you a few questions. The confidentiality of your identity and responses are assured. Thank you.

1. Please describe your role at Barclays Bank. What specifically do you do? How exciting do you find it (Probe how well he/she is a Brand Ambassador)

2. Not long ago, Barclays was No.4 Bank in Ghana in profit terms. Today, it is the market leader. What did Barclays do to become No.1? What is Barclays doing right? (Probe the critical success factors and the role of Branding.)

3. When we say Barclays what comes into your mind? What images do you associate with Barclays? What images in your view do customers associate with Barclays?

4. What is Barclays' business about?

5. In your view what does Barclays Brand promise employees/customers. (Probe for functional and emotional benefits). How are these promises realized

6. How would you describe the Barclays culture? What values/behaviors are expected? How do you live out these behaviors? (Probe role of Leadership, Managers and Officers, and Customers.).

7. In your view, what does the organization do to ensure you enact the Barclays behaviors? (Probe HR practices: employee selection, training and development, reward schemes, appraisal and career development; role of leadership, internal communication & attitude management, etc).

8. How will Barclays look five, ten years from now? How will you achieve that? (Probe alignment with Barclays' mission and vision statements)

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ASSESSING THE IMPACT OF MICROFINANCE ON GARI PROCESSING IN NORTHERN REGION:
A THEORY OF HOUSEHOLDS IN THE WEST GONJA DISTRICT

James Natia Adam

Abstract

Cassava processing plays significant roles in reducing the poverty levels of women through job provision and increase in income levels. Available evidence shows that little research has been done particularly on assessing the impact of microfinance on gari processing focusing on a single approach. Cognizant of the various methodologies of impact assessment, this particular study used eight indicators to assess the impact of microfinance on households engaged in gari processing. Data were obtained from a random sample of 124 household respondents and 4 microfinance institutions. Empirical findings indicate that microfinance increases income levels of participants and thus their ability to acquire productive assets, save, expand and diversify production. The implication is that they have improved on their basic needs. However, participants indicate high interest rates on loans, lack of grace period on loans collected, lack of access to market information and poor processing equipment as the major setbacks. It is recommended that interest rates on loans should be reviewed so that more people can have access to loans to help them expand their production levels so as to escape the vicious cycle of poverty.

Key words: Cassava, micro finance, impact assessment, women and household.

1.0 Introduction

With the advent of microfinance program, there is hope for rural dwellers who see it as an opportunity to be part of the credit system in order to expand their capacities for growth and escape the vicious circle of poverty. Gari processing is one area that is attracting the attention of many microfinance institutions. The reason is that it holds the best prospects for growth and thus a great potential of lifting poor women out of poverty due to better returns resulting from value addition. Microfinance is the practice of providing financial services (loans, savings, insurance, etc) to people who live in extreme poverty and may not have access to traditional banking services. The Micro credit Summit Campaign Report (2000) indicates that more than 82.5 percent of microfinance clients are female, and this is because they are regarded as more trust worthy than males. Some scholars of impact assessment studies have neglected important component of households' variables and naively based their assessment or yardstick on savings and income mobilization alone. This paper attempts to fill this gap by providing information using eight indicators. The paper is divided into three sections. The first section looks at the background studies. The second is on empirical studies, and the last section is on findings of the study.

1.1 Background studies

Different approaches to assessing the impact of microfinance have been developed according to the objectives the evaluation tries to serve. The need for an impact assessment is that it offers the opportunity to review, reflect and analyse the experiences, achievements or successes and failures for decision-making purpose. Rossi and Freeman (1989) documented that;

'Establishing impact essentially is making a case that the program led to the observed or stated changes. This means that the changes are more likely to occur with program participation than without program participation. It does not imply that the changes always occur from program participation. Rather, it increases the probability that the changes will occur'.

Among the different methods are those developed under the AIMS and Imp-Act programs. The tools and indicators developed under AIMS used to undertake a cross-national study on the impact of microfinance embraced both economic and non-economic dimensions of the well-being of poor people in India, Peru and Zimbabwe at the household, enterprise and individual levels. Chen and Dunn (1996) indicate that using a Household Economic Portfolio Model (HEPM) seeks to assess impacts at household, enterprise, individual and community levels and thus produce a fuller picture of the overall impacts. It does have the profound disadvantage of making assessment demanding in terms of costs, skilled personnel and time. If used with limited resources it risks sacrificing depth for breadth of coverage of possible impacts (Hulme, 1997).

Mayoux (1997), Goetz and Sen Gupta (1996), Schuler and Hashemi (1994) and Hashemi et al (1995) also assessed impacts using non-economic/social indicator variables such as educational status, access to health services, nutritional levels, contraceptive use, etc. These social indicators became popular in the early 1980s and have recently been extended into the socio-political arena in an attempt to assess whether microfinance can promote empowerment.

1.2 Problem statement

In recent times, there has been an upsurge in the provision of microfinance services to micro entrepreneurs, especially those from poor households and Self Help Groups. To appreciate development and empowerment of marginalised women in the decision making process, their real disposable income needs to increase on continuous basis through productive and profitable investments. This suggests that their investments will have to be financed either through own savings/equity or credit. Previous studies by Sanzidur (2003) and Adesina et al (1996) show that access to credit increases farm efficiency and profit.

The extent to which the advantages of microfinance are achieved by any project cannot be determined unless an impact assessment is carried out with much attention. The little empirical evidence on this important subject serves as a hindrance for any meaningful policy intervention on microfinance.

In the context of microfinance, it is worthwhile to assess its role in income diversification, stabilization and consumption smoothing, and whether it promotes self-insurance through savings mobilization and wealth accumulation. The critical research questions that need answers are: *what are the socio- economic and demographic characteristic of gari processors? How much is loaned to gari processors? Have microfinance programs helped gari processors gain more control over their resources and improve the household welfare? And what is the level of satisfaction of the beneficiaries?*

The priority of the research was to assess the impact of microfinance with the view of providing policy recommendation for microfinance institutions and perhaps donors. The purpose of the assessment was to identify the socio-economic features of gari processors, provide information on the amount of loans given to clients, examine whether participation in a microfinance programme leads to improvement in the socio-economic welfare of households, and also present information on clients level of satisfaction.

Khandker (2003), for instance, indicates that 90% of the microfinance program participants in Bangladesh in the 1991/92 survey and 70% in the 1998/99 survey are poor. Montgomery (2005) found that 70% of microfinance clients of the Khushhali Bank in Pakistan are poor. This justifies the need to carry out this particular study in order to enable donors/microfinance institutions draw strategic management information to better orient themselves to either sustain their programs or quit. Secondly, it is to inform donors or microfinance institutions to know if their resources are being used for the intended objective in order to evaluate the social return on their investment.

This paper assesses the impact of microfinance on gari processing using a household theory (considering income, assets, expenditure, livelihood, etc) in the West Gonja District of Northern Region. Goetz and Gupta (1995) and Peace et al (1994) pointed out that assessing the impact of microfinance is to assess the impact at an individual/household level because it is relatively rare. Bliss (1993) expressed that individuals are better able to evaluate small changes in their well-being directly related to their current status. The assessment centres on clients of Bonzali Rural Bank, Damongo Cooperative Credit Union, Manteso Friends of the Earth Center and Susu groups.

1.3 Methodology

The most effective approach was Participatory Rural Appraisal approach which involved the combination of several methods and techniques. Purposive and simple random samplings, case studies, quasi-experiment (this seeks to compare the outcomes of the intervention with a situation of what the outcomes would have been, had there been no intervention) and control group method (it involved a before and after comparison of a population that received a specific loan (clients) and an identical population (non-clients) that did not receive the loan in the past four years) were used.

Data was obtained from 128 respondents. Specifically, quantitative data was collected on demographic features such as age of the respondent, residential status, household size, years of education, years of experience in gari processing and other household characteristics viz household income, assets, returns, loans and interest rates. Data was also obtained on the number of contacts made to microfinance institutions and duration for loan repayment. Other significant areas that data collection covered were on the changes emerging from program participation (by examining purchases and involvement in political participation) and the level of clients' satisfaction (looking at savings mobilization and valued skills acquired).

The impact assessment is based largely but not exclusively on a quantitative approach hence data was analysed with the use of SPSS computer software. The statistical presentations include mean values and measures of dispersion.

SECTION 2: EMPIRICAL STUDIES

2.1 Cassava in the economy

Cassava is one of the most important root crops in the tropics and subtropics ranking the fifth in the world production. It is food for more than 800 million people, (FAO, 1998), and more than 200,000 people mostly Senior High students, eat gari daily especially during the night after preps. Cassava is widely grown in Cote D'Ivoire, Ghana, Nigeria, Tanzania, Uganda, Zaire and many parts of Latin America. In Ghana, for instance, it is cultivated in 8 out of 10 regions. According to ISSER (2000), output per hectare of cassava has increased from 7.1 million metric tonnes in 1998 to 10.2 million metric tonnes in 2002. The per capita consumption index of cassava is 148 kg/yr and contributes about 19.16% to agricultural GDP (MOFA, 1990). Also, in Nigeria for instance, outputs of cassava is about 39 million metric tonnes and this is because cassava production has moved from subsistence food need production to commercial, industrial and export production (Adeniji, 2006). This implies improvement in food security via reduction in post-harvest losses and thus increased income or household purchasing power in order to meet vital services such as health and education of their children.

Besides gari, cassava is also used for the extraction of starch for bio-fuel. In fact, the consumption of starch in the industrialized countries has been increasing in recent times due to its uses in the cosmetic, confectionary and pharmaceutical industries. For example, China, Thailand and Vietnam are a few countries making tremendous imports of starch.

2.1 Uses of loans

Goetz and Sen Gupta found considerable differences in terms of the control of loans by female clients.

Whereas the decision to acquire loans maybe influenced by the need to acquire new stocks and pay wages, Goldberg (2005) studies in Bangladesh suggest that loans are used for business expansion, managing risk and volatility. Husain (1998), carried out an evaluation of 500 clients and found that 80% of the average loan went to "productive investments" such as livestock, petty trade, land purchases, etc. Of the remaining 20%, about half went to consumption and half went to paying off existing loans and mortgages. He added that over 45% of clients studied used loans to cope with income variations caused by personal crises and crop losses. Also, Coleman (1999) noted that in some villages of Bangladesh two-thirds of the clients regularly borrow from a moneylender to repay their village bank loans.

By this assertion, it is vital for clients to have some capacity building training for proper management of loan facilities in order to strengthen their business growth. Strong training components have a higher probability of success, particularly as far as women micro-entrepreneurs are concerned, Berger (1995).

2.2 Assessment indicators

Assessing the impact of microfinance on household income, expenditure, assests and livelihoods are undoubtedly important part of impact assessment. According to Barnes (1996) assets are useful indicators of impact because their levels do not fluctuate as highly as other economic indicators and is not simply based on an annual estimate. In addition, (Sherraden 1991) and Sebstal et al (2000)) indicate that data on expenditure or assets are good proxy indicators for income and wealth levels of households. Gaile (1997) argued that improving the credibility, utility and cost effectiveness of simple approaches was where the greatest gains in impact assessment could be realised. By this assertion, the author developed the following measurable domains/indicators for assessment

1. The family lives in a comfortable house with a zinc roof, and each member of the family is able to sleep in a bed instead of the floor or mat.
2. Family members have potable drinking water by acquiring decent water containers and filters.
3. All children in the family of school going age are attending school with neat school uniforms, bags and adequate learning materials such as mathematical set, books, pens, pencils etc.
4. Family members have adequate and neat clothing for every day use, and sleep under a treated mosquito net to protect them from being bitten by a female anopheles mosquito carrying the malaria parasite.
5. The family has additional sources of income, such as animal rearing, back yard gardens and any venture that can generate income for family use in the event of liquidation of first business.
6. The clients maintain an average annual balance of at least GH¢ 150 in their savings Accounts.
7. No member of the family goes hungry any time of the year, has kwashiorkor or symptoms of kwashiorkor and eventually dies of malnutrition.
8. The family can take care of its health needs by at least paying a premium of GH¢ 7.20 under the National Health Insurance Scheme.

SECTION 3: RESULTS

3.1 Socio-economic and demographic features

Gari processing is biased towards women (over 95%) with the average age of 42. The finding is similar to previous studies by (Gloria, 1998) that 92% of operators engaged in traditional processing of food stuffs are young and energetic women. They have attained a minimum of Junior High education and have average of 13 years of experience in the industry. The results show that fifty-three percent of respondents are female household heads taking care of 7 people averagely in their homes. This implies that their basic needs such as health, food and shelter largely emanates from the industry.

The results further indicate that the respondents have made at least two visits in the last four years to Bonzali Rural Bank (55%), MAFEC (Manteso Friends of the Earth Centre-local NGO) 27%, credit union 10% and Susu groups 8% for an average loan of GH¢ 321.87. They explained that the loans were used to expand and diversify production. The findings also reveal that the respondents made an average net profit of GH¢347.87 after joining the scheme compared to GH¢ 45.50 (control group). The profits are a clear indication that the industry can propel development of the individual and the society at large because they are able to save and invest. The average number of employees is 2 and is either from the family or hired because the work is laborious. The results show that a minimum of GH¢ 2 is paid as wages for hired labour while GH¢ 0.20 is paid as tax on a basin of gari sold.

Table 1: Means of variables used in the analysis

Variables	Measuring unit	Mean	Minimum	Maximum	Standard deviation
Age of respondent	Years	42	19	80	10.75
Experience	Years	13	2	40	10.72
Education level	Years of schooling	7	3	20	3.57
Household	Number of size	7	4	15	3.42
Labour	Number of employees	2	1	6	1.68
visits to MFI	Number/times	2	1	4	0.98
Loan (capital)	Ghana cedi	321.87	200	500	101.76
Tax	Ghana cedi/basin	0.36	0.20	0.50	0.13
Wage rate	Ghana cedi/day	2.62	2	4	0.72
Sales	Ghana cedi/'alonka' bowl	1.12	0.80	1.50	0.21
Home consumption	'Alonka' bowl	22	4	80	20.09
Net Profit*	Ghana cedi	45.50	25	125	16.03
Net Profit**	Ghana cedi	347.87	20	965	270.41

Source: Field survey, 2008. *, ** represent profits obtained before and after joining microfinance scheme in the last four years respectively.

3.2 Program participation impacts

From Table 2 below; the findings show that clients spend on durable assets (e.g. purchase land, bicycles, fridges, etc) as a store of wealth that can be divested or liquidated to meet an unexpected financial need. The respondents indicate that it has increased their level of participation in decision-making process as they determine and purchase the household needs. Besides, some are in to active politics as their level of political participation has improved. For instance, 1 out of the 4 Assemblywomen used her proceeds to campaign for power, while 9 who are Unit committee members also said that they used part of their money for their electoral process.

The results further indicate that (67%) of households are pursuing a risk reduction strategy by diversifying some of their resources in order to decrease their chance of a loss from structural factors, like price fluctuations and the vagaries of the weather which could affect supplies of raw materials and thus increased inflow of income from different income sources.

Table 2: Impact Assessment of microfinance programmes Clients vs. Non-clients

Variables	Household	
	Clients/ participants (%)	Non-Clients/ Control group (%)
Acquired productive assets	79	41
Increased household income	72	58
Increased number of employees	75	25
Increased in savings	68	32
Increased in expenditure	57	43
Diversification of resources	67	33

Source: Field survey, 2008

The evidence gathered shows that beneficiaries have increased their household income by seventy-two percent. It also shows that beneficiaries use part of income to pay a premium of GH¢ 50.4 for the health needs of their households under the National Health Insurance Scheme (91%), acquired treated mosquito nets (74%), containers for harvesting water (93%), mattresses (47%). Furthermore, respondents have average stock worth GH¢ 124. These include; poultry, animals, cereals, tubers and some appreciable amount of vegetables. The findings correspond to conclusions reached by Pitt (2003), Khandker (2005), Coleman (1999) and MkNelly et al (1998) that microfinance programmes have significant positive effect on participants' consumption.

3.3 Level of satisfaction

With respect to program satisfaction, they cited the acquisition of valued skills and knowledge in savings. A respondent expressed her savings behaviour in relation to what the Holy Bible (Proverbs Chapter 6: 6-8) teaches about the essence of savings.

'The ant gathers food in small bits and stores it during the dry season as preparation for the rainy season'. I watch the way the ants behave and I appreciate their value for savings. By and large, I mobilise and use scarce productive resources efficiently and save some like money into my saving account for the future when I may be feeble and can no longer work to earn a living'. (Mariam Al hassan)

Although, microfinance is available to women micro entrepreneurs the respondents explained that high interest rates on loans which range between 23 and 28 percent, lack of grace period on loans collected, time wasted attending 'un necessary' meetings, lack of access to market information and lack of improved quality processing equipment were some of the challenges they still faced.

Conclusion and Recommendations

The evidence shows that women are better off with microfinance than without it and this justifies the decision of many programs to recruit them and to develop products that suit their needs. The study reveals that participants have increased their assets base, acquired knowledge in savings and improved skills in production diversification. However, clients indicate they pay high interest rates on loans (23 and 28 percent), have no grace period on loans collected, lack quality processing equipment and have no access to market information.

It is recommended that interest rates on loans should be reviewed by microfinance institutions operation in the study area to attract more willing-beneficiaries. Also, clients should be spared some time before paying back loans. Ideally, they should start paying loans some two to three months after loans are granted to them. Finally, appropriate technology should be developed perhaps by the Technology Consultancy Center, Kumasi to help reduce production cost and increase the quality and volume of gari processed to increase income levels.

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THE ORGANISATION DEVELOPMENT CONSULTANCY AGENDA FOR DEVELOPMENT PROGRAMMES IN GHANA

| *Rev. Nicholas Darko* |

ABSTRACT

Despite its humanistic values, organisation development consultancy practice appears to be facing implementation challenges, especially regarding development programmes in the public and private sectors. OD's agenda for development programmes is to ensure its values yield benefits that could be translated into effective programmes. This is because all the development programmes involve change, which in one way or the other had not been managed effectively in the past, given the many fads of change management.

The main objective of this study was to assess the benefits and challenges of OD as a consultancy practice, and create the needed awareness to enable consultants; policy makers and managers encourage its use in development programmes. This case study, through snowball sampling procedure, recorded the perceptions of 35 respondents, 16 of which are OD practitioners and 19 non OD practitioners.

The findings confirmed that OD as a consultancy methodology has enormous potentials to facilitate development programmes in Ghana. However, challenges such as reliance on 'expert' consultants and opposition by policy makers need to be overcome through education and awareness creation if OD is to survive as a consultancy practice. Far reaching implications for OD practice were provided.

Key concepts: development; organisation development, development programmes in Ghana; values of OD; benefits of OD; consultancy practice; organisational culture, change.

Introduction

1.1 Background to the Study

Organisation development's enormous benefits to development programmes in developing nations, need to be given the centre stage on the development agenda. This is because OD practice is value laden (OD Institute, 1991; Yeager, 2002; ODNetwork, 2003) and could aid effective delivery of development programmes. Notwithstanding the ample benefits that OD practice and its values have to offer development programmes in the third world, it is faced with challenges that inhibit its rightful role in the delivery of development programmes. The practice of OD appears alien to prospective clients in developing nations, apparently, because of institutional bureaucracies that pay lip service to participation in problem-solving. The Ghanaian case, which has attracted the attention of the World Bank /the International Monetary Fund (IMF) and related development agencies, is one of such cases, which prompted this study to ascertain the extent OD, as a consultancy method, could benefit the effective delivery of development programmes.

Ghana, a developing nation with an estimated population of over 20 million, lies on the west coast of Africa. Her neighbours are: Burkina Faso on the northern border with Cote d' Ivoire and Togo on the western and eastern borders respectively. A former British colony, Ghana's first post-independence government was led by Dr. Kwame Nkrumah. Dr.

Nkrumah and his government concentrated on major infrastructural projects and achieved some milestones, including the building of a hydro-electric dam to supply electricity, and the construction of a harbour to facilitate imports and exports of goods. Between 1966 and 1992, the greater part of the political period was occupied by military regimes. Development programmes were frustrated by the frequent military coups at the time. Notwithstanding attempts at instituting development programmes at the national level by succeeding governments, by 1983, the rate of economic decline had become disturbing. The government in power had to accept IMF/World Bank conditions for the much expected economic recovery programmes. Consultants of these development programmes were selected by the IMF/World Bank. These consultants were mainly "expert" consultants,(economists, accountants, lawyers, engineers,etc) most of whom were not familiar with the cultural terrain of Ghana. Some OD consultants, however, found themselves in this big task of facilitating institutional reforms.

1.2 OD in Ghana

Kumawu (2006), one of the foremost OD practitioners in Ghana reports in the International Organisation Development Association's newsletter that, OD as a discipline is new in Ghana. Its emergence was as a result of the World Bank bringing OD consultants to assist in the institutional renewal programmes in the mid 1980s, but "expert" consultants had operated in the country for decades. It must be noted that the World Bank's influence in bringing OD practitioners could have been the beginning of OD practice in Ghana. These OD consultants were initially linked to institutional programmes, which formed part of the economic restructuring of Ghana. The practice of OD encountered implementation challenges at various levels of these development programmes. Kumawu further groups OD practitioners in Ghana into 3 main generations:

a) Those trained outside the country and recruited by the World Bank to help in the economic reform programmes.

b) Those trained by partnerships between organisations such as Organisational Capacity Improvement Consultants (OCIC) and European technical assistance programmes before 2003.

c) Those who have recently been trained through the partnership programme between the OCIC and the University of Cape Coast.(UCC) (This is the only accredited OD programme in Ghana that awards diploma, masters and doctoral qualifications.) Ibis and the OD centre in Ghana are also actively training OD practitioners.

Thus, OD practice has produced three generations of OD practitioners. Each group may have their own peculiar challenges in practicing OD but they all share common implementation challenges of practicing OD.

1.3 The Problem

The foregoing unveils the background of a growing cadre of OD practitioners who are practicing or about to practice in an environment which does not subscribe fully to the values of OD as an emerging consultancy practice. The problem constitutes the yawning gap of lack of acceptance and implementation of OD: a viable consultancy methodology that could inculcate humanistic and cultural values in contemporary economic contexts leading to sustainability of development programmes. The existence of this problem is not unknown to the World Bank Knowledge and Learning Group in Africa. The former head of the World Bank, Paul Wolfowitz, succinctly puts it this way:

> *"...We often talk about building institutions or building capacity. ...that sort of suggests you can come in like an outside contractor and bring some bricks and mortar and you construct capacity. It doesn't work that way. You grow it. It's got to be indigenous. It's got to have indigenous roots... you can help people do it. But they need to do it themselves." (World Bank, 2005).*

The Bank reveals that, data from 78 client feedback surveys undertaken Bank-wide during the period 1995-2003 confirms countries perceive the Bank as less effective in empowering stakeholders so it needs to improve on certain behaviours. Major issues were empowering the country partner, adapting knowledge to local context and behaving as enabler. (World Bank, 2005)

The main purpose of this study was to assess the benefits and challenges of OD as consultancy practice and create the needed awareness to enable consultants, policy makers and managers encourage its use in development programmes. Specifically, the following objectives were explored:

a) Determine the impact of consultancy methods on development programmes.
b) Find out how OD values could benefit development programmes.
c) To determine the implementation challenges of OD practice and how they could be addressed.

To achieve the objectives, the study sought to answer the main question: How could the benefits of OD, as an alternative consultancy methodology, that could effectively facilitate the desired outcomes of development programmes, be made acceptable to policy makers by addressing identified challenges of OD practice?

Further, the following specific questions were answered:

a) How do consultancy methods impact development programmes?
b) What are the benefits of OD to development programmes?
c) What are the implementing challenges of OD and how could they be addressed?

The rationale for the study was that it provided awareness to policy makers, consultants and managers of the beneficial role OD practice could play in the effective implementation of development projects in Ghana.

Section 2 of the study examines the theoretical context of development programmes and OD values. Section 3 outlines the study approach, backed by justification of the qualitative method used. Section 4 presents findings and discussion. Section 5 draws conclusions and implications of the study to policy makers, consultants and managers and also for future research.

THE THEORETICAL CONTEXT OF DEVELOPMENT PROGRAMMES AND OD

2.1 Meaning of Development

The background to this paper leads one to pursue a path that can conveniently bring out what development means. Development connotes different meanings to different people. As a prelude to a search for what development means to organisation development, Burke, (1994, p. 11) in an attempt to clarify and confirm the definition of development, quotes this powerful description by Ackoff:

> *Growth can take place with or without development (and vice versa). For example, a cemetery can grow without developing; so can a rubbish heap. A nation, corporation, or an individual can develop without growing...(Development) is an increase in capacity and potential, not an increase in attainment... It has less to do with how much one has than with how much one can do with whatever one has. (Ackoff, 1981:34-35 quoted in Burke, 1994. p. 11)*

Here, development implies a change that aims at increasing capacity and potential of the individual or the organisation, to be able to achieve with whatever means available. This is what OD practice advocates in part. At a conference in Arusha, Tanzania, in December, 2005, the World Bank produced a concept note on social development that among other things, described *social development* as 'process of increasing the assets and capabilities of individuals to improve their well being' (World Bank, 2005). It also mentioned the capacity of social groups to exercise agency, transform their relationships with other groups, and participate in development process. Further, effective management of change was stated as a key element to change.

As to whether the objectives of development as described have been achieved over the years, brings to mind how development programmes had been implemented in the past. The Operations Evaluation Department of the World Bank, in its evaluation documents highlighted various conceptual issues that inhibit the development processes, ranging from need for choices of interventions to lack of country-specific private sector development strategies (World Bank, 2001(a), 2001(b) 2001(c); 2002) The World Bank and its affiliates, through these documents have shown concern about issues on how to enhance capacity of the recipients of development programmes so that they could sustain the programmes.

2.2 Development Programmes in Ghana

Kumawu and Kraus' (2007, p.8) belief that, 'OD is well suited for the African environment because it fosters ownership within the organisation, builds internal capacity inside, equips the organisation and its members to continue to grow and respond to changing demands in the market place and the population', makes OD practice a suitable match for the issues raised in the evaluation documents of the Operations and Evaluation Department of the World Bank.

The literature on development programmes in the 1980s is unambiguous on the apparent unsuitability of the methods adopted by some World Bank consultants. They mentioned issues ranging from "expert" consultants insisting Ghanaian managers in the public sector to accept ready-made programmes and, particularly, approaches that were not suitable for the Ghanaian environment-Hutchful, (2002, p. 96); Aryeetey et. al, (2000, p. 1-2); Brydon and Legge (1996, pp. 88-102); (Uddin & Tsamenyi, 2005, pp. 667-668). Some of these writers confirmed that the people whose capacities were supposed to be built were ignored in designing the process of capacity building. For example, Hutchful, (2002) pointed out that managing directors of state-owned enterprises were not happy with the situation where they had to work with corporate plans they did not prepare themselves as part of a programme of restructuring the state-owned enterprises. In a separate development, Ngouo(2000) asked a thought provoking question: 'How effectively did these consultants play their role of responsible agent of change in view, inter alia, of the special nature of different organisational cultures that characterised the African public administrators concerned?' Ngouo was writing on the challenges of the OD consultants in the context of structural adjustments in Sub-Saharan Africa.

The above impressions by these writers, who were mostly writing from economic point of view of development programmes, give insights that call the attention of OD practitioners to offer an alternative, because the "how" of implementation was not fully considered as a major issue, as far as the humanistic, culture, collaboration and other aspects of implementation which constitute the OD agenda were concerned.

We, however, need to remind ourselves at this point that OD has moved from the mainly humanistic approach in the 1950s/1970s. Newman et al, (1999, p.,216) from the Tavistock Institute, London, argue that changes since the 1970s challenge OD consultants to develop a portfolio of consultancy methods that enable them not only to address cultural changes but also structural changes. They further offer that, ' OD practitioners need to increase their ability to understand and work with change managers, and their consultants, who see the world predominantly through technological and economic years.' Recent challenges of OD, arising out of global economic upheavals have brought about an awakening for OD to be relevant. For example, of late, there have been challenging headlines such as OD in Crisis; Wanted: OD More Alive than Dead. (Karakas,2009; Boyd,2008; Greiner and Cummings, 2004; Worley and Feyerherm, 2003;) These show that OD may not be a perfect methodology but its humanistic values are still relevant, once they are properly related to emerging economic issues.

2.3 The Journey of Development Programmes so Far

The challenges that faced consultants in facilitating development programmes could be better captured if a catalogue of the journey development programmes have gone through in Ghana since the 1980s is given. This approach also helps to give a clear picture to the context of this study.

Vordzorgbe & Caiquo, (2001) in their status review report on Ghana, submitted to the National Development Planning Commission of Ghana and International Institute for Environment, London give coherent catalogue of development programmes at the national level. The Guggisberg Plan of 1919-1926, which was the first of such initiatives, was seen more as a national investment programme. The first ten-year development plan was condensed into a 5 year plan (1951-1956). A consolidated development plan (1957-1959 was initiated at independence. The second development plan was implemented from 1959 to1964. The government of Dr Kwame Nkrumah promulgated the seven year development plan (1963-1970), which though was short-lived because the government was toppled by the military in 1966, achieved some successes in terms of infrastructural development. There were other shorter plans (1970-71) introduced by other governments. Subsequent military regimes introduced their own brands of development plans. Other plans were the 5 year development plan (1975-1980). Though the World Bank and the IMF had entered the scene earlier, it was in the 1980s that their presence became intense. Conditions were introduced to "heal" an ailing economy. The years 1984-1986 saw the impact of the operations of the economic recovery programme of the World Bank. This situation was not peculiar to Ghana; other developing nations were having their fair share of what came to be known later as "World Bank conditionalities." Kumawu, (2006) confirms that the World Bank at this stage introduced OD consultants. Having gone through the structural adjustment, economic recovery, public sector reform, (1994), and related programmes, reflections unveiled numerous lessons. A report catalogues the following:

- Very few development programmes were fully implemented over their planned time frames;
- Stakeholder participation in the design of development plans was either non-existent or very low and ineffective;
- There was little commitment by most previous governments to development programmes they formulated.
- Concept of implementing development programmes within the long term framework was relatively new.(Vordzorgbe and Caiquo 2001)

The above concerns evoke a need for a more human centred approach, from which recent development programmes are picking valuable lessons. Growth and Poverty Reduction Strategy (GPRS) 1 of the Ghanaian Government emphasised five areas namely:

- Macroeconomic stability;
- Production and gainful employment;
- Human Development and Basic services;
- Vulnerability and exclusion.
- Governance.

  This was reviewed under GPRS 2 to conform to international agreements such as the Millennium Development Goals aimed at the following areas:
- Private sector competitiveness;
- Human Resource Development;
- Good governance and civic responsibility

The GPRS 2 aims at bringing income of average Ghanaian to the level of middle-income countries by 2015(NPDC, 2008).

In terms of infrastructural development, some successes were achieved. However, we are few years away from 2015. An examination of the 'success story' may be worthwhile.

2.4 "The Success Story"

An International Development Association document reporting on Ghana stated that:

> *Ghana is one of the best-performing economies in Africa. By improving policies and institutions, and investing in basic infrastructure and basic services, Ghana has brought down poverty levels from 52 percent in 1992 to 35 percent in 2003. It is likely to surpass the Millennium Development Goal of*

halving poverty by 2015. Economic growth has averaged 4.5 percent from 1983 through 2000, but accelerated to 5.8 percent in 2004 and 6 percent in 2005 in response to the government's programs of reforms. Ghana's access to electricity is the highest in Sub-Saharan Africa outside South Africa. All of this augurs well for Ghana to achieve middle-income country by 2015.(IDA, 2007)

It is on record that there has been marked improvement in the implementation of development programmes in Ghana. In sharing the Ghanaian experience on harmonizing national development programmes, Gyan-Baffour (2003) explains that Ghana has been able to synchronise the Ghana Poverty Reduction Programme and the Millennium Challenge Goals. This confirms how far Ghana has come in managing development programmes. Nonetheless, the concerns raised in World Bank documents cited in this study show a gap in the implementation of the development programmes. The attainment of infrastructural development would not necessarily ensure sustainability. The issue of the human factor that empowers and achieves sustainability of development in the public interest (Uddin & Tsamenyi, 2005. p. 648) continues to be a major concern in Ghana.

The 'credit crunch, the latest challenge to the development efforts require sober reflection. In less than 6 years to 2015, Ghana is caught in an economic web, which requires another approach that counts the worth of the human being rather than the theories that are known over the years but has not been able to solve the challenges. As at now, experts are not sure as to the extent the credit crunch would affect the Ghanaian economy. However, recently the business section of the Ghanaian Times reported that, 'The volume of remittances from Ghanaian abroad has dropped by some 16 per cent, in line with general expectation of a possible dip.'(The Ghanaian Times. April 14 2009 p 27). This could be a possible effect of the global credit crunch, which development programmes need a structured approach to handle. What about the inflation which has gone up to over 20 per cent? This may need to be handled in a different way.

The issue is: Could a consultancy approach which is devoid of collaboration, humanistic and cultural elements be able to handle this? Here, we are talking of the process of the development programmes and not the content, which had been the focus of consultants in the past. OD's approach to consultancy in such circumstance is focusing on the human capital, but at the same time recognising contemporary issues in business. For example, OD needs to add some speed to its humane and cultural sensitivity. Darling and Heller(2009) provide blue prints for OD practice in the current era of the economic challenges, such as the credit crunch. They deal with issues such as self-perception and purpose fulfilment; internal power versus external force and adaptive managerial leadership. They further introduce what they term values of joy and hope, which should be set and achieved. They make interesting additions to the OD consultant's tool kit, which could make OD more relevant in the current economic conditions. This should include the delivery of development programmes, the focus of this study.

2.5 OD, Culture and Development Programmes

At a recent national conference of the Institute of Chartered Accountants in Ghana, three prominent Ghanaian citizens speaking on the main theme, *Ghana at 50 years: The Journey to Middle Income Status;* from the backgrounds of culture, industry and science and technology were unanimous on the fact that Ghana's quest for middle income status could only be achieved if the present cultural orientation which is not pragmatic enough is transformed to suit a culture of commitment and transparency. After giving their professional views on the topic, one trend that cut across their submissions was the *"how"* of achieving middle income status as a nation by the year 2015-the target of the Millennium Challenge Goals of the United Nations which most developing nations are working hard to achieve. (Oteng-Gyasi, 2007; Sarpong, 2007; Andam, 2007). If an OD practitioner were to have spoken at this conference, he/she would have shared the views of the speakers. The endemic problem of effective implementation of development programmes arise from a culture that does not encourage shared responsibility, open communication, and in fact stifles open communication. The social structure of Africa and for that matter, Ghana, requires a reorientation that the OD literature provides in the following paragraphs.

Kumawu & Kraus, (2007) describe the social structures of the society, while encouraging the advantages of the extended family system that helps the African to look after her elderly population; they recount the disadvantage of using this same good structure to encourage the appointment of family members who may not be qualified to public positions. They give the following as bedrock of democracy, (not political democracy) cherished by OD:

- open participation in decision making;
- shared power;
- open communication and information;
- willingness to collaborate; and
- citizens taking responsibility for their own action.

The writer of this paper shares Kumawu and Kraus' view that OD teaches individuals and organisations (and I add, nations) to practice the above mentioned virtues of democracy. OD definitely has values that can stem the tide of implementation challenges of development programmes in the Ghanaian context. What OD does; the results OD seeks to achieve, and how these results are achieved are summarised in the following definitions of OD:

a) Organisation development: Collaborating with organizational leaders and their groups to create a systematic change and root-cause problem-solving on behalf of improving productivity and employee satisfaction through improving the human processes through which they get work done. (Broom.2007, p. 1)

b) OD involves facilitating an organisation's ability to self-reflect, self-regulate, and take control of its own processes of improvement and learning with a view to effectively achieving its reason for existence.(Kumawu and Kraus, 2007 p. 21)

c) ...a participatory and process-oriented approach which is in line with general participative approaches to development itself and also the methods used....(James, 1998,. P.16)

D) Organisation development is a long-term effort, led and supported by top management, to improve an organisation's visioning , empowerment, learning, and problem-solving processes, through an ongoing, collaborative management of organisation culture-with special emphasis on culture of intact work teams and other configurations-utilising the consultant-facilitator role and the theory and technology of applied behavioural science, including action research(French and Bell, 1995, p. 28)

The above definitions inform what OD is about. It is not uncommon to come across numerous definitions of OD in the literature, which build on existing definitions or even attempt to introduce something new to OD. This could be because probably, challenges of the World economy continue to provoke OD to find a new bearing as a consultancy practice. However, the spectrum of what OD stands for is broadened by Grieves' (2000. p. 396) work on the origins of OD. In his attempt to recapture the origins of OD in contemporary context, he identifies OD with "personal development, organizational learning, analyses based on meanings informed by newer methodological approaches (e.g. Symbolic interactionism, discourse analysis, than simply systems, concerns with ethical and green issues." (Grieves, 2000). In all this, the humanistic and cultural relevance of OD consultancy practice remains intact.

2.6 Change and OD

Generally, OD practice applies action research, participation, organisational culture, humanistic values, and organisational learning to effect change. (Burke, 1994; French & Bell 1995; Grieves, 2000). Further, Schein, (1998. p. 1) sees the OD way as process consultation, which basically aims at helping individuals, groups, organisations and communities to help themselves. He confirms that the ultimate aim of process consultation results in the establishment of effective helping relationship. Schein's idea of the three types of consultancy roles of *expert, pair of hands and collaborative* has been simplified by Peter Block in his book, Flawless Consulting (Block, 2000, pp. 21-27) This paper assesses collaborative role as a solution to delivering effective development programmes in Ghana. The benefits of OD are embedded in the values/characteristics of the consultancy approach being advocated by the above mentioned writers. However, as the values of OD seek to establish OD as a profession, it is bound to face implementation difficulties as an approach to consultancy which is less known in Ghana. It stands to battle with the cultural orientation of the implementers of development programmes.

2.7 Conceptual Framework

A conceptual thinking arising out of the review of the literature could be a strong collaboration among stakeholders in development programmes, based on the understanding that culture is relevant for effective implementation of development programmes. Once this is achieved through normative re-education, beneficiaries would collaborate with other stakeholders. Participation would, therefore, improve and the programmes would be implemented in a humane manner. These values would assume understanding among the experts, OD consultants who would be leading the process, the policy makers and the managers of the project. In other words, linking culture, collaboration, participation and humane approach in a network; 'expert' and OD consultants, policy makers and managers in a similar network could produce the required development. Actualising this concept would yield sustainable development. (See Figure 1 below)

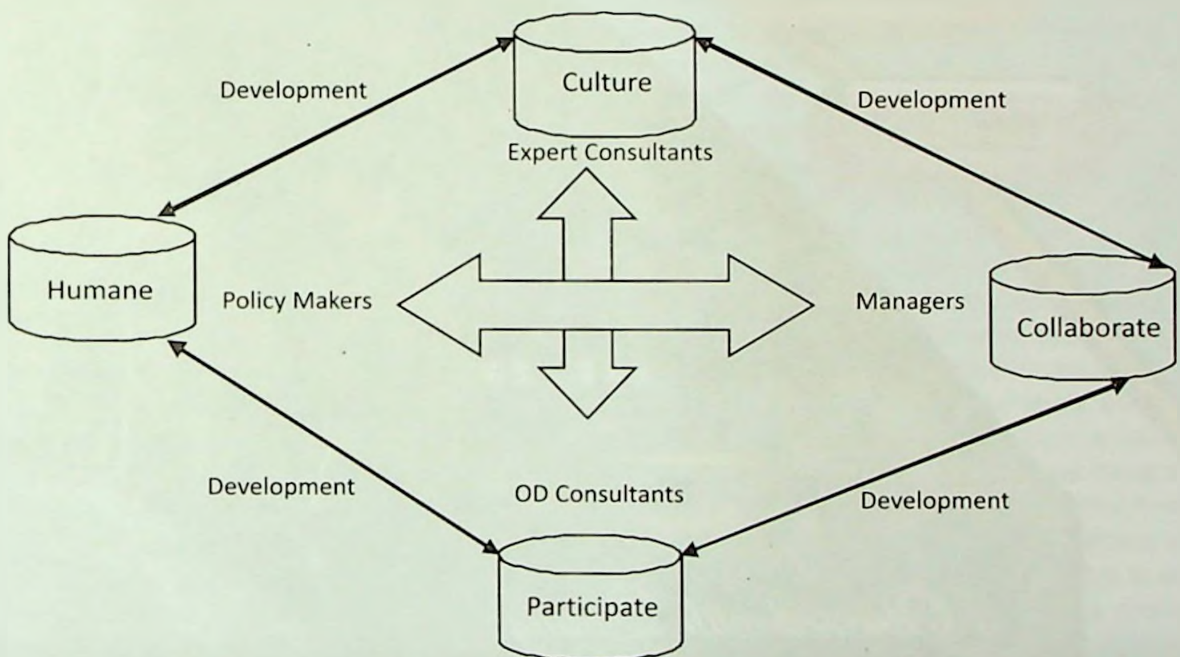
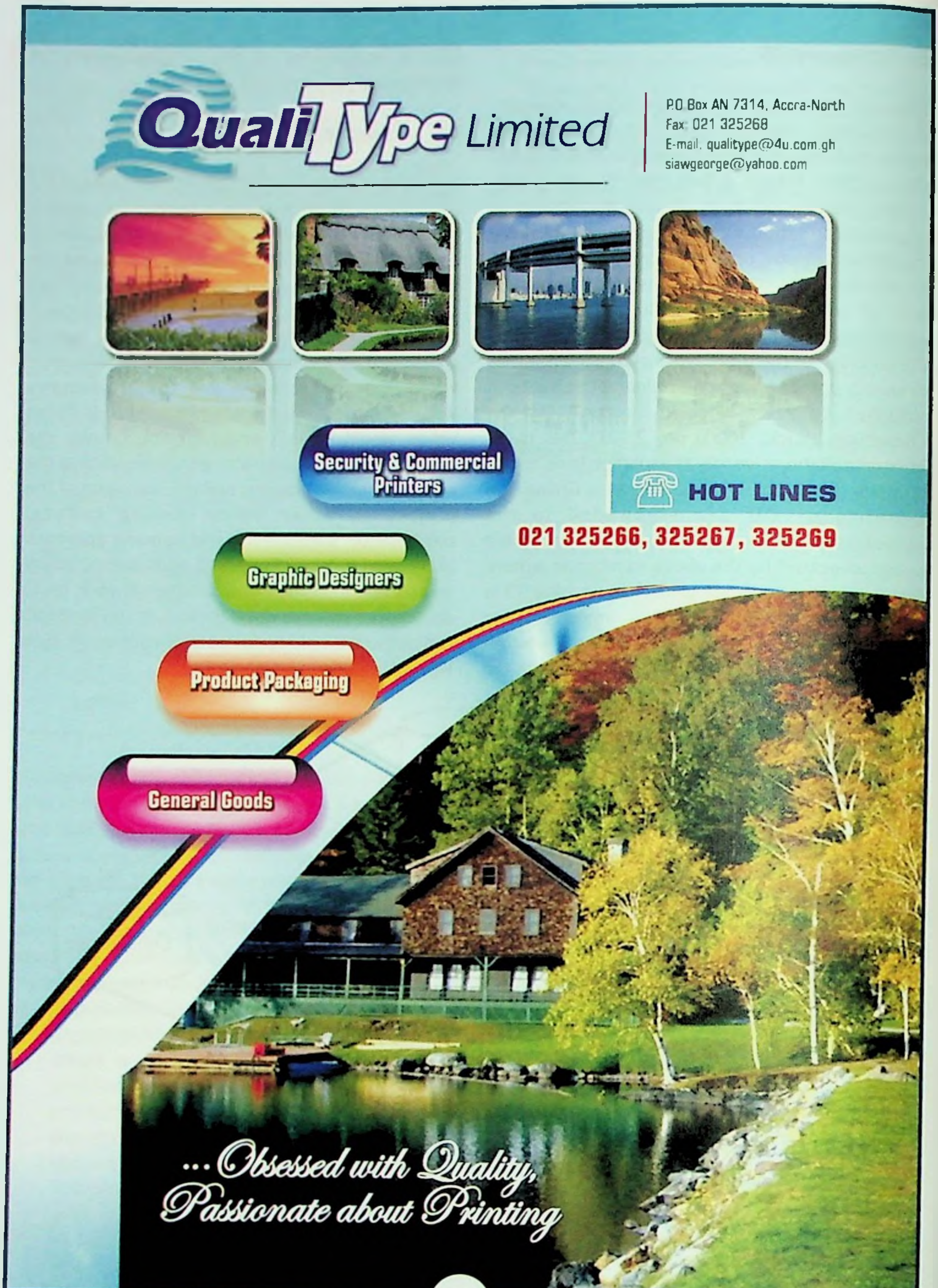


Figure 1: The stakeholders- values network model to produce sustainable development. Source: Research notes.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3.0 STUDY APPROACH

The potency of a research approach in a particular study context could be determined by the relevance of the approach to the research objectives and questions. The main purpose of this study was to assess the benefits and challenges of OD as consultancy practice and create the needed awareness to enable consultants, policy makers and managers encourage its use in development programmes. It was mainly a qualitative study. Given the exploratory nature of the study, it was not meant to measure or test any theory; the positivist deductive approach was, therefore, not relevant here. Rather, the study involved the examination of "complexity, context and persona and their multitude of factors relationship and fuzzy phenomena, which conventional statistics may not be able to handle," (Gummerson, 2006). Thus, the personal involvement of the researcher in interpreting meanings was more relevant than passive involvement as required by positivist approach. However, when analysing the data, use was made of some inferential statistics to drive home some points. This confirms that research methodologies, either qualitative or quantitative could depend on one another.

3.1 Sample

The study was interested in the rich stories Eisenhardt (1989) of respondents' perceptions of what OD consultancy could offer to development programmes, given its values and challenges in the Ghanaian context. Identifying the 35 cases was the challenging aspect of the study. This was because the sample required could not be collected at one point. The study, therefore, used two main clusters as the basis for selecting sample cases. The first cluster of the sample was 19 persons who have never had any experience of OD consultancy, but were aware of OD as a consultancy method. Another 16 respondents, who had various levels of OD consultancy experience, were selected. The samples from these two clusters were selected through the snowball approach of data collection. Respondents directed the researcher to prospective respondents as defined by the study.

3.2 Data Collection

The main data collection instrument was a three-page semi-structured interview protocol that collected data through face-to-face, and telephone interviews. The interview protocol specifically solicited perceptions of respondents on the following:

a) Impact of consultancy method on development programmes.
b) Benefits of OD consultancy to development programmes.
c) Challenges of OD consultancy and how they could be overcome.

In the case of some of the respondents, who had experience of OD consultancy, they were given the interview protocols to answer the questions. In some cases, respondents offered vary helpful insights which had not been solicited for in the interview protocol.

To ensure the reliability of data collected, investigator triangulation was adopted (Mangan et al. 2004. p.569) Further, two different groups were interviewed, those exposed to OD and those who had little or no involvement in OD. This helped in producing very objective results, which could be likened to the use of controlled subjects and uncontrolled subjects in a quantitative research approach. Construct validity was achieved by ensuring that the respondents understood what was being measured so their answers were not out of the way. That notwithstanding construct validity is difficult to achieve in a case study, since it is vulnerable to subjectivity in data collection. Responses which could not address the issues were not used, and persons who were approached and did not seem to have interest in the study were replaced with others. Since the study was not to measure any causal effect, as in pure quantitative study, internal validity was not an issue. Being a case study, it was not meant to generalise the findings. However, given the number of individuals which formed the unit of analysis, it was possible to expect analytic generalisation: 'This is when a previously developed theory is used as a template to compare the empirical results of the case study' (Yin 2008 p. 38)

3.3 Data Analysis

The data collected was coded according to a pre-coded legend to enable the findings to be grouped into the appropriate categories. The questionnaire provided space for a few questions that solicited quantitative information on respondents and in some cases, their perceptions. For example, the question on the level of impact of consultancy method used a 5 point Likert-like scale to collect the data. Respondents were asked to rank the extent to which the methods used by consultants affect development programmes(Where 1 was less critical and 5 was extremely critical) However, this was an exception for the purpose of measuring the impact but it provided insightful support to the narrations given by the respondents. By using the Statistical Package for Social Science, the data was analysed into categories, which enabled accurate interpretation of the findings. In a few cases from adequate tabulation, statistical inferences were deduced. However, the study was mainly a qualitative study. From the codes, very relevant quotations, which represented the majority perception on an issue were presented. This is because qualitative research does not just represent only frequencies and percentages of the findings but the intended meanings that produced the percentages.

3.4 Limitations

Despite the assurance of trustworthiness, credibility and data dependability built into the research approach, there were a few limitations that need to be taken into consideration when interpreting the findings and implications.

The first limitation was that, employers of OD consultants were not isolated to assess their response to the benefits of OD in their organisations. This could have given another perspective of the benefits of OD.

Secondly, the small number of OD consultants in Ghana made it difficult to select a large sample within the period of the study. A large sample could have given more informed aspects of the practice of OD in Ghana.

Thirdly, the study could not find very specific empirical study in this nascent area of research.

FINDINGS AND DISCUSSION

4.1 Background Information on Respondents

A total of 35 responses were recorded and coded. The background information about the respondents included their sex, age, type of organisation they are working with, and their positions in the organisations. In terms of sex, 88.6 percent were males and 8.6 percent were females with one respondent not indicating his/her sex. On the question of age, the responses show that majority of them (about 63 percent) were between the ages of 35 and 54, while 22.9 percent were aged between 25 and 34 years and 5.7 percent were aged 55 years and above. Three respondents (8.6 percent) did not indicate their age. About the type of organisation, 71.4 percent of the respondents were from public sector organisations, while 8.6 percent were from private sector organisations and 17.1 percent were from Non-Governmental Organisations (NGOs). One respondent did not respond to this question. The distribution is as shown in Table 1.

The positions of the respondents in their respective organisations ranged from Chief Executive Officer (1), Director (3), Deputy Director (3), Coordinator (2), Head of Department (3), Chief Director (1) and Monitoring and Evaluation Officer (1). Others include Operations Officer (1), Systems Analyst (1) and Training Officer (1). The rest were in other managerial/senior positions.

In terms of the selection of respondents for this study, no deliberate attempt was made to use the sex, age or organisation as a criterion. Rather, the choice of respondents was informed by their position, knowledge and influence as far as consultancy issues in the context of development programmes were concerned. They were located through peer referencing. Respondents from the public sector were in the majority, apparently because most development programmes have been managed by the public sector. The specific findings were:

a) Majority of the respondents(71 percent, who were mostly experienced) confirmed that methods of consultancy are very important to the delivery of developments programme

Table 1: Distribution of Background Information of Respondents

Characteristic	Frequency	Percent
Sex		
Male	31	88.6
Female	3	8.6
Non response	1	2.8
Total	35	100.0
Age		
25-34	8	22.9
35-44	12	34.3
45-54	10	28.6
55+	2	5.7
Non response	3	8.6
Total	35	100.0
Organisation		
Public	25	71.4
Private	3	8.6
NGO	6	17.1
Non-response	1	2.9
Total	35	100.0

b) All the respondents agreed that OD consultancy would provide benefits. But the relevance of the benefits to OD consultancy they mentioned depended on their level of experience with OD

c) All respondents accepted the existence of barriers to OD practice in development programmes, including, corruption, nature of OD practice, resistance from top management. They, however, felt this could be overcome through awareness creation, collaboration and education to be initiated by OD consultants.

4.2 Majority of respondents (71 per cent) confirmed methods of consultancy are very important to the delivery of development programmes

It was confirmed that methods of consultancy are very important to the delivery of development programmes. Only 5.7 percent of respondents rated the impact of consultancy methods on development programmes as being less critical. Eight respondents (22.9 percent) rated the impact of consultancy on the performance of development programmes as fairly critical, 28.6 percent rated it as critical and 31.4 percent of them rated it as very critical. Another 5.7 percent rated it as extremely critical. Overall, 71.4 percent rated how consultancy methods affect performance of development programmes as critical, very critical or extremely critical (see Table 2).

Table 2: Rankings of how the methods used by Consultants affect the Performance of Development Programmes

Responses	Frequency	Percent
Less critical	2	5.7
Fairly critical	8	22.9
Critical	10	28.6
Very critical	11	31.4
Extremely critical	2	5.7
Non response	2	5.7
Total	35	100.0

The responses on how methods used by consultants affect the performance of development programmes were cross tabulated with the duration for which respondents have been dealing with consultants. The results show that the two respondents who ranked the impact of consultancy method on development programmes as less critical have both dealt with consultants for only up to three years. All the respondents who have been dealing with consultants for 10 or more years ranked the impact of the contribution of consultants to development programmes as very critical or extremely critical. In this circumstance, critical means influence on development programmes was substantial. The level of association between the two variables was, however, not significant (chi-square =12.09, p = 0.438). The distribution of the responses is as shown in Table 3.

Table 3: Rankings of the impact of consultancy methods on development programmes and duration of dealing with consultants

Rankings	Duration of dealing with consultants (years)				Total
	0-3	4.7	8-10	10+	
Less critical	2	0	0	0	2
Fairly critical	4	3	1	0	8
Critical	4	2	3	0	9
Very critical	3	3	1	2	9
Extremely critical	1	0	0	1	2
Total	14	8	5	3	30

Considering that 71 per cent of respondents who come from various backgrounds ranked the impact of consultancy methods as critical, it is obvious that the development programmes cannot just be implemented without the help of consultants. Further, it becomes clear from the findings that those who ranked the impact as critical, have been in consultancy or associated with consultancy for some time. Their experience and knowledge inform their ranking. Could this mean that some of these experienced consultants have been in the system since the advent of OD consultancy in the 1980s? From table 3 it could be gleaned that at least 8 of these have worked for between 8 years and above in the consultancy field, which has given them such a strong perception of the impact of consultancy methods. If they were aware of this important fact, then they must have seen the loopholes in other consultancy methods. On the other hand, a valid argument could be that once the consultants or associates of consultants understand their trade, they are able to tell the impact of the consultancy methods. It therefore, informs this study that, with time, all consultants or their associates would see the impact as very critical. The argument was further confirmed by the body language of the experienced consultants and the way they sounded. In most cases their voices were very assuring. They sounded like this: 'oh yes, consultancy methods have very important impact on development programmes....' As to why they had that strong conviction about the role of consultancy in the implementation of development programmes, this depended mainly on their involvement. Their own involvement in development programmes could have exposed them to challenges development programmes encounter at every stage. It was, therefore, not strange that the majority had a strong opinion about the impact question. This goes to confirm again that once an issue is considered to be of critical impact; absence of its role could affect effectiveness. Respondents appeared to know more about various consultancy methods, hence they would be able to determine which method may have critical impact.

4.3 All the respondents agreed that OD consultancy provides benefits. But the relevance of the benefits to OD consultancy they mentioned depended on their level of experience with OD consultancy.

Following the above analysis, it was confirmed that respondents who have not had much dealings with OD practice (n=10) could not clearly spell out the benefits of OD to development programmes as compared to other known methods of consultancy. The responses they gave in connection with the benefits of OD consultancy were rather general benefits that can be derived from 'expert' consultancy as well. These included:

- facilitation of greater understanding of problems;
- increased productivity;
- reduced conflicts;
- enhanced output;
- successful completion of projects.

  Those who were familiar with OD practice (n=6), but not necessarily OD practitioners admitted the under mentioned benefits of OD:
- encouragement of mutual respect through collaboration;
- exposure of the private sector to human resource development;
- solutions are custom-made;
- positive impact on the bottom-line employees;
- OD will lead to new way of doing things;
- encourages ownership in implementation;
- prepares organisations to manage the future;
- develops organisational, team and individual capabilities.
- develops operational and process capability.

However, those who have been involved in od(n=16) confirmed that their od training(mainly from ocic-ucc partnership programme) has had a positive impact on their attitudes towards problem solving and diagnosis within their organisations, which will enable them to better handle future challenges without recourse to consultants. Specifically, they gave the following as benefits of OD:

- client focused, enhances delivery and aims at achieving targets;
- enhances team effectiveness and effective monitoring and control;
- keeps the public sector focused;
- builds capacity of staff;
- enables organisations solve their problems by self diagnosing and self reflecting;
- encourages collaboration;
- brings a positive change in the work ethic in the public sector;
- focuses organisations one their visions;
- improves interpersonal relationship;
- helps organisations to learn.

Box 1 captures some interesting comments made by respondents

BOX I

The OD consultancy skills training has helped me to be tolerant to divergent views and enhanced my awareness of continuous self assessment. I have also become more aware of relationship with clients, especially the entry phase.(Expert consultant who later trained as OD consultant*)*

It has impacted a lot on my value system, allowing me to change some of my attitudes such as, listening, honesty and transparency. (OD consultancy skills trainee)

The above benefits were made clear by both OD practitioners and non-OD practitioners, apparently because the values of OD are easy to understand. They evoke a humanistic approach to consultancy, which is not consciously promoted in the "expert" consultancy approach. Stakeholders definitely agree with a method of consultancy that will facilitate them to achieve their objectives in a supportive manner. (Burke, 1994, p. 179; French & Bell, 1995, p. 33; Schein, 1998. p. 1; Grieves, 2000, p396).

The findings confirm the unanimous conviction of the respondents of the obvious benefits of OD consultancy methods to development programmes. But a careful analysis of the way the benefits were presented depended on the respondent's level of understanding of OD values. Table 4 presents the various categories. Those who had little dealing with OD(mostly less experienced people in the consultancy business) formed 31 per cent of the respondents. The benefits they gave reflected values which are common to 'expert consultancy.' They were rather general than specific to OD values. The second category was those who are experienced consultants with full knowledge of OD but do not practice OD. They formed 19 per cent of the respondents. They provide much detailed information as to how OD could be helpful. The last category is the OD practitioners. Because of their knowledge and experience in OD, the benefits they gave were very specific and insightful to this study. They formed 50 per cent of the respondents. This categorisation of the analysis brings rather insightful meaning to the study because it immediately informs policy makers about how the exposure of OD to a group of people will influence their thinking. This, probably, might have informed the general disregard for OD value because of lack of information of OD.

Table 4: Level of respondents' dealings with OD

Category of conultants	Frequency	Percent
Little dealing with OD	10	31
Aware of OD but no practice	6	19
OD practitioners	16	50
Total	32	100

However, the finding as regards to how OD could benefit development appears to have more prospects when it comes to awareness creation. It goes to confirm that once awareness is created among the remaining 31 per cent who have little knowledge of OD then they, as well, would be more specific in their understanding of the benefits of OD consultancy practice. It gives assurance of how the benefits could easily be projected with the aim of ensuring that all other consultants appreciate its use. Given that OD has been practiced for over 20 years in Ghana (Kumawu, 2006) evokes two issues: a) It seems to have been forgotten easily to the extent that its involvement in consultancy practice is very small, b) Notwithstanding the values expressed by all respondents, most of the proponents of OD, who were trained outside Ghana were not able leave a solid mark for continuity of OD practice. Further, one may want to know how successful the OD consultants were in their practice?

The above analysis rather suggests that benefit is relative, according to a person's understanding of the phenomenon. The finding seems to confirm this. It goes without saying that, the more one experiences the results of a consultancy practice, the more one feels its benefits. Could this be better done by OD practice or awareness creation. Probably the two have to be done together for the benefit to be understood. The findings further imply that the OD agenda appears not well presented by the OD practitioners. Once this is known then the OD practitioners need to make the OD agenda very clear by using the very methods of OD to collaborate with their 'expert' colleagues for effective delivery of development programmes.

All respondents accepted the existence of barriers to OD practice in development programmes, including, corruption, nature of OD practice, resistance by top management. They, however, felt this could be overcome through awareness creation, collaboration and education to be initiated by OD consultants.

4.4 All respondents felt the barriers to OD practice include lack of transparency, corruption and managers interest in the traditional expert consultancy. They however, suggested education, collaboration and awareness creation as the solution

Having identified the benefits arising out of the values OD practice holds for delivery of development programmes in Ghana, respondents were asked about the implementation difficulties that could pose challenges to the practice of OD in Ghana, with regard to development programmes. The respondents mentioned several of these challenges. These responses included:

- executive preference and expert advice;
- time consuming nature of OD consultancy;
- lack of data;
- unwillingness of top executive to divulge certain vital information to OD consultants;
- lack of cooperation;
- corruption;
- poor organisational culture and generally poor resistance to change;
- tendency to force recommendations;
- resistance of OD consultancy by "expert" consultants;
- lack of adequate political will to cooperate with OD consultants
- lack of adequate expertise on the part of some "OD consultants"

Of these factors, the poor organisational culture, lack of adequate political will and the time consuming nature of OD consultancy came up clearly as the most potential implementation difficulties that will face the practice of OD in Ghana.

The aspect of OD, which respondents felt will be most challenged in Ghana is the lack of data and lack of honesty on the part of those in authority to cooperate fully with the OD Consultants. Others also thought OD consultancy, being a form of action research, would be hampered by authenticity and openness in the dealings between top executives and the OD Consultants. This is because these values are at variance with the work culture.

The responses given on how the problems or challenges can be overcome included the need to promote the option of OD Consultancy in Ghana, and to educate top executives of organisations on the benefits they stand to derive from the utilization of OD Consultancy.

Further to the above findings, some respondents who are familiar with OD but are not necessarily OD practitioners had some thoughts as captured in box 2.

BOX 2:
Quotes from experienced expert consultants

> *"OD practice is new in Ghana. Practitioners should examine patiently, the following elements: structure, process, and the situational climate, using the "rich picture" approach"* (Accounting and Management Consultant with over 30 years experience)
>
> *" Extent to which people are involved should be very well worked out . Do not give too much when they are not ready*(Health planning Consultant with over 20 years experience)

These pieces of advice could be issues for thought for OD consultancy practice in Ghana. These experienced expert consultants have mostly been involved in the delivery of development programmes in Ghana and understand the terrain. Collaboration with this group of consultants could be a good learning experience for OD practice in Ghana.

The study also sought to find out the extent to which the respondents assessed the involvement of OD consultants in the delivery of development programmes and the responses obtained show that close to half of the respondents (48.6 percent) ranked OD consultants as having little involvement in the delivery of development programmes. This number comprised 10 who do not know about OD Consultancy and 7 who are aware of OD Consultancy.

An additional 2 respondents ranked the involvement of OD Consultants in the delivery of development programmes as fair, while six respondents ranked the involvement of OD consultants in the delivery of development programmes as high (see Table 5)

Table 5: Responses on the Extent of OD Consultants' Involvement in the Delivery of Development Programmes and Familiarity with OD Consultancy

Involvement of OD Consultants in development programmes	Are you familiar with OD?		Total
	Yes	No	
Little	7	10	17
Fair	2	0	2
Average	5	0	5
High	4	2	6
Very High	2	1	3
Total	20	13	33

Arising from the findings in table 5, the involvement of OD consultants in the delivery of development programmes is below average; it therefore confirms that the values of OD practice are yet to be experienced in the delivery of development programmes in Ghana. The impact of OD, as an alternative to consultancy methods is not well understood in Ghana. 'Organisation Development is still not a highly understood and appreciated concept in most African countries...' (Kumawu & Kraus 2007). This fact is known to both stakeholders who are familiar with OD methods/approach and those who are not familiar with OD methods/approach to consultancy.

The findings informed the study of the extent of challenges OD encounters in development programmes in Ghana. Every new methodology starts as an alien concept to the recipients. The fact that OD is relatively new in Ghana could pose a major challenge. People may be entrenched in their traditional way of doing things. As expressed by some of the respondents, managers and policy makers may have worked so long with the 'expert consultants'; that they therefore find it difficult to embrace a new methodology-OD practice. This could be especially so when OD consultancy emphasises transparency, honesty, collaboration and normative re-education, which could be easy to propagate but very difficult to implement. This is because perception of corruption about public officials is high in Ghana; and this perception is at variance with the values of OD. There is, therefore, a high probability that the little involvement of OD in development programmes is coloured by the very work culture of the stakeholders in development programmes. The agenda of OD for development programmes, therefore, becomes very difficult to be listened to, let alone be implemented,

The response on the implementation challenges clearly brings out some of the cultural orientation mentioned in the literature, which is embedded in the society. Oteng-Gyasi, (2007); Kumawu & Kraus (2007); Sarpong (2007) provide very recent examples of challenges in the culture that could pose a problem to OD. Further, Schein's (1998, pp. 7-17) description of known consultancy models as, *purchase of information* and *the doctor-patient* as against the collaborative model appears to have been recognised by the respondents. The very social structure that development programmes seek to help is perceived to be corrupt. This definitely will be at variance with OD values of transparency, authenticity and democracy which aid genuine collaboration. Since respondents were worried about action research as a collaborative approach with its focus on openness and authenticity, it becomes clear that the human aspect that is needed for the success of OD practice is greatly challenged.

The key to this challenge remains the work of the OD practitioner, to use himself/herself as an instrument of change in a helping relationship to make the benefits of OD known. The core values of OD, therefore, come to play again in this situation (Yaeger, 2002)

At this point, it is important to restate the three specific objectives of the study:

a) To determine the impact of consultancy methods on development programmes.
b) To find out how OD values could benefit development programmes.
c) To determine the implementation challenges of OD practice and how they could be addressed.

The findings and the related discussion bring out a key link which cuts across the three specific objectives of the study: the level of awareness of OD methodology. The finding that respondents were aware of the important impact of consultancy methods on development programmes, but the depth of their assessment depended on how long they have been associated with OD as well as how experienced they were was very clear. This same phenomenon was noticed in the respondents understanding of the benefits OD could offer to development programmes. Here again their level of knowledge and experience determined the type of benefits they associated with OD. The less experienced respondents gave rather general benefits. The experienced respondents gave benefits which were very relevant to OD practice but unlike the OD practitioners, they were not very specific. The same responses related to challenges and how to deal with them. Here, the experienced respondents called for care in introducing OD to development programmes This goes to confirm that the more effort made to get non-OD practitioners to understand what OD stands for, the better it would be appreciated. What is needed here is incremental knowledge of the values of OD to stakeholders, which could better be pioneered by OD practitioners. This finding agrees with Boyd (2008) who asserts that 'if the top-executive team is to take direct leadership responsibilities for change efforts, they will need educational and functional experience in change management to achieve success.'(p.21). This assertion informs the contribution of this study to the literature as stated below.

The contribution of this study to the literature is that, OD values could help make development programmes in Ghana more effective. But for OD to achieve its rightful role in development programmes, practitioners do not just have to create awareness but find the various categories of stakeholders in the implementation of development programmes and provide custom-made incremental knowledge of OD values. This could be achieved by making OD education part of the process of the development programmes. The OD agenda to development programmes could then be made clear to all stakeholders.

5.0 CONCLUSIONS AND IMPLICATIONS

5.1 Need to create awareness to ensure very effective impact of OD on development programmes.

The findings and discussion confirm that the impact of consultancy methodology on development programmes is critical, This perception is shared by all respondents but the differences as to the how critical consultancy methodology impacts development programmes depends on the experience of respondents with consultancy. It could, therefore, be concluded that once people get to understand a particular methodology, they would surely be able to appreciate its values and adopt it. Regarding what is on the OD agenda, in terms of values that could improve development programmes, awareness creation need to be increased.

The implications for OD consultants are that they have to use themselves as instruments of change. Their collaboration with 'expert' consultants, as is common in development programmes in Ghana is not to see themselves as a special breed of consultants that possess higher consultancy skills, but to share their skills with 'expert' consultants as a means of creating awareness of the OD agenda for effective development.

Policy makers should allocate consultancy method with the view of allowing 'expert' consultants and OD consultants to blend towards effective. Requests for expression of interest in consultancy contracts should be designed in a manner that would encourage proposals to respect the worth of each consultant as a way of achieving the needed impact. In this way, what is in OD and the OD methods of consultancy would come out for effective impact. Managers of development programmes should also monitor the programmes with an eye for effective impact. The monitoring standards should make this very clear to consultants from the onset of the programmes.

5.2 Benefits of the values of OD should be fully exploited

The study's findings show that all respondents were of the view that OD has values that need to be exploited. If people who have less knowledge about OD appear to believe that OD has benefits then these benefits must be fully exploited. The exploitation by the stakeholders could lead to effective development programmes in Ghana. According to the level of understanding of the benefits of OD and how they could improve development programmes, OD consultants seem to be leading. It is, therefore, important that OD consultants make conscious efforts in their practice to model the values of OD so that the cultural challenges do not reduce their efforts. This can only be achieved by deliberate collaboration by OD consultants in their practice. This collaboration should be extended to policy makers, managers and expert consultants of development programmes.

The knowledge base of OD need to be increased through further training that would cover other stakeholders, according to their level of understanding of OD. It should not be a generic approach for all. This is where partnerships such as OCIC-University of Cape Coast OD Consulting skills training programmes are very important. This is the only accredited OD programme that offers post-graduate diplomas, masters and doctoral qualifications in OD in Ghana. There are other quality OD training being offered by Ibis, the OD Centre and a few others. Policy makers may want to build the capacity of such programmes. Managers may have to recommend such programmes to their coordinators of development programmes. The contact with such institutions by policy makers and other stakeholders could expand the awareness creation in a very short time. This is because knowledge of OD benefits is rather very low.

5.3 Overcoming Implementation Challenges

It has been established that the very mindset of the Ghanaian society makes it difficult for OD practice to benefit development programmes. Lack of transparency, corruption, and nepotism are just a few of the challenges to OD practice. Various governments have attempted to eradicate such challenges, which they at times call vices. It is rather unfortunate that even people in high places have at one time or the other been convicted on account of their involvement in such unhealthy practices, but these vices continue to be practiced. This confirms that making rules alone would not end these practices. It calls for continuous education. It calls for change of attitudes that are acquired through normative re-education of the stakeholders in development programmes.

There should be a planned effort by policy makers to deliberately unleash distinguishing characteristics of OD on development programmes implementation. Stakeholders need to understand that, apart from the substantive issues of development programmes, the following values should be considered if the objectives of the development programmes could be achieved:

- Culture and processes are important
- Collaboration among OD consultants, expert consultants, policy makers and managers
- Teams at various levels are very important
- Social and the human factor matters
- Participation and involvement in problem solving
- Total system approach
- OD practitioners as facilitators, collaborators, co-learners with the client
- Enabling the client system to solve its own problems
- Reliance on action research
- Seeking the betterment of both the organisation and the individuals(French and Bell 1995 p.33)

The above list appears rather a tall order to pass on to stakeholders but this is what it takes for the average individual to see their worth in implementing development programmes. If policy makers had considered these values, there would not have been so many markets built for communities in Ghana that the beneficiaries refused to use. This is a common evidence of development programme that lacked collaboration.

Although current development may require some additions to the above, for example speed and the influence of technology in contemporary society, the values of OD, which constitute the agenda of OD to development programmes remain a potent force for delivery of effective development programmes in Ghana. This study makes a contribution as a solution to this phenomenon.

The contribution of this study to the literature is that, OD values could help make development programmes in Ghana more effective. But for OD to achieve its rightful role in development programmes, practitioners must not just create awareness but find the various categories of stakeholders in the implementation of development programmes and provide custom-made incremental knowledge of OD values. This could be achieved by making OD education part of the process of the development programmes.

Implications for further research arising out of this study could be finding out the impact of OD on a specific development programme in recent times. Further, a study may explore the perceptions of employers of how OD practitioners have imbibed the values of OD in effecting effectiveness in development programmes.

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SEGMENTING NETWORKS FOR BETTER SECURITY, MANAGEABILITY AND SCALABILITY: THE CASE OF PENTECOST UNIVERSITY COLLEGE

| *Paul Danquah* |

Abstract

Fundamental to the Network Administrator's consideration of risk on a network are issues of security namely; confidentiality, integrity and availability of information assets. The ability to effectively and efficiently manage the network and make room for growth without degradation in network performance are equally considerable concerns.

The segmentation of a significantly large Local Area Network with a possible annual growth rate of over 10% is undoubtedly the surest way to effectively manage the network, ensure security of information assets and make it scalable.

This paper seeks to assess the Pentecost University College(PUC) campus network at Sowutuom to determine how optimally segmented it is and the most practical option of using Virtual LANs to optimize the segmentation for effective and efficient security, management and scalability.

Based on the information gathered and analysis carried out on the network, a proposal is advanced to enhance the segmentation of the campus network with an eye towards the future growth.

1. Introduction

The use of networks to share information resources has become part and parcel of the corporate agenda of modern universities.

The continual increase in number of students and staff in PUC has lead to the increase in dependants on systems. The extension of university campus networks for usage by students and staff leads to a possible exposure of classified information such as the confidential, secret, and possibly top secret information about the university.

There is also the danger of exposing sensitive but unclassified information such as Technical Information, Budget Information, Financial/Payroll Information, Contract information to mention a few.

The staff population averages 130 while the annual student population averages 1700; there are about 170 user workstations on the PUC Local Area Network with 5 servers.

The exposure of information is possible once there is no segmentation of the PUC network. Possible vulnerabilities include students accessing staff computersfrom across the unsegmented network.
Segmenting means that available bandwidth is used more efficiently because there is less traffic both within and between segments of a network.(Sportack, p.156)

Manageability of the network is always a challenge when there is no segmentation regardless of software available to monitor and maintain computer systems. These management software can be divided into hardware monitoring and software monitoring solutions. Solutions that monitor the computer hardware, like temperature and power variations, are hardware monitoring systems whereas software that manages software driven services are referred to as software monitoring systems. Emphasis on manageability however has to do more with using manageable switches.

The challenge of scalability refers to how well a hardware or software system can adapt to increased demand. A scalable network system would be one that could start with just a few nodes but can easily expand to thousands of nodes. Scalability is an extremely important feature because it implies investment can be made in a system with confidence without outgrowing it.

The desire, however, to stay ahead of the competition while minimizing cost by leveraging technology means the assessment of risk in terms of vulnerabilities and threats to PUC's information assets is driven by pressure to achieve results.

It is uncertain whether the risk of exposing information assets, the challenge of managing a non segmented network effectively and the readiness for scaling the PUC network has drawn management attention.

There is the temptation to wait till disaster strikes before necessary precautions are put in place confirming the good old saying that "necessity is the mother of inventions".

This paper in turn suggests the creation of Virtual Local Area Networks (VLANs) to solve the three major issues to be addressed namely; security, manageability and scalability.

2. CURRENT SITUATION

PUC's current Local Area Network is non-segmented which is not ideal. There are fourteen 24-port non manageable Ethernet switches on the entire PUC campus with the total number of users (workstations) on the PUC Local Area Network being 170 with 5 servers at the moment.

There are four Wireless Access Points located at various blocks in the school spanning a 50 meter radius respectively.
The servers are namely Internet Proxy running Squid on Ubuntu Linux platform, DHCP on Ms Windows 2003 Server, McAfee Antivirus running on Windows 2003 Server, FACT for Accounts and Integrated School Management System(ISMS).

The current network setup has all systems resident on a single broadcast domain in a hierarchical star-bus topology using the Ethernet (CSMA/CD) technology as the access method on the network.
Physically computers within the same building use Unshielded Twisted Pair Cat5 cables for connectivity while in between blocks is predominantly Fibre Optic cabling.

The identified critical assets are servers:- DHCP running on Microsoft Windows 2003, Ubuntu Proxy server on Linux and used Internet access, The following applications systems were also identified:- Academic Records administered with the ISMS(Integrated School Management System), FACT accounting software used by the accounts department and the McAfee Antivirus software. There are no tools for bandwidth monitoring and Networking Devices like routers and switches.

The current setup and method of access raises the following possible issues that are worth considering with regards to the need for segmentation of PUC network.

2.1 Security

As students, staff and laboratory computers reside on a single broadcast domain, all PUC staff computers are exposed for exploitation if there are any known vulnerabilities. This situation makes it possible for especially individuals' computers (laptops) used from the locations where the IT department has limited administrative control to be used when intended to scan/sniff the PUC network for any vulnerabilities and possible exploitation.

Computers under the IT department's jurisdiction being laboratory computers, lecture hall computers and office computers are restricted from having the access privileges to scan or sniff the entire PUC network for such vulnerabilities.
It is also important to mention that causing a Denial of Service attack on the network is quite easy to

achieve given the single broadcast domain setup currently in operation.

2.2 Manageability

With the present network infrastructure, there are fourteen of 24-port non manageable switches with 4 Wireless Access Points distributing three various ranges of IP addresses different from the cabled network.

The use of Ethernet switches campus wide implies that each machine plugged onto the network resides in a unique collision domain. The existence of a single broadcast domain without manageable switches makes it almost impossible to determine the exact location of equipment/switches on the network.

The non-availability of manageable switches on the network makes the change management of switches a challenge. This in turn poses further difficulty to troubleshooting of situations where individual workstations flood the network.

2.3 Scalability

Considering the need for expansion of the network to meet future needs, it is imperative that this expansion is done in an orderly manner to ensure the continual availability of services that are required over the network.

Change and growth in any environment can introduce loopholes, overlaps, missing objects and oversights that can lead to new vulnerabilities.

Currently, systems are added to the network as and when needed with general expansions also carried out in a similar manner without the necessary thorough documentation and planning as required.

3. OBJECTIVES OF THE STUDY

The objectives of this study is to determine and clearly outline the measures that need to be taken to ensure the PUC network and IT infrastructure are effectively managed, secure and setup to make room for growth and expansion.
This in effect ensures namely;

3.1. The understanding of performance trends and expectations for the systems from network through applications.

3.2. Better troubleshooting by quickly identifying probes, diagnosis and fixing before end user notices thereby increasing reliability and availability. This enables users accomplish work more effectively and maximize productivity.

3.3. To ensure that security of the system is not compromised by ensuring confidentiality and integrity of information with an efficient and effective audit and accounting system.

3.4. Enough room is made for future growth with continual improvement in services and reduction of bottlenecks, effective tuning and optimization of systems to improve Quality of service and balance workloads.

3.5. To provide a cost effective phased approach to implementing the solution.

4. LITERATURE SURVEY

Typically, network traffic is concentrated between certain specific groups of users or workgroups. While traffic is heavier within workgroups, there is less traffic between workgroups.

If all the workgroups are put on the same network then the available bandwidth is reduced due to the total traffic.

Therefore, it is a common practice to segment LANs so that traffic within a workgroup is contained within its segment and only traffic bound for other segments/workgroups is broadcast beyond the workgroup's segment.

A Switch may be used to isolate a group of computers on the network which share the same printers or files. The heavy traffic directed to those network resources remains within that segment - making traffic on the rest of the network lighter.

As indicated in Intel's white paper on Using Segmentation to Increase Network Performance (December 2004), Performance is also increased because computers are not wasting time processing unnecessary net traffic and network stability is increased because when faults occur they are limited to segments and do not affect the entire network Switches make intelligent decisions, based upon the MAC address of the source and destination, about whether or not to pass along a signal to the next segment.

Ideally, network growth is well planned and orchestrated in advance to meet the additional burdens of business growth. Too often, though, network expansion is reactive rather than proactive. Business growth just is not that predictable. This is especially true for rapid growth in small start-ups, for consolidating branch offices into a regional office, or even in the acquisition-fueled growth of a multinational corporation size is no antidote for growth pains. While information technology (IT) managers try to plan for network growth, rapid or unexpected growth can stretch IT budgets and staff to the limit. Then the overriding objective becomes, "Let us just get something up and running right now." This, in turn, may result in missing the full potential for realizing greater network performance and scalability, leaving the IT staff to face major performance enhancements in the future. Fortunately, IT managers can mitigate the burdens of rapid growth by using network segmentation. Segmentation is a quick and cost-effective method for multiplying network bandwidth, depending on the number of segments used.

Additionally, performance gained through segmentation can be further augmented by various other upgrades, including upgrading servers from Fast Ethernet (100 Mbps) to Gigabit Ethernet (GbE), replacing dumb hubs with smart switches, and adding switched redundant links for higher network reliability.

The basic function of segmentation is to split traffic loads, thus alleviating bottlenecks. This is, in essence, comparable to changing a two-lane highway into a four-lane highway. More traffic flows quicker. Add another segment more lanes and even more traffic can flow quickly.

In addition to enhancing throughput, segmentation offers network administrators other advantages, such as high security and reliability. These can be gained by careful definition of segments and judicious selection of the implementing hardware.

Juniper Networks, Inc's white paper in 2006 on Network segmentation describes VLANs as used in widely distributed computing environments, and carrier (managed services) environments as a means to identify and then segment traffic at a very granular level.

Virtual Local Area Networks

Cisco's Network Security Principles and Practices 2003 describes VLANs as a switched network that is logically segmented on an organizational basis, by functions, project teams, or applications rather than on a physical or geographical basis. For example, all workstations and servers used by a particular workgroup team can be connected to the same VLAN, regardless of their physical connections to the network or the fact that they might be intermingled with other teams. Reconfiguration of the network can be done through software rather than by physically unplugging and moving devices or wires. (p.105)

Cisco Inc's paper on VLANs further explains that VLANs can be thought of as a broadcast domain that exists within a defined set of switches. A VLAN consists of a number of end systems, either hosts or network equipment (such as bridges and routers), connected by a single bridging domain. The bridging domain is supported on various pieces of network equipment; for example, LAN switches that operate bridging protocols between them with a separate bridge group for each VLAN.

VLANs are created to provide the segmentation services traditionally provided by routers in LAN configurations. VLANs address scalability, security, and network management. Routers in VLAN topologies provide broadcast filtering, security, address summarization, and traffic flow management.

None of the switches within the defined group will bridge any frames, not even broadcast frames, between two VLANs. Several key issues need to be considered when designing and building switched LAN inter-networks.

LAN Segmentation
Security
Broadcast Control
Performance
Network Management
Communication Between VLANs

LAN Segmentation

VLAN technology enables logical networks to overlay the physical switched infrastructure such that any collection of ports on the LAN can be combined into an autonomous user group or community of interest. The technology logically segments the network into separate Layer 2 broadcast domains whereby packets are switched between ports designated to be within the same VLAN. By containing traffic originating on a particular LAN only to other LANs in the same VLAN, switched virtual networks avoid wasting bandwidth, a drawback inherent to traditional bridged and switched networks in which packets are often forwarded to LANs with no need for them. Implementation of VLANs also improves scalability, particularly in LAN environments that support broadcast- or multicast-intensive protocols and applications that flood packets throughout the network.

Security

Segmentation also improves security by isolating groups. High-security users can be grouped into a VLAN, possible on the same physical segment, and no users outside that VLAN can communicate with them.

Broadcast Control

Switches essentially isolate collision domains for attached hosts and only forward appropriate traffic out to particular ports, VLANs also provide complete isolation between VLANs. A VLAN is a bridging domain and all broadcast and multicast traffic is contained within it.

Performance

When users are logically grouped, it enables the respective groups to make intensive use of a networked system assigned to a VLAN that contains just that specific group and its servers. That group's work will not affect other users.
The VLAN configuration improves general network performance by not slowing down other users sharing the network.

Network Management

The grouping of users into various logical groups facilitates easier network management. With the advent of manageable switches, it is not necessary to pull cables to move a user from one physical network to another. The various additions, moves, and changes are achieved by configuring ports into the appropriate VLAN using manageable network switches.

Communication Between VLANs

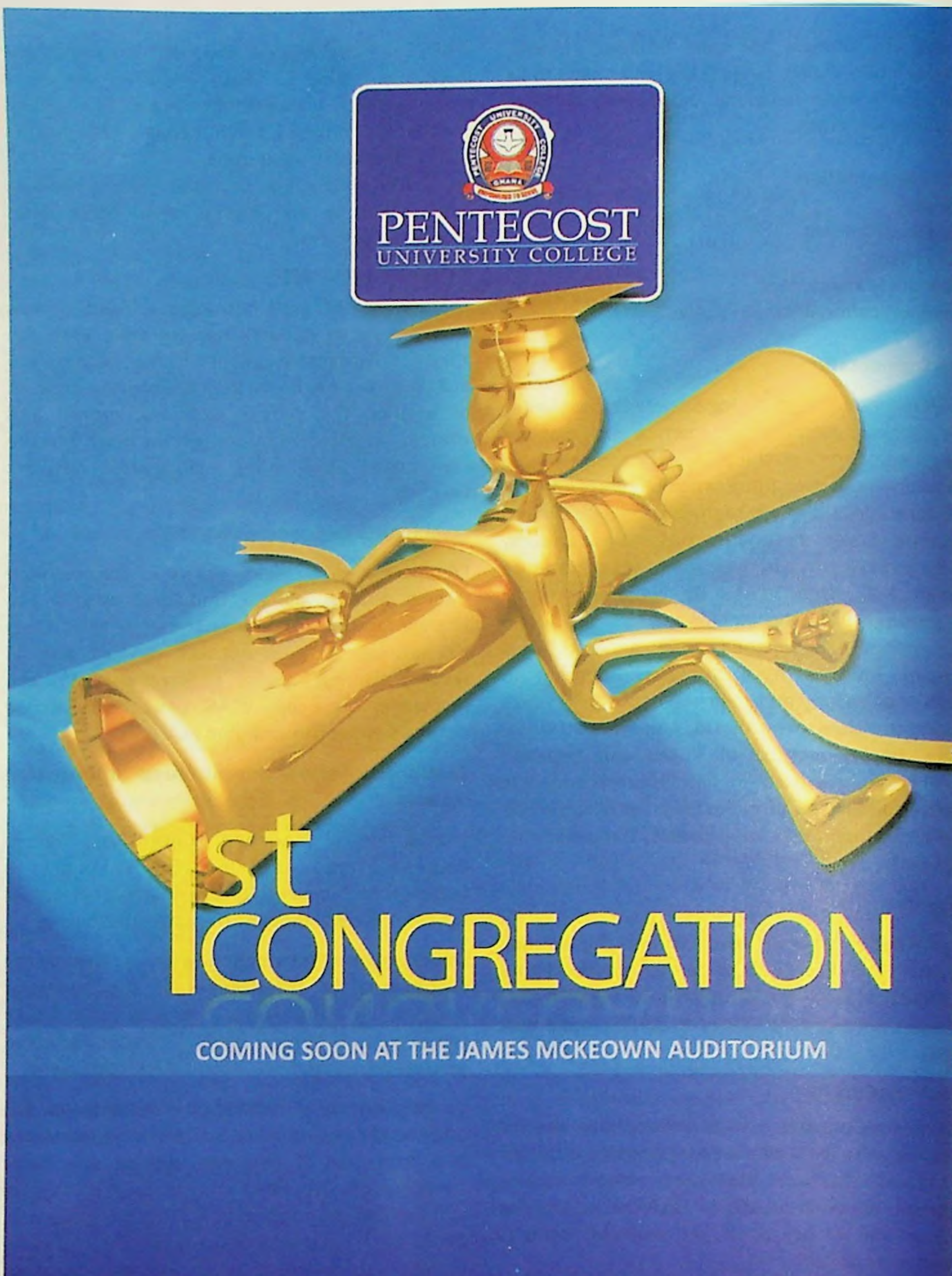
Communication between VLANs is accomplished through routing, and the traditional security and filtering functions of the router can be used. Cisco IOS software provides network services such as security filtering, quality of service (QoS), and accounting on a per VLAN basis. As switched networks evolve to distributed VLANs,

Centralized versus Decentralized Information Systems

Patrick Wall's paper on "Centralized versus Decentralized Information Systems in Organizations", coherently and vigorously discusses the two schools of thought as enumerated below.

Centralization of Information Systems refers to the allocation of all IT resources to one particular business unit that provides IT services to the whole firm (Gordon & Gordon, 2000). This typically would leverage on convenience in control and cost saving.

Decentralization of Information Systems on the other hand gives individual business units autonomy over their own IT resources without any major considerations over other units unless it is essential to the overall organization policy (Gordon & Gordon, 2000). Decentralization typically tends to be more flexible with control given to individual business units.


PENTECOST
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COMING SOON AT THE JAMES MCKEOWN AUDITORIUM

Advantages and Disadvantages of Centralized Information Systems (Kroenke & Hatch, 1994) outlines the advantages of Centralized systems as they provide centralized control using established technology and vendors, thus it involves less technical risks, duplication of effort, resources and expertise thereby saving cost and time.

On the other hand, the information systems professionals who install and operate such systems are also expensive. Due to one central system carrying out all the requested tasks, this system is obviously going to be much slower than a decentralized arrangement where each business unit has its own autonomous system for local tasks. Lastly, there is the danger of total shutdown of operations upon the failure of the centralized system.

Advantages and Disadvantages of Decentralized Information Systems: Customization for local processing is possible hence there is increased autonomy (Hodgkinson, 1996), thereby leading to better organizational flexibility and responsiveness. Startup costs are relatively low (Kroenke & Hatch, 1994). Another key advantage is that reliability is increased greatly because multiple computer systems are involved; if one computer system fails other part of it will still be able to function.

Decentralized Information Systems on the other hand leads to a duplication of resources, effort and expertise, which wastes time and causes cost to increase. Due to the lack of a centralized administration and control of decentralized systems, conflicting ideas and clashes in policy arise leading to delays and inefficiency. (Kroenke & Hatch, 1994).

5. METHODOLOGY

The main approach is to observe the current PUC setup taking into account the underlying topology, technology, components and services that run on the PUC network.

With knowledge of this, there could then be a qualitative analysis of information gathered with consideration of the effective and efficient setup of manageable, secure and scalable systems.

The analysis would involve the identification of limitations of the current setup and subsequently the proposal of solutions to the current limitations. Ultimately, there would be a proposal for accommodating future growth while ensuring continual improvement in services and reduction of bottlenecks, effective tuning and optimization of systems to improve quality of service and balance workloads.

It needs to be mentioned that given the processes and procedures binding PUC as an institution, it is relatively more feasible approaching the problem with a phased solution.

6. DATA COMPILED FOR STUDY (PUC Network Description)

6.1 Distribution of Workstations and Servers on Block basis

The Administration Block has two computer labs of 68 and 44 computers respectively with a total of 21 additional staff computers. There are two servers within the block namely the DHCP and Antivirus Servers. The Administration Annex has 20 Workstations with the Auditorium and Lecture blocks having 8 and 11 Workstations.

6.2 Switches and Access Points

The switches, access points and switch cabinets are distributed on the campus as depicted in diagram 6.5; Nine switches located in the Administration block, one in the Auditorium, two in the Lectures block and two in the Administration Annex. The four Linksys Wireless Access points are distributed as follows; one is located in the Administration block, two in the Lecture block and one in the Administration Annex.

6.3 Cabling, Technology and Addressing

All systems are resident on a single broadcast domain in a hierarchical star bus topology. Using the Ethernet(CSMA/CD) technology as the access method on the network, computers connect to each other within same blocks using Unshielded Twisted Pair Category5 cables for connectivity, while in between blocks Fibre Optic cabling is predominantly used . The Wireless network operates WiFi network to which both students and staff connect within the 2.4GHz frequency range.

The IP address range is 100.1.1.0/16 being issued out to all machines on the cabled network while the various access points issue different IP ranges namely; 192.168.1.0/24, 192.168.2.0/24 and 192.168.3.0/24

6.4 Servers

The major hardware and software servers identified are Ubuntu Proxy server on Linux and used Internet access, DHCP running on Microsoft Windows 2003, Academic Records server administered with the ISMS(Integrated School Management System), FACT accounting software used by the accounts department and the McAfee Antivirus software. There are no server tools for monitoring of Networking resources.

However, considering the cost involved in changing PUC's current non-segmented network into an optimally segmented one, it will be most prudent to go about the process in phases.

The segmentation will be done by making use of the same physical media to create independent logical networks within a physical network. Several VLANs can co-exist within such a network.

This would increase the number of broadcast domain but aid in network administration by separating logical segments of the Local Area Network; in the case of PUC the segments would be separate for students, staff (various departments) and residents. This is achieved by the configuration of VLANs through software rather than hardware however, this can only be achieved by the use of manageable switches which support the implementation of VLANs.

Given the layout of PUC's campus network as described in section 6 and shown in the attached PUC layout diagram and also the fact that the network has no single manageable switch, It is imperative that manageable switches are acquired to initiate the entire segmentation process.

In this regard, it is recommended that the project starts with the purchase of seven of 24-port manageable switches with fibre/UTP modules.

The segmentation would have unique VLANs for all computer laboratory computers, academic registry, accounts department and all other staff respectively. This configuration is based on the identified information asset of the institution.

The Wireless network can be segmented via the use of MAC addresses of staff computers to automatically distinguish lecturers from students upon connection to the wireless network. This implies the Access Points would need to have the capability to identify MAC addresses and subsequently associate it with the appropriate VLAN on the cabled network.

7.1 Phase One

The first phase will involve the installation of manageable switches at the following locations and a spare switch will be kept for emergencies.

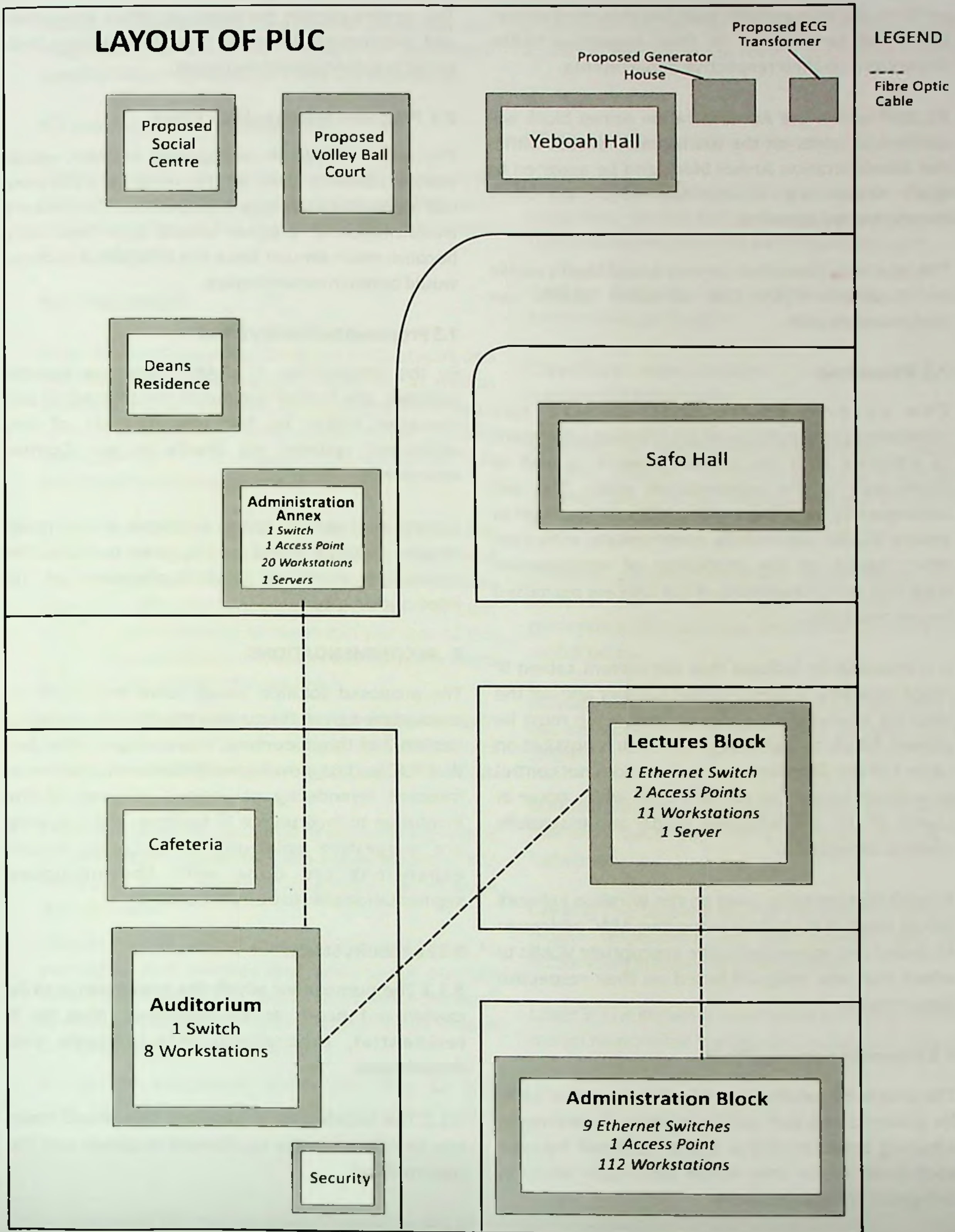
- Administration Annex
- Auditorium
- Administration
- Lectures Block

All the computer lab computers will be connected to non manageable switches and then crossed-over to a single port on the manageable port within the Administration block and assigned a unique VLAN eg-VLAN2.

All staff within the Administration block will connect to other ports on the manageable switch within the Administration block and be assigned to their respective VLANs dependent on their respective departments.

All staff within the Lectures block will connect to ports on the manageable switch within the Lectures block and be assigned to their respective VLANs dependent on their respective departments.

All staff within the Auditorium block will connect to


LAYOUT OF PUC
Proposed ECG Transformer
Proposed Generator House
LEGEND
Fibre Optic Cable
Proposed Social Centre
Proposed Volley Ball Court
Yeboah Hall
Safo Hall
Deans Residence
Administration Annex
1 Switch
1 Access Point
20 Workstations
1 Servers
Lectures Block
1 Ethernet Switch
2 Access Points
11 Workstations
1 Server
Cafeteria
Auditorium
1 Switch
8 Workstations
Administration Block
9 Ethernet Switches
1 Access Point
112 Workstations
Security

ports on the manageable switch within the Lectures block and be assigned to their respective VLANs dependent on their respective departments.

All staff within the Administration Annex block will connect to ports on the manageable switch within the Administration Annex block and be assigned to their respective VLANs dependent on their respective departments.

The Internet connection servers would ideally reside on a unique VLAN that all other VLANs can communicate with.

7.2 Phase Two

The second phase will involve the installation/configuration of the Wireless equipment to integrate with the cabled network as well as conforming to the segmentation policy. This will subsequently be refined with a VTP configuration to ensure VLANs successfully communicate with each other based on the resolution of management regarding which segments of the LAN are permitted to communicate.

It is essential to indicate that the current cabled IP range issued by the DHCP server is public and not the ideal for a private LAN; this current setup must be altered. Much as logical segmentation is possible on Layer 3 of the OSI reference model it does not control broadcasts hence the use of VLANs which occur at Layer2 of the OSI reference model and essentially controls broadcasts.

All staff laptops to be used on the Wireless network would need to have their respective MAC addresses recorded and appended to the appropriate VLANs to which they are assigned based on their respective departments.

7.3 Proposed Security Effect

The proposed solution would separate virtual LANs for students and staff with respective departments; ensuring their respective traffic does not traverse each other hence they would technically reside in different broadcast domains.

This in turn curtails the exposure office computers and information stored on them from having their possible vulnerabilities exploited.

7.4 Proposed Manageability Effect

The use of VLANs on manageable switches would enable administrators of the network determine traffic patterns and usage trends better. The network troubleshooting process would also invariably become much simpler since the location of systems would be much easier to track.

7.5 Proposed Scalability Effect

By the introduction of VLANs using manageable switches, any further expansion can be tracked and managed better by the identification of any additional systems via Media Access Control addresses.

Control over various added segments is also made simpler as there would be the need to factor the expansion purpose in the planning of its interconnectivity.

8. RECOMMENDATIONS

The proposed solution would solve the problems encountered given the current situation described in section 2 of this document. However given the fact that PUC is a fast growing institution with a culture of frequent remodeling of various sections of the institution to incorporate IT facilities, the following are suggestive solutions to ensuring future expansions are done with the proposed segmentation plan to be incorporated.

8.1 Feasibility Study:

8.1.1 The purpose for which the expansion is to be carried out needs to be identified, thus be it residential, laboratory, office usage and department.

8.1.2 The location for expansion, this would assist one to determine the equipment required and the cost involved.

8.2 Analysis and Design of Network Extension:

Based on the identified purpose of extension and magnitude, it would be possible to determine which VLANs (segments) to place the extension.

8.3 Building and Implementation:

With all the above measures provided, there could then be installation, configuration, testing and implementation of the expansion's integration into PUC's network.

9. CONCLUSION

With the ever increasing size of the PUC network and the challenge of keeping systems secure as well as making it possible for users to have access to network services at all times, there is no doubt that effective management of the network and the traffic that traverses it is the way forward.

The segmentation via VLANs would increase the number of **broadcast domains** but reduce the size of each **broadcast domain.** This in turn reduces network traffic and increases network security both of which are currently hampered in the case of the single large broadcast domain as well as make room for expansion to meet future needs.

It would also enhance control over multiple traffic types and ease the management difficulties encountered on the network by the creation of sub networks.

The most pertinent issue that needs to be addressed is the expertise to manage the segmentation of the network with careful attention to change management.

Change in any secure environment could lead to oversights and overlaps that bring about possibly new vulnerabilities and complexities hence the need to manage change to ensure changes do not lead to compromised or reduced security.

Change of equipment would no more be just plug_and_play, but one would need to thoroughly understand the current infrastructural layout and the impact of the changes made to the existing systems.

GLOSSARY

VLANs :Virtual Local Area Networks

Broadcast Domains: A local network where broadcasts on the network can be seen/received. Typical domains would be an Ethernet network.

Collision Domain: A group of machines contending for the same bandwidth.

Classified Information: Trade secrets and confidential information

Sensitive but Unclassified Information : Technical secrets, Budget, Information, Financial/Payroll Information, Contract Information and Information for Office Use only.

Ethernet switches: Ethernet Switch automatically divides the network into multiple domains contending for respective bandwidth on the various switch ports.

Manageable Switches: Configurable switches that can be monitored via monitoring software such as SNMP.

MAC Addresses: A hardware address that uniquely identifies each node of a network in IEEE 802 networks.

Layer 2: The Datalink layer of the ISO's OSI reference model responsible for flow control and error notification in network transmissions.

Layer 3: The Network layer of the ISO's OSI reference model responsible logical addressing, path selection and connectivity.

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Students Corner

THE BASICS OF CAPITAL BUDGETING

PART 1

| K. .B. Omane-Antwi |

The chief determinant of what a company will become is the investments it makes today. The generation and evaluation of creative investment proposals is far too important a task to be left to finance specialists; instead it is the ongoing responsibility of all managers throughout the organization. In well-managed companies, the process starts at a strategic level with senior management specifying the businesses in which the company will compete and determining the means of competition. Operating managers then translate these strategic goals into concrete action plans involving specific investment proposals. A key aspect of this process is the financial evaluation of investment proposals, or what is frequently called **Capital Budgeting**. The achievement of an objective requires the outlay of money today in expectation of increased future income. It is necessary to decide, first, whether the anticipated future income is large enough, given the risks, to justify the current expenditure, and second, whether the proposed investment is the most cost-effective way to achieve the objective. This paper seeks to address these core questions as well explaining the basic techniques used to evaluate cash flows.

AN INSIGHT INTO CASH FLOWS ESTIMATION-FIGURES OF MERIT

The financial evaluation of any investment opportunity can be broken down into three discrete steps:

(i) Estimate the relevant cash flows
(ii) Calculate a figure of merit for the investment
(iii) Compare the figure of merit to an acceptance criterion

A '*figure of merit*' is a number summarizing an investment's economic worth. A common figure of merit is the rate of return. Like the other figures of merit to be discussed, the rate of return translates the complicated cash inflows and outflows associated with an investment into a single number summarizing its economic worth. An '*acceptance criterion*', on the other hand, is a standard of comparison that helps the analyst determine whether an investment's figure of merit is attractive enough to warrant acceptance. It is like a fisherman who must throw back all fish shorter than 10 inches. To the fisherman, the length of the fish is the relevant figure of merit, and 10 inches is the acceptance criterion.

Although figures of merit and acceptance criteria may appear difficult on first exposure, the first step, estimating the relevant cash flows, is the most challenging in practice. Unlike the basically mechanical problems encountered in calculating figures of merit and acceptance criteria, estimating relevant cash flows is more in the nature of an art form, often requiring thorough understanding of company markets, competitive position, and long-run intentions. Difficulties range from commonplace concerns with depreciation, financing costs, and working capital investments to more arcane questions of shared resources, excess capacity, and contingent opportunities. And pervading the whole topic is the fact that many important costs and benefits cannot be measured in monetary terms, and so must be evaluated qualitatively

Table 1 Cash flows for container loading pier (GhȻ Millions)

Year	0	1	2	3	4	5	6	7	8	9	10
Cash flow	(40)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	17

Figure 1 Cash flow diagram for container loading Pier

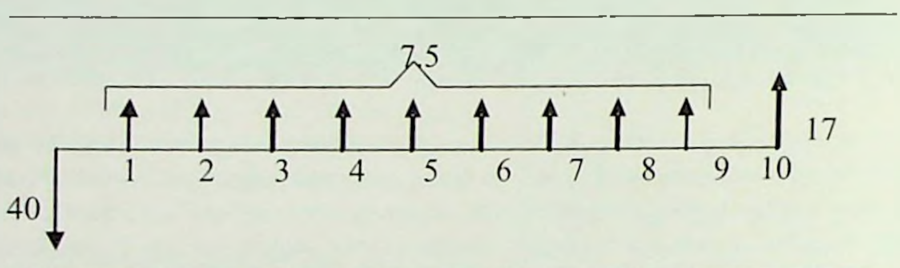


Figure 1 presents the same information in the form of a Cash Flow Diagram, which is nothing more than a graphical display of the pier's costs and benefits distributed along a time line. Despite its simplicity, I find that many common mistakes can be avoided by preparing such a diagram for even the most elementary investment opportunities. We see that the pier will cost GHȻ 40 million to construct and is expected to generate cash inflows of GHȻ 7.5million annually for 10 years. In addition, the company expects to salvage the pier for GHȻ 9.5million at the end of its useful life, bringing the 10th year cash flow to GHȻ 17million.

THE PAYBACK PERIOD: THE ACCOUNTING RATE OF RETURN

SPEG's Management wants to know whether the anticipated benefits from the pier justify the GHȻ 40million cost. As we will see shortly, a proper answer to this question must reflect the time value of money. Before addressing this topic, let's consider two commonly used, back-of-the envelope type figures of merit, that despite their popularity, suffer from some glaring weaknesses. One, known as the **Payback Period**, is defined as the time the company must wait before recouping its original investment. For an investment with a single cash outflow followed by uniform annual inflows.

Payback Period =	Investment / Annual Cash Inflow	$[5^1/_3 = 40/7.5]$

The pier's payback period is thus $5^1/_3$ years, meaning that the company will have to wait this long to recoup its original investment.

The second widely used, but nonetheless deficient, figure of merit is the **Accounting Rate of Return**, defined as:

Accounting Rate of Return =	Average Annual Cash Flows / Total Cash Outflow	=	[(7.5 X 9 + 17)/(10)/40]

The pier's Accounting Rate of Return is 21.1 percent.

The problem with the Accounting Rate of Return is its insensitivity to the timing of cash flows. For example, a postponement of all of the cash inflows from SPEG's containers loading pier to year 10 obviously reduces the value of the investment but does not affect the Accounting Rate of Return. In addition to ignoring the timing of cash flows, the payback period is also insensitive to all cash flows occurring beyond the payback date. Thus an increase in the salvage value of the pier from GH¢ 9.5million to GH¢ 90.5million clearly makes the investment more attractive. Yet, it has no effect on the payback period; nor does any other change in cash flows in years 6 through 10.

In fairness to the payback period, I should add that, although it is clearly an inadequate figure of investment merit, it has proved to be useful as a rough measure of investment risk. In most settings, the longer it takes to recoup an original investment, the greater the risk. This is especially true in high technology environments where Management can forecast only a few years into the future.

THE TIME VALUE OF MONEY

An accurate figure of merit must reflect the fact that a GH¢ today is worth more than a GH¢ in the future. This is the notion of the time value of money, and it exists for at least three reasons. One is that inflation reduces the purchasing power of future cash relative to current ones; another is that in most instances the uncertainty surrounding the receipt of a GH¢ increases as the date of receipt recedes into the future. Thus the promise of GH¢ 1 in 30 days is usually worth more than the promise of GH¢ 1 in 30 months, simply because it is likely to be more certain.

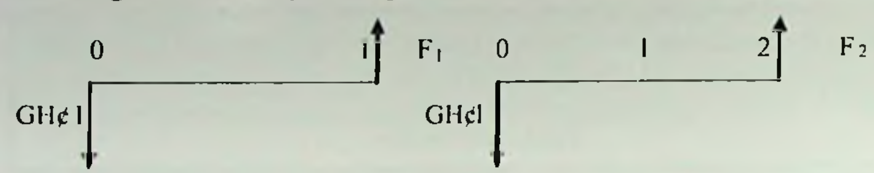
A third reason is, money has a time value which involves the notion of **Opportunity Costs**. By definition, the opportunity cost of any investment is the return one could earn on the next best alternative. An GH¢ today is worth more than GH¢ in one year because the GH¢ today can be productively invested and will grow into more than an GH¢ in one year. Waiting to receive the Eco until next year carries an opportunity cost equal to the return on the foregone investment.

COMPOUNDING AND DISCOUNTING

Because money has a time value, we cannot simply combine cash flows occurring at different dates as is done in calculating the **payback period** and the **accounting rate of return**. To adjust investment cash inflows for their differing time values, we need to use the ideas of compounding and discounting. Everyone who has ever had a bank account knows intuitively what compounding is. Suppose you have a bank account paying 10 percent annual interest, and you deposit GH₵1 at the start of the year, what will it be worth at the end of the year? Obviously, GH₵ 1.10. Now, suppose you leave the GH₵ in the account for two years, what will it be worth then? This is a little harder, but most of us realize that, because you earn interest on your interest, the answer is GH₵ 1.21. Compounding is the process of determining the future value of a present sum. The simple cash flow diagrams that follow summarise the exercise.

Interest Rate = 10%

Single-Period Compounding | Two-Period Compounding



F_1 = GH¢ 1 + (10%) (GH¢ 1)
= GH¢ 1 (1 + .10)
= GH¢ 1.10

F_2 = GH¢ 1.10 + (10%) (GH¢ 1.10)
= GH¢1 $(1 + .10)^2$
= GH¢ 1.21

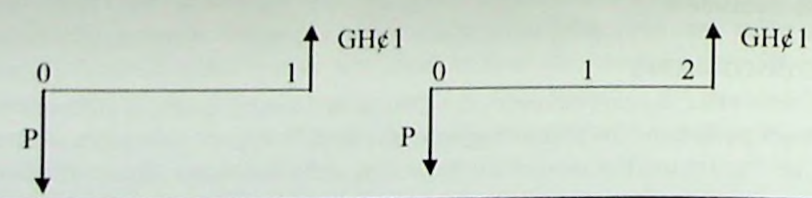
Discounting is just compounding turned on its head: It is the process of finding the present value of a future sum. Yet despite the obvious similarities, many persons find discounting somehow mysterious. And as luck would have it, the convention has become to use discounting rather than compounding to analyse investment opportunities.

Here is how discounting works. Suppose you can invest money to earn a 10 percent annual return and that you are promised GH₵ 1 in one year; what is the value of this promise today? Clearly, it is worth less than GH₵ 1, but the exact figure is probably not something that pops immediately to mind. In fact, the answer is GH₵ 0.909. This is the present value of GH₵ 1 to be received in one year because if you had GH₵ 0.909 today, you could invest it at 10 percent interest, and it would grow into GH₵ 1 in one year [GH₵ 1.00 = 0.909 (1 + 0.10)].

Now, if we complicate matters further and ask the value of one GH₵ to be received in two years, intuition fails most of us completely. We know the answer must be less than GH₵ 0.909, but beyond that things are a fog. In fact, the answer is GH₵ 0.826. This sum, invested for two years at 10 percent interest, will grow, or compound, into GH₵ 1 in two years. The following cash flow diagrams illustrate these discounting problems. Note the formal similarity to compounding. The only difference is that in compounding, we know the present amount and we seek the future sum, whereas in discounting we know the future sum and we seek the present amount.

Interest Rate = 10%

Single-Period Discounting | Two-Period Discounting



$$P = \frac{GH¢1}{GH¢1 + (10\%)\,(GH¢1)} = \frac{1}{1 + .10} = GH¢0.909$$

$$P = \frac{GH¢1}{GH¢1.10 + (10\%)\,(GH¢1.10)} = \frac{1}{(1 + .10)^2} = GH¢0.826$$

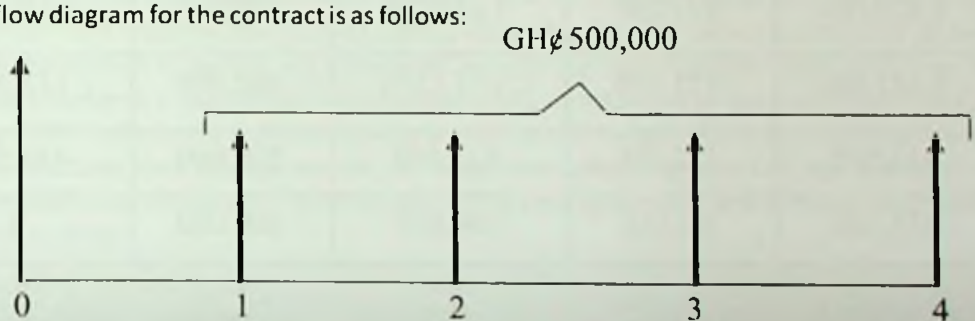
PRESENT VALUE TABLES

How did I know the answers to the discounting problem? I could have used the formulas appearing below the cash flow diagrams, or I could have used one of several brands of pocket calculators, or a computer spreadsheet, but I did none of these. I looked up the answers in Present Value Table. I might well have used a calculator or a computer if my sole purpose were to solve the problems posed, but because I also want to offer an intuitive explanation of compounding and discounting, I used the less elegant Present Value Table. Present Value Table, shows the present value of GH₵ 1 to be received at the end of any number of periods from 1 to 50, and at interest rates ranging from 1 to 50 percent per period. The present values appearing in the table are generated from repeated application of the above formulas for differing time periods and interest rates (It is common to find Present Value Tables as an appendix in any good Financial Management textbook).

As a matter of semantics, the interest rate in present value calculations is frequently called the **discount rate**. It can be interpreted two ways. If a company already has cash in hand, the discount rate is the rate of return that could be earned on alternative investments. In other words, it is the company's opportunity cost of the capital. If a firm must raise the cash by selling securities, the discount rate is the rate of return expected by buyers of the securities. In other words, it is the investors' opportunity cost of capital. As we will see in the next sections, the discount rate is frequently used to adjust the investment cash flows for risk and is hence also known as a risk adjusted discount rate (it is common to find Present Value Tables as an appendix in any good Financial Management Textbooks).

Present Value of Annuity Table is a close cousin to Present Value Table. It shows the present value of GH₵ 1to be received at the end of each period for anywhere from 1 to 50 percent per period. To illustrate both tables, suppose the RTU Club signs a promising new player to a contract promising GH₵ 500,000 per year for four years. Let us calculate what the contract is worth today if the footballer has investment opportunities yielding 15 percent per year.

The cash flow diagram for the contract is as follows:



To find the Present Value, P, using Present Value Table, we must find the present value at 15 percent of each individual payment. The arithmetic is:

Present Value = 0.870 XGH¢ 500,000 + 0.756 XGH¢500,000
+0.658 X GH¢500,000 + 0.572 +GH¢ 500, 000
= GH¢ 1,428,000

A much simpler approach is to recognise that since the GH¢ amount is the same each year, Present Value of Annuity Table can be used. Consulting the said Table, we learn that the present value of GH¢ 1 per period for four periods at a 15 percent discount rate is GH¢ 2.855. Thus, the present value of GH¢ 500,000 per period is:

Present Value of contract = 2.855 X GH¢ 500, 000 = GH¢ 1,428,000

Although the footballer will receive a total of GH¢ 2 million over the next four years, the present value of these payments is barely over GH¢ 1.4 million. Such is the power of compound interest.

EQUIVALENCE

The important fact about the present value of future cash flows is that the present sum is equivalent in value to the future cash flows. It is equivalent because if you had the present value today, you could transform it into the future cash flows simply by investing it at the discount rate. To confirm this important fact, Table 2 shows the cash flows involved in transforming GH¢ 1,428,000 today into the footballer's contract of GH¢ 500,000 per year for four years. We begin by investing the present value at 15 percent interest. At the end of the first year, the investment has grown to over GH¢ 1.6million, but the first GH¢ 500,000 salary payment reduces the principal to just over GH¢ 1.1million. In the second year the investment grows to over GH¢ 1.3million, but the second salary installment brings the principal down to just over GH¢ 800,000. And so it goes until at the end of four years the GH¢ 500,000 salary payments just exhaust the account. Hence, from the football player's perspective, GH¢ 1,428,000 today is equivalent in value to GH¢ 500,000 per year for four years because he can readily convert the former into the latter by investing it at 15 percent. Table 2 presents the picture better.

Table 2-cash flow analysis

Year	Beginning-of-Period Principal	Interest at 15 Percent	End-of-Period Principal	Withdrawal	Balance after withdrawal
	GH¢	GH¢	GH¢	GH¢	GH¢
1	1,428,000	214,200	1,642,200	500,000	1,142,200
2	1,142,200	171,330	1,313,530	500,000	813,530
3	813,530	122,030	935,560	500,000	435,560
4	435,560	65,334	500,894	500,000	0

THE NET PRESENT VALUE

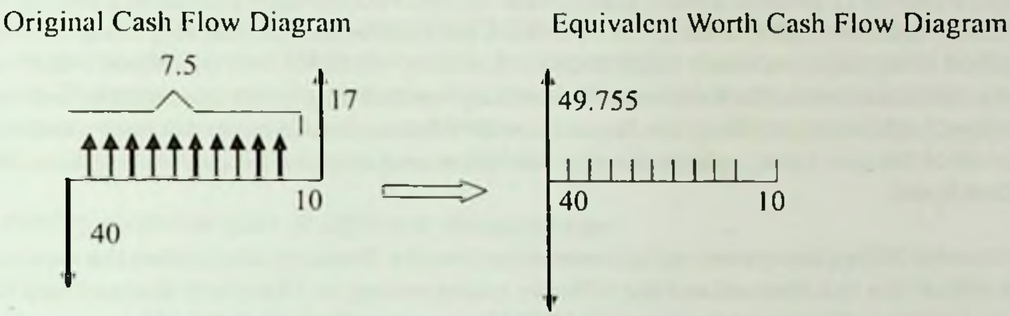
Now that you have mastered compounding, discounting, and equivalence, let us use these concepts to analyse the container pier investment. More specifically, let us use **Present Value Tables** and **Present Value Annuity Tables** to replace the future cash flows appearing in Table 2 with a single cash flow of equivalent worth occurring today. Because all cash flows will then be in current GH¢, we will have eliminated the time dimension from the decision and can proceed to a direct comparison of present value cash inflows against present value cash outflows.

Here is how it works in practice. Assuming SPEG has other investment opportunities yielding 10 percent, the present value of the cash inflows for the pier investment is as follows

Present Value of cash inflows = 5.759 XGH¢7.5 + 0.386 XGH¢ 17
= GH¢49.755 million

In this calculation, 5.759 is the present value of GH¢ 1 per year for nine years at a discount rate of 10 percent, and 0.386 is the present value of GH¢ 1 in year 10 at the same discount rate.

The cash flow diagrams below provide a schematic representation of this calculation. The present value calculation transforms the messy original cash flows into two cash flows of equivalent worth, each occurring at time zero. Our decision becomes elementary. Should SPEG invest GH¢ 40 million today for a stream of future cash flows with a value today of GH¢ 49.755 million? Yes, obviously, paying GH¢ 40 million for something worth GH¢ 49.755 million makes sense.



What we have just done is calculate the pier's Net Present Value, or NPV, an important figure of investment merit.

NPV = Present Value of Cash Inflows - Present Value of Cash Outflows
The NPV for the container pier is GH¢ 9.755 million.

The declaration that an investment's NPV is GH¢ 9.755 million may not generate a lot of enthusiasm around the water cooler; so it might be informative to offer a more intuitive definition of the concept. An investment's NPV measures how much richer you will become by undertaking the investment. Thus SPEG's wealth will rise GH¢ 9.755 million when it builds the pier because it pays GH¢ 40 million for an asset worth GH¢ 49.755 million. Since more wealth is customarily preferred to less, it is safe to conclude that all investments with a positive NPV are attractive because they increase wealth; all investments with a negative NPV are unattractive because they destroy wealth; and all investments with a zero NPV are marginal because they leave wealth unchanged.

In summary, when:

NPV > 0, accept the investment
NPV < 0, reject the investment
NPV = 0, the investment is marginal.

THE PROFITABILITY INDEX

The Net Present Value is a perfectly respectable figure of investment merit, but not necessarily the only concrete method to analyse investment opportunities. If you want to be able to communicate with people who use different, but equally acceptable, figures of merit, and if you want to reduce the work involved in analyzing certain types of investments, you will need to slog through a few more methods on this topic.

A second time-adjusted figure of investment merit popular in government circles is the **Profitability Index** (PI), or what is sometimes called the **Benefit-Cost Ratio**, defined as:

$$PI = \frac{\text{Present Value of Cash Inflows}}{\text{Present Value of Cash Outflows}}$$

The container pier's PI is 1.24 (GH¢ 49.755/ GH¢ 40). Obviously, an investment is attractive when its PI exceeds 1.0 and is unattractive when its PI is less than 1.0.

THE INTERNAL RATE OF RETURN

Without doubt, the most popular figure of merit among executives is a close cousin to the NPV known as the investment's **Internal Rate of Return** or IRR. To illustrate the IRR and to show its relation to the NPV, let's follow the fanciful exploits of the Tema Area Manager of SPEG as he tries to win approval for the container pier investment. After determining that the pier's NPV is positive at a 10 percent discount rate, the Manager forwards his analysis to the Company Treasurer with a request for approval. The Treasurer responds that he is favourably impressed with the Manager's methodology, but that in today's high-interest rate environment, he feels a discount rate of 12 percent is more appropriate. So the SPEG Manager calculates a second NPV at a 12 percent discount rate and finds it to be GH¢ 5.43 million, still positive but considerably lower than the original GH¢ 9.7 million (GH¢ 5.434 million = 5.328 X GH¢ 7.5 million + 0.322 X GH¢ 17 million - GH¢ 40 million). Confronted with this evidence, the Treasurer reluctantly agrees that the project is acceptable and forwards the proposal to the Chief Financial Officer. The fact that the NPV falls as the discount rises here should come as no surprise, for all of the pier's cash inflows occur in the future, and a higher discount rate reduces the present value of future flows.

The Chief Financial Officer, being even more conservative than the Treasurer, also praises the methodology but argues that with all the risk involved and the difficulty raising money, an 18 percent discount rate is called for. Doing his calculations a third time, the dejected SPEG Manager now finds that at an 18 percent discount rate the NPV is GH¢ 4.481 million. Because the NPV is now negative, the Chief Financial Officer, betraying his former career as a Bank Loan Officer, gleefully rejects the proposal. The Manager's efforts prove unproductive, but in the process he has helped us to understand the IRR.

Table 3 summarizes the manager's calculations. From these figures, it is apparent that something critical happens to the investment merit of the container pier as the discount rate increases from 12 to 18 percent. Somewhere within this range the NPV changes from positive to negative, and the investment changes from acceptable to unacceptable. The critical discount rate at which this change occurs is the investment's IRR.

Table 3 – NPV of container pier at differing discount rates

Discount Rate	NPV	
10%	GH¢9.755 million	
12%	5.434	
	←	IRR = 15%
18%	-4.481	

Formally, an investment's IRR is defined as the discount rate at which the investment's NPV equals zero.

The IRR is yet another figure of merit. The corresponding acceptable criterion against which to compare the IRR is the opportunity cost of capital to the firm. If the investment's IRR exceeds the opportunity cost of capital, the investment is attractive, and vice versa. If the IRR equals the cost of capital, the investment is marginal.

In summary, if K is the percentage cost of capital, then

IRR > K, accept investment
IRR < K, reject investment
IRR = K, investment is marginal

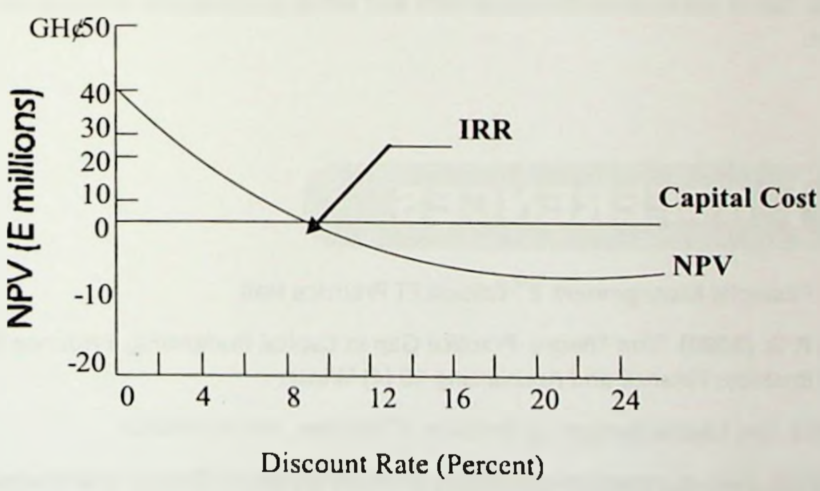
You will be relieved to learn that in most, but regrettably not all instances, the IRR and the NPV yield the same investment recommendations. That is, in most instances, if an investment is attractive based on its IRR, it will also have a positive NPV, and vice versa. Figure 1 illustrates the relation between the container pier's NPV and its IRR by plotting the information in Table 3.

Note that the pier's NPV = 0 at a discount rate of about 15 percent; so this, by definition, is the project's IRR. At capital costs below 15 percent, the NPV is positive and the IRR also exceeds the cost of capital; so the investment is acceptable on both counts. When the cost of capital exceeds 15 percent, the reverse is true, and the investment is unacceptable according to both criteria.

Figure 2 suggests several informative ways to interpret an investment's IRR. One is that the IRR is a break-even return in the sense that at capital costs below the IRR, the investment is attractive, but at capital costs greater than the IRR, it is unattractive.

A second, more important interpretation is that the IRR is the rate at which money remaining in an investment grows, or compounds. As such, an IRR is comparable in all respects to the interest rate on a Bank Loan or a Saving Deposit. This means you can compare the IRR of an investment directly to the cost of the capital to be invested. We cannot say the same thing about other simpler measures of return such as the Accounting Rate of Return because they do not properly incorporate the time value of money.

Figure 2 – NPV of container pier at different discount rates



CALCULATING AN INVESTMENT'S IRR

The IRR has considerably more intuitive appeal to most executives than the NPV or the PI. The statement that an investment's IRR is 45 percent is more likely to get the juices flowing than one indicating the investment's NPV is GHC 12 million, or that its PI is 1.41. The IRR is, however, usually harder to calculate; it is frequently necessary to search for the IRR by trial and error or, as the computer people would say, iteratively.

The first step in this trial and error process is to pick a likely IRR, selected in any fashion you like, and to test it by calculating the investment's NPV at the chosen rate. If the resulting NPV is zero, you're through. If it is positive, this is usually a signal that you need to try a higher discount rate. Conversely, if the NPV is negative you need to try a lower discount rate. This trial-and-error process done sometimes by extrapolation continues until you find a discount rate for which the NPV equals zero.

SUMMARY

The common methods of quantitative analysis used in the capital budgeting decision making process have been illustrated in simple form cutting through the mathematical sophistication that are usually associated with such analysis. The importance and definition of time value of money has been stressed coming from the common adage *"that a dollar today is not the same as a dollar tomorrow"*

The three key steps in the financial evaluation of investment opportunities which are:

(i) Estimate the relevant cash flow
(ii) Calculate a figure of merit and
(iii) Compare it with an acceptance criterion have been discussed.

It has been emphasized that investment appraisal methods such as Net Present Value (NPV), Internal Rate of Return (IRR), and Pay Back Period (PBP) all require the use of cash flows.

There is also the need to understand that investment decisions should be taken in the context of the business strategic plans.

The 'Basics of Capital Budgeting' Part II will explore the use of NPV and IRR in practice and address risk analysis in investment decisions.

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AUTHOR'S NOTE:

The 'BASICS OF CAPITAL BUDGETING' PART I was culled from Professor Kwame Boasiako Omane-Antwi is unpublished manuscript on "Essential Reading in Corporate Financial Management" first reviewed by Professor J. B. K. Aheto.

The author however accepts responsibility for every word right or wrong in this paper.

KNOWLEDGE WORKER AND WORKPLACE MOTIVATION

| *Brako Kojo* |

Abstract
This article seeks to examine the knowledge worker and how to motivate him or her. Some few years ago employers measured their assets in terms of fixtures, raw materials and the level of capital (money), but the situation has changed in recent times due to globalization and technological advancement. Human capital management has become the main issue for an organization to handle to be able to gain competitive advantage. Therefore employers have realized that knowledge workers within their organizations are their superior assets. This article looks at some of the motivational theories that employers can use to create a win-win situation with their knowledge workers.

Key words: *knowledge worker, knowledge management, intellectual worker, brain worker, professional worker, knowledge service, knowledge organization, knowledge work, competitive advantage, motivational theories, intrinsic motivation, physiological, equity theory, self-esteem, self actualization.*

Introduction

"Brainpower" is increasingly the key source of competitive advantage for companies in advanced economies. Previously determined by physical assets or financial leverage, value today is created primarily by intellectual power - the knowledge and innovation that resides in the organization. So a pressing question facing companies today is how to sustain and grow this competitive advantage, which is created and housed in the minds of its knowledge workers.

Knowledge management

The third wave of human socio-economic development is described by Charles Savage (1996) in "Fifth Generation Management." The first wave was the Agricultural Age with wealth defined as ownership of land. In the second wave, the Industrial Age, wealth was based on ownership of Capital, i.e. factories. In the Knowledge Age, wealth is based upon the ownership of knowledge and the ability to use that knowledge to create or improve goods (goods or product improvements include cost, durability, suitability, timeliness of delivery, and security) and services.

Knowledge management is a deliberate, systematic business optimization strategy that selects, distills stores, organizes, packages, and communicates information essential to the business of a company in a manner that improves knowledge worker performance and corporate competitiveness (Omane-Antwi B, 2008). Knowledge management is fundamentally about a systematic approach to managing intellectual assets and other information in a way that provides the company with a competitive advantage.

Knowledge work

While it can be challenging to identify your knowledge workers, it can be even more difficult to manage and evaluate them given the nature of the work. Because knowledge workers "think for a living," the work is often intangible, collaborative, iterative and mobile, making it difficult to "see" and difficult to measure. In addition, knowledge work depends on a combination of technical skills, behavioural competencies and attitudes, which also adds to the complexity of motivating, measuring and managing performance.

Knowledge work ranges from tasks performed by individual knowledge workers to global social networks. This framework spans every class of knowledge work that is being or is likely to be undertaken.

Level of Knowledge work

There are seven levels or scales of knowledge work.

- Knowledge work (e.g., writing, analyzing, advising) is performed by subject-matter specialists in all areas of an organization. Although knowledge work began with the origins of writing and counting, it was first identified as a category of work by Drucker (1973).

- Knowledge functions (e.g., capturing, organizing, and providing access to knowledge) are performed by technical staff, to support knowledge processes projects. Knowledge functions date from c. 450 BC, with the library of Alexandria, but their modern roots can be linked to the emergence of information management in the 1970s (Mcgee and Prusak, 1993).

- Knowledge processes (preserving, sharing, and integration) are performed by professional groups, as part of a knowledge management program. Knowledge processes have evolved in concert with general-purpose technologies, such as the printing press, mail delivery, the telegraph, telephone networks, and the Internet

- Knowledge management programs link the generation of knowledge (e.g., from science, synthesis, or learning) with its use (e.g., policy analysis, reporting, program management) as well as facilitating organizational learning and adaptation in a knowledge organization. Knowledge management emerged as a discipline in the 1990s (Leonard, 1995).

- Knowledge organizations transfer outputs (content, products, services, and solutions), in the form of knowledge services, to enable external use. The concept of knowledge organizations emerged in the 1990s (Davenport and Prusak, 1998).

- Knowledge services support other organizational services, yield sector outcomes, and result in benefits for citizens in the context of knowledge markets. Knowledge services emerged as a subject in the 2000s. (Simard et al., 2007).

- Social networks enable knowledge organizations to co-produce knowledge outputs by leveraging their internal capacity with massive social networks. Social networking emerged in the 2000s.

The hierarchy ranges from the effort of individual specialists, through technical activity, professional projects, and management programs, to organizational strategy, knowledge markets, and global-scale networking. This framework is useful for positioning the myriad types of knowledge work relative to each other and within the context of organizations, markets, and global economies. It also provides a useful context for planning, developing, and implementing knowledge management projects as well as positioning organizations to participate in the global network economy.

In a speech at Harvard University in 1943, Winston Churchill, the erudite former British Prime Minister, once said that "the empires of the future will be the empires of the mind". **This author believes that such "empires of the mind" will be controlled by "knowledge workers".**

Knowledge worker

A **knowledge worker** (also referred to as an **intellectual worker** or **brain worker**) is a knowledge worker employed due to his or her knowledge of a subject matter, rather than their ability to perform manual labor. It includes those in the information technology fields, such as developers, system administrators, technical writers and so forth. The term can also refer to knowledge workers outside of information technology but who are hired for their knowledge of some subject, such as lawyers, teachers, and scientists.

The term was coined by Peter Drucker in 1959, as one who works primarily with information or one who develops and uses knowledge in the workplace.

If organizations are to successfully compete in attracting, engaging and retaining their knowledge workers, they need criteria for determining who belongs in this knowledge worker segment.

Characteristics of knowledge workers

Certain characteristics of knowledge workers differentiate them from other process dominant workers. Such as

- The knowledge worker's work is unlikely to be routine or repetitive.
- Their work is carried out to professional or quality standards and subject to these as well the organization's own standards of verification and approval.
- Their work is aimed at meeting operational or strategic targets derived from project objectives or established as part of a problem-solving activities.
- Their work is intrinsically motivational and provides the inner drive (as opposed to external stimulus) for creative achievement.
- Knowledge workers are continuously developing their knowledge and skill in their chosen area of expertise.
- Their work is amenable to self-management.
- Their work is not easily supervised, partly because of the specialist nature of their work and partly due to the fact that their work is not amenable to physical observation and measurement.

Knowledge workers and motivational factors

Contemporary businesses in the western world operate in an environment of rapid, continuous changes. This epoch has been labelled the information age and it is suggested that the world is moving towards a knowledge-based economy in which most organizations increasingly employ knowledge workers. Knowledge or information workers are characterized as highly educated and demanding more input into how they perform their work than manufacturing workers.

Such workers might be expected to reject the traditional notions of career, based on professional advancement for a white collar elite and to behave more like "heretics", tearing down hierarchical, command-and-control management structures (Anonymous, 1999b).

Many knowledge workers are likely to fall into the Generation X demographic - those born between 1964 and 1974 - who grew up with the increasing failure of family and social systems that their parents took for granted, who are used to continuous change, and who might demand not to have to adapt to traditional management styles (McDevitt, 1999).

A survey of IT professionals by the Philadelphia-based Hay Group may shed some light on what motivates knowledge workers. The survey suggested that rather than financial rewards, these IT professionals were seeking satisfying careers and job challenges, and a common reason given for leaving an employer was the inability to advance careers without becoming a manager (Anonymous, 1999c). These findings appear to give weight to the following advice:

"You have to help people find meaning and fulfillment in what they do. They don't want to be "used" by the organization. They want to have stewardship over their own resources. They want to feel that they are making a personal contribution to something meaningful. And that's when you get real motivation and fulfillment. That's when you

release their potential, energy, and creative power. If you don't believe in the unseen human potential, you will only get status quo performance - business as usual." (Covey, 1999a)

Both the survey finding and Covey's advice strongly suggest that motivation for knowledge workers might accord closely with the apex of Maslow's hierarchy of needs: self-actualization. This might lend weight to Maslow's own argument that modern organizations exist to offer the opportunity for self-actualization (Zemke, 1998).

This evidence suggests that managers of knowledge workers could usefully consider how they might go about maximizing the autonomy of their staff, how to foster creativity and innovation, and how to facilitate self-actualization or personal and professional development.

Using Maslow's theory to motivate knowledge workers

The basis of Abraham Maslow's theory is that human beings are motivated by unsatisfied needs, and that certain lower factors need to be satisfied before higher needs can be satisfied. According to Maslow, there are general types of needs (physiological, survival, safety, love, and esteem) that must be satisfied before a knowledge worker can act unselfishly. He called these needs "deficiency needs." As long as we are motivated to satisfy these cravings, we are moving towards growth, toward self-actualization. Satisfying needs is healthy, while preventing gratification makes us sick or act vilely.

As a result, for adequate workplace motivation, it is important that leadership understands the active needs active for individual knowledge worker motivation. In this manner, Maslow's model indicates that fundamental, lower-order needs like safety and physiological requirements have to be satisfied in order to pursue higher-level motivators along the lines of self-fulfillment. As depicted in the following hierarchical diagram (figure 1), sometimes called 'Maslow's Needs Pyramid' or 'Maslow's Needs Triangle', after a need is satisfied it stops acting as a motivator and the next need one rank higher starts to motivate.

Figure 1
Abraham Maslow's Need Pyramid

- **Physiological Needs**: Provide ample breaks for lunch and recuperation. Devise a salary scheme that would allow knowledge workers to buy life's essentials.
- **Safety Needs**: Knowledge workers cannot reach maximum effectiveness or efficiency when they feel the need to constantly check their backs and scan their surroundings for fear of potential threats. Physical threats in the work environment can be alleviated by security guards, cameras, and responsive management knowledge workernel. Managers should also provide relative job security, retirement benefits, and the like.
- **Social Needs**: Generate a feeling of acceptance, belonging, and community by reinforcing team dynamics, planning team-based projects and social events.
- **Esteem Motivators**: Recognize achievements, assign important projects, and provide status to make knowledge workers feel valued and appreciated.
- **Self-Actualization**: Offer challenging and meaningful work assignments which enable innovation, creativity, and progress according to long-term goals. Provide opportunities that would allow your knowledge workers to reach their full career potential.

Microsoft CEO Bill Gates offers the following advice to managers:

> *"Develop your knowledge worker to do their jobs better than you can. This can be threatening to a manager who worries that he's training his replacement. If you're concerned, asks your boss: "If I develop somebody who can do my job super well, does the company have some other challenge for me or not?" Many smart managers like to see their knowledge workers increase their responsibilities because it frees the managers to tackle new or undone tasks." (Verespej, 1999)*

Such strategies to assist knowledge workers to attain self-actualisation are not only recommended by Covey and Gates, but by the contemporary business environment itself, which is subject to rapid and continuous change, and therefore demands from organizations the capacity to adapt to and capitalize on such changes. It is no longer adequate to adopt Kurt Lewin's change management strategy of thawing mindsets, creating new perceptions and then re-freezing mind-sets (Davidson, 1999), rather, - the era of turbulence and impermanence is not ending. "We are not heading towards some temporal oasis at which organizations will be able to tell themselves: "Okay, we've changed what is needed to be changed. Now we can get back to regular business." Regular business has passed away." (Lipman Bluman & Leavitt, 1999.)

In such an environment it makes sense to draw on the entire collective wisdom and skills of an organisation's staff to deal with continuous change, thus also making it clear to staff that the future of the organisation is in their hands. This conclusion accords with the view that senior management teams of the future will include members who might not be managers (Nadler, 1999, p. 60), and that knowledge worker loyalty will be built through interknowledge workeral work relationships (Anonymous, 1999e).

A significant barrier to giving knowledge workers greater autonomy is cultural difference from country to country, but most especially between the west and other cultures (Hofstede, 1999). For western managers, it might be appropriate to note that national employment or industrial relations systems are key factors in worker autonomy and have seen greater autonomy for workers in Nordic countries than in the US or Australia (Dobbin & Boychuk, 1999).

It may therefore be appropriate for managers to carefully examine what, if any, obstacles to knowledge worker autonomy are embodied in national and state industrial relations systems, and how these obstacles might be overcome. For example, instead of relying on a prescriptive industrial award for the terms and conditions of knowledge worker employment, managers might make use of enterprise bargains which accommodate demands for greater autonomy.

Another barrier to granting greater autonomy to knowledge workers might be management itself. There is some evidence to suggest that modern managers say they value autonomy, innovation, creativity and flexibility, but are not prepared to grant autonomy to their staff and fail to consult, share information or encourage teamwork (Covey, 1999b). Put another way:

Peter Drucker once said, "Most of what we call management consists of making it difficult for knowledge worker to get their work done. Amen!" To paraphrase Drucker' point for purposes of emphasis and further understanding; Payne (1999) indicated, "Most of what we call management consists of making it difficult for knowledge worker to take responsibility".

It appears that the traditional strategies in bureaucratic and scientific management styles of controlling information and power, and seeking to direct workers might be counterproductive in relation to knowledge workers, and that a "post modern" management style which is less hierarchical and more flexible might be more appropriate (Koechlin, 1999).

Using Equity theory to motivate knowledge workers

Equity theory proposes that individuals who perceive themselves as either under-rewarded or over-rewarded will experience distress, and that this distress leads to efforts to restore equity within the relationship. It focuses on determining whether the distribution of resources is fair to both relational partners. Equity is measured by comparing the ratios of contributions and benefits of each knowledge worker within the relationship. Partners do not have to receive equal benefits (such as receiving the same amount of love, care, and financial security) or make equal contributions (such as investing the same amount of effort, time, and financial resources), as long as the ratio between these benefits and contributions is similar. Much like other prevalent theories of motivation, such as Maslow's hierarchy of needs, Equity Theory acknowledges that subtle and variable individual factors affect each knowledge worker's assessment and perception of their relationship with their relational partners (Guerrero et al., 2007). According to Adams (1965), anger is induced by underpayment inequity and guilt is induced with overpayment equity (Spector, 2008). Payment whether hourly wage or salary, is the main concern and therefore the cause of equity or inequity in most cases. In any position, knowledge workers want to feel that their contributions and work performance are being rewarded with his/her pay. If a knowledge worker feels underpaid then it will result in the knowledge worker feeling hostile towards the organization and perhaps their co-workers, which may result in the knowledge worker not performing well at work anymore. It is the subtle variables that also play an important role for the feeling of equity. Just the idea of recognition for the job performance and the mere act of thanking the knowledge worker will cause a feeling of satisfaction and therefore help the knowledge worker feel worthwhile and have more outcomes.

Implications for managers

Equity theory has several implications for managers:

- Knowledge workers measure the totals of their inputs and outcomes. This means a knowledge working mother may accept lower monetary compensation in return for more flexible working hours.
- Different knowledge workers ascribe personal values to inputs and outcomes. Thus, two knowledge workers of equal experience and qualification performing the same work for the same pay may have quite different perceptions of the fairness of the deal.
- Knowledge workers are able to adjust to purchasing power and local market conditions. Thus a teacher from Tamale may accept lower compensation than his colleague in Accra if his cost of living is different, while a teacher in United States of America may accept a totally different pay structure.
- Although it may be acceptable for more senior staff to receive higher compensation, there are limits to the balance of the scales of equity and knowledge workers can find excessive executive pay de-motivating.
- Knowledge worker perceptions of inputs and outcomes of themselves and others may be incorrect, and perceptions need to be managed effectively.
- Knowledge workers who believe they are over-compensated may increase their effort. However they may also adjust the values that they ascribes to their own personal inputs. It may be that they internalizes a sense of superiority and actually decrease their efforts.

Conclusion

When it comes to retaining knowledge workers, your organization must have good remuneration packages in place, as well as good working conditions. The working environment of the organization must be nurturing and supportive of the continuous development of knowledge workers. Furthermore, management must develop a highly ethical workplace and attitude. Management must also build trust between themselves and knowledge workers, and must motivate and encourage lifelong learning amongst knowledge workers. However, it is equally important to give them "meaning" that is, a feeling that their talents and efforts are appreciated.

Finally, it is important to define gravity. This means that the organization must clear hurdles in the way of knowledge workers within the organization to enable them bring out their best to enhance its competitiveness.

Remember, everyone is not motivated by the same needs. At various points in their lives and careers, various knowledge workers will be motivated by completely different needs. It is imperative that you recognize each knowledge worker's needs currently being pursued. In order to motivate knowledge workers, leadership must understand the current level of needs at which the knowledge worker finds themselves, and leverage needs for workplace motivation.

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THE CHANGING PARADIGM OF MANAGEMENT: THOUGHT AND PRACTICE

| *Capt Sam Addaih (Rtd)* |

ABSTRACT

The development of management as a field of knowledge is a much more recent phenomenon; even though examples of management practice go back several thousand years.

This paper documents the wide swings in management approaches over the last century, which includes a variety of topics and writers. Early contributors were management practitioners who wrote about their experiences and attempted to generalize to some extent, basic principles. Later, many contributions came from writers who could be classified as more scientific and scholarly in their orientation.

The paper continues with contemporary thoughts on management by various researchers, and concludes with competencies required to be an effective practitioner in an ever-evolving discipline of management.

INTRODUCTION

In an introduction to his recent book on *Management*, Richard Daft dwells on a powerful metaphor, "Water is a vital force of nature that supports and develops life in spite of its constant movement. This turbulence of the ocean moves shells and organisms from place to place, the motion creates ripples that spread indefinitely on the horizon, and the water even connects people of other continents and cultures. The constancy of the ocean illustrates the power of change." He opines that "... today's world of management is also experiencing change as new paradigms shift, turn, and evolve the face of organizations and managers. Just as bodies of water are characterised by both chaos and control, there are patterns of order in the chaotic business world that can be understood to help managers cope with the rapid changes around them. The nature of management is caught up in waves of turbulence, from which a more responsive form of management is emerging." (Daft, 1997: 3).

THE BIRTH OF MANAGEMENT IDEAS

Management is not a new phenomenon. For thousands of years, people have wrestled with the same problems confronting executives today. The Chinese around 1100 BC had highly developed bureaucratic systems. The vast Roman Empire was highly decentralized and had a highly sophisticated system of controlling the activities of the sprawling empire before the birth of Christ. Religious organizations, such as the Catholic Church, have long managed missionary and other efforts throughout the world (George, 1972).

Management theory and formal instruction in the principles of management as we know them today is relatively new. Management emerged as a formal discipline at the turn of the 20th century occasioned by the challenges of the industrial revolution. The Wharton School at the University of Pennsylvania began formal studies in the 1880s. Other schools followed early in the last century. Management theorists believe that the study of management coincided with three important developments (Marsh, 1994; Daft, 1997; and Bateman and Snell, 1999):

1. *Growth of large corporations* the industrial organizations that emerged late in the 19th century demanded new models of managing their operations
2. *Separation of management and ownership* public ownership of common stock divorced investors from those who managed enterprises on a day-to-day basis. Skills were needed by professional managers who held only a small ownership interest in a business.
3. *Development of new theories* as management and business became formal areas of study, practitioners and academics created a body of knowledge that could be transferred through books and classroom instructions.

SCHOOLS OF MANAGEMENT THEORY

There were many ideas and theories during the first half of the 20th century to help managers deal with the changing realities. The plethora of ideas makes it exceedingly difficult to classify them. Harold Koontz (1961) attempted such a classification in his seminal article, "The Management Theory Jungle" in 1961. At that time he identified six schools. Subsequently, two decades later in 1980, The University of California professor, in "The Management Theory Jungle Revisited" disaggregated some schools of thought, maintained some, and added new intervening thoughts (1961-1980) to arrive at eleven current approaches to management theory and science.

We now outline the eleven approaches, and comment briefly on them as delineated by Koontz (1980: 177-180):

- **The Empirical or Case Approach:** The members of this school study management by analysing experience, usually through cases. It is based on the premise that students and practitioners will understand the field of management and somehow come to know how to manage effectively by studying managerial successes and failures in various individual cases.

- **The Interpersonal Behaviour Approach:** This approach is apparently based on the thesis that managing involves getting things done through people[1], and therefore the study of management should be centered on interpersonal relations. The writers and scholars of this school are oriented to individual psychology and their focus is on the individual and their motivations as socio-psychological beings.

- **The Group Behaviour Approach:** This approach is closely related to the interpersonal behaviour approach and sometimes confused with it. However, it is concerned primarily with behaviour of people in groups rather than with interpersonal behavior. It thus tends to rely on sociology, anthropology, and social psychology. Its emphasis is on group behavior patterns. It is often called the study of "organization behaviour."

- **The Cooperative Social System Approach:** A modification of the interpersonal and group behavior approaches has been the focus of some behavioural scientists on the study of human relationships as cooperative systems. The proponents of this approach perceive social systems as the cooperative interaction of ideas, forces, desires, and thinking of two or more persons. The concept is further applied to any system of cooperative and purposeful group interrelationships or behavior. The general title "organizational theory" is given by these theorists.

[1]This is the secular definition of management. Myron Rush provides the biblical approach as follows: Management is the meeting the needs of people as they work at accomplishing their jobs (Rush, 1973).

- **The Sociotechnical Systems Approach:** One the newer schools of management identifies itself with the sociotechnical approach. This development is credited to the Tavistock Institute in England. In studies made of production problems in coal mining, the group of researchers from Tavistock found that it was not enough merely to analyse social problems. Instead, in dealing with problems of mining productivity, they found that the technical system (machines and methods) had a strong influence on the social system. In other words, they discovered that personal attitudes and group behaviour are strongly influenced by the technical system in which people work. It is, therefore, the position of this school of thought that social and technical systems must be considered together, and that a major task of a manager is to make sure that these two systems are made harmonious.

- **The Decision Theory Approach:** This approach to management theory and science has apparently been based on the belief that, because it is a major task of managers to make decisions, we should concentrate on making decisions. Decision-making processes are treated both quantitatively and qualitatively. The goal is for managers to gather the relevant information, and process it effectively to reach rational decisions.

- **The Systems Approach:** During recent years, many scholars and writers in management have emphasized the systems approach to the study and analysis of management thought. The system theory approach is based on the notion that organizations can be visualized as systems. A system is a set of interrelated parts that operate as a whole in pursuit of common goals. Systems can be open or closed. An open system is one that operates in continual interaction with its environment. Through such interaction the system takes in new inputs and learns about how its outputs are received by various important elements. In contrast, a close system does little or no interacting with its environment and receives little feedback.

- **The Mathematical or "Managerial Science" Approach:** These theories seek to reduce management, organization, planning, and decision-making process down to their principles, which can be expressed by mathematical formulas. Similarities and differences among various systems can be identified only on an abstract mathematical level.

- **The Contingency or Situational Approach:** Essentially this approach emphasizes the fact that what managers do in practice depends on a given set of circumstances-the situation. Contingency management is similar to situational management and the two terms are frequently used interchangeably. Some scholars distinguish between the two on the basis that while situational management merely implies that what managers do depends on a given situation, contingency management implies an active interrelationship between the variables in a situation and the managerial solution devised. Thus contingency theory takes into account not only given situations but also the influence of given situations on behavior patterns of enterprises.

- **The Managerial Roles Approach:** Henry Mintzberg (1973) provided a new dimension to management theory when he identified managerial roles in *The Nature of Managerial Work* in 1973. Essentially, this approach is to observe what managers actually do and from such observations, come to conclusions as to what managerial activities (or roles) are. Mintzberg identifies these daily roles played by managers as:

Interpersonal roles - This refers to behavior with regard to subordinates (leading, motivating, staffing training, rewarding), peers (other managers, customers, vendors), and position as member of the management structure (ceremonial, social, legal).

Informational roles - This refers to the seeking of information needed to solve problems and disseminating information to people who need it to do their own jobs.

Decisional roles - This refers to planning, budgeting, allocating resources, negotiating with subordinates, customers, and suppliers, and conflict resolution.

- **The Operational Theory Approach**: This approach is what was originally referred to at the "Management Process School." The operational approach to management theory and science attempts to draw together the pertinent knowledge of management by relating it to the functions of managers. Like other operational sciences, it endeavors to put together for the field of management the concepts, principles, theory, and techniques that underpin the actual practice of managing. The approach recognises that there is a central core of knowledge about managing that exists only in management: such matters as line and staff; departmentalisation; the limitation of the span of management; managerial appraisal; and various managerial control techniques involve concepts and theory found only where managing is involved.

EARLY THEORIES

Many individuals contributed to the management literature of the early 1990s. Three important categories of thought can be identified as part of the operational theory approach. This approach hitherto called the management process school is sometimes referred to as the classical viewpoint. This is a perspective on management that emphasises finding ways to manage work and organisations more efficiently. The three different approaches are: scientific management; administrative management; and bureaucratic management.

Scientific Management

Scientific management is an approach within operational theory perspective that emphasizes the scientific study of work methods in order to improve worker efficiency.

In 1911, Frederick Taylor, an American engineer, wrote *Scientific Management,* a book that introduced the industrialized world to new ideas of management. Taylor introduced the concept of using scientific methods to measure and control processes of work. Taylor and his contemporaries, including Henry Gantt, and Frank and Lillian Gilbreth (husband and wife) were dedicated to finding one best way to perform a specific function.

Scientific management sought to separate planning from doing. It made use of time and motion studies to find a more efficient approach to work. It encouraged the use of incentive inducements to increase productivity. It emphasised specialization to the extent that skilled workers could perform the tasks for which they have been trained. It sought the full interchangeability of parts to reduce unnecessary complexity.

Scientific management had an impact on the level of productivity of an industrialising world. Efficiency was achieved as companies reduced the physical effort required to produce goods. Wasteful practices, in terms of material or energy, were reduced. The same level of goods could be produced by fewer workers using less material and other resources (Bartol and Martin, 1998).

Despite the gains, some people were convinced that scientific management was not the universal remedy to all business problems. First, critics claimed that Taylor ignored many job-related social and psychological factors by emphasising only money as worker incentive. Second, production tasks were reduced to a set of routine, machinelike procedures that led to boredom, apathy, and quality control problems. Third, although scientific management resulted in internal efficiency of organizations, it did not help managers deal with broader external issues competition and diversity at the senior management level (Bateman and Snell, 1999).

Administrative Management

The administrative management approach emphasised the perspective of senior managers within the organization, and argued that administrative management was an approach to management, and could be taught.

An explicit and broad framework for administrative management emerged in 1916, when Henri Fayol, a French mining engineer and executive, published a book, *General and Industrial Management,* summarising his management experiences. Fayol identified five functions and 14 principles of management. The five functions, which are similar to the functions defined in most foundational management textbooks, include planning, organizing, commanding, coordinating, and controlling.

Other executives also contributed to the administrative management literature. These writers discussed a broad spectrum of management topics, including the social responsibilities of management, the philosophy of management, clarification of business terms and concepts, and organizational principles. Chester Barnard's and Mary Parker Follet's contributions have become classic works in this area (George, 1972).

Chester Barnard was once the President of New Jersey Bell Telephone and recorded his observations in *The Functions of the Executive* published in 1938. Barnard outlined the role of the senior executive as formulating the purpose of the organization, hiring key individuals, and maintaining organizational communications. But perhaps his biggest contribution to the study of contemporary management, according to Bartol and Martin (1999), is his *acceptance theory of authority.* This theory argues that authority does not depend as much on "persons of authority" who give orders as on the willingness to comply by those who receive the orders. That is the essence of his identification of maintaining organizational communication as one of the cardinal senior management roles.

In *Dynamic Organizations* published in 1942, Mary Parker Follet extended Barnard's work by emphasizing the continually changing situations that managers face. According to management historians, two of Follet's key contributions the notion that managers desire flexibility and the difference between motivating groups and individuals laid the foundation for the contingency approach identified by Koontz (Bartol and Martin, 1999; Daft, 1997).

Bureaucratic Theories

Changes in production processes led to the need for the establishment of new organisations. Max Weber, a German sociologist, and his associates recognised that the creation of large organisations required structural changes. The traditional model, in which owners also managed the enterprise, would not work in the new world. An owner-managed business tends to reflect the personalities of the owner. Entrepreneurial personalities may make decisions on the basis of whim, fail to communicate their instructions effectively, and delegate tasks unevenly, and sometimes not to the right persons. Also, positions in the hierarchy may be assigned to friends or family members who lack the skills to perform their functions.

Max Weber contributed significantly to the concept of ideal bureaucracy. This was an organization governed by laws rather than personalities. It was impersonal and formal, where interchangeability of parts was accompanied by interchangeability of people. The ideal bureaucracy had a clear-cut division of labor; well-defined hierarchical structure; activities determined by a consistent system of impersonal rules; employment and advancement based on technical qualifications and protected against arbitrary dismissal; and businesslike management that transcended emotion and feeling.

Weber, building on the foundation of scientific management, made major contributions to the understanding of organizational structure that developed during the first half of the 20th century and beyond.

FUNCTIONAL MANAGEMENT

Following scientific management, administrative management, and bureaucracy theories, the operational theory approach (management process school) focused intensely on the functions of management. Business executives believe that the major ideas that dominated the period between 1920 and 1970 are:

- **Planning** - Planning is specifying the goals to be achieved and deciding in advance the appropriate actions to be taken to achieve those goals. Planning activities include analysing current situations, anticipating the future, determining objectives, deciding in what types of activities the company will engage in, choosing corperate and business objectives and determining the resources needed to achieve the organization's goals. Planning is required at all levels of the organisation. Lower level plans must cascade from the top, and be compatible with the organization's overall plan.

- **Unity of command** - The requirement that an employee should receive instructions from only one supervisor.

- **Division of work** - Work must be divided into manageable tasks. Clear areas of specialisation are needed to improve the technical performance of organisations. Such work specialisations can result in efficiencies and, are applicable to both managerial and technical functions. Yet there are limitations to how much that work should be divided.

- **Well-defined hierarchy** - Multiple levels of positions, with carefully determined reporting relationships among levels, provide supervision of lower offices by higher ones, a means of handling exceptions, and the ability to establish accountability of actions.

- **Span of management** - The optimal number of subordinates that should report to a single superior. For years managers have sought to determine the optimal span of management. In fact, Graicunas, an Austrian mathematician, in 1933 went as far as to express the optimal number quantitatively via a mathematical formula. Originally, the span of management (also called span of control) was determined as five to eight subordinates. More recently, the span should reflect a number of variables including nature of the process, the complexity of the task, the skills of the subordinates, work similarity, the physical proximity of subordinates to the manager, and the availability of considerable assistance (Daft, 1997).

- **Line and staff** - A related issue to vertical coordination is the configuration of line and staff positions. A line position is a position that has authority and responsibility for achieving the major goals of the organisation. That is, line executives are responsible for carrying out primary (core) functions, such as production and marketing. A staff position is a position whose primary purpose is providing specialized expertise and assistance to line positions.

- **Departmentalisation** - The personnel, the processes, and functions of an organization should be segregated into subunits and grouping that will contribute to achieving organisational goals. An organisation can be divided in several ways including by product, by process, by geographic areas, and by customer grouping.

- **Decentralisation** - Decentralisation is the process of systematically delegating power and authority throughout the organisation to middle and lower-level managers. Hence, a decentralised organisation is one in which decision-making power and authorities are delegated as far down the chain of command as possible. Decentralisation is one end of a continuum anchored at the other end by centralization: the process of systematically retaining power and authority at the hands of higher-level managers.

- **Staffing** - This is the recruitment, selection, training and promotion of employees. It involves studying the characteristics and desired behaviors for a job, developing a skills inventory, choosing the instruments to measure characteristics in applicants and hiring applicants who best meet selection criteria. Staffing also generally includes post hiring activities. The most important is evaluation of performance to ensure that the selection process is valid.

CONTRIBUTIONS OF HUMAN RELATIONS

A number of important management ideas can be attributed to the human relations school. Practitioners, however, discern the following for their practical implications regarding management.

Hierarchy of Needs

Abraham Maslow in 1954 postulated that needs follow a hierarchical progression. Lower-order needs must be satisfied first before higher-order needs will motivate people. The progression from lowest to highest is:

1. Physiological needs, such as food, water, and shelter.
2. Security needs, including personal safety and job security.
3. Social needs, includes affection, belongingness, acceptance and friendship.
4. Ego needs, includes internal esteem factors such as self respect; and external esteem factors such as status, recognition, and attention.
5. Self-actualization needs, that is, the drive to become what one is capable of becoming includes growth, achieving one's potential, and self-fulfillment.

Maslow's hierarchy explains why people have different needs and why a person may be motivated by different needs at different times (Robbins and Judge, 2007).

The Two-Factor Theory (Satisfiers and Motivators)

Frederick Herzberg in 1959 contended that factors that cause dissatisfaction are not the same factors that cause satisfaction. Hygiene factors are defined as those that can satisfy only. These include company policies, interpersonal relationships on the job, quality of supervision, and salary. They are different from factors that motivate people to do a good job. Motivating factors are recognition, achievement, and the nature of work itself. Thus, managers who seek to eliminate factors that cause job dissatisfaction may bring about workplace harmony but not necessarily motivation.

Theory X and Theory Y

In The Human Side of Enterprise published in 1960, David McGreggor identified two categories of managers based on their view of subordinates. Theory X managers assume that the average person is lazy, lacks ambition, dislikes responsibility, and prefers to be led. Therefore, subordinates must be rewarded or punished as the situation demands and their activities must be closely supervised. Theory Y managers, on the other hand, assume that the potential for development, the capacity for assuming responsibility, and the readiness to strive to achieve organizational goals are present in all workers. The role of management, therefore, is to assist people to recognize and develop these characteristics for themselves.

Reinforcement Theory

In 1953, B. F. Skinner proposed positive reinforcement as a means of encouraging good behavior. He explained that people will most likely engage in desired behavior if they are rewarded for doing so; these rewards are most effective if they immediately follow a desired behavior, and behavior that is not rewarded, or punished, is less likely to be repeated. Some theorists propose that managers should continue this process by reinforcing desired behavior with psychological and material rewards. Essentially, the behavior of an individual would be manipulated into desired channels through the mechanism of operant conditioning (Robbins and Coutler, 2005).

LEADERSHIP THEORIES

Closely related to, but distinct from, management are theories of leadership. Managing is the formal process in which organizational objectives are achieved through the efforts of superiors and subordinates. Stated differently, management is the art of getting things done through others. Leading is the process in which a person with power is able to influence the behavior of others.

The leadership theory proposed by Bernard Bass (1989; 1990) states that there are three basic ways to explain how people become leaders. These are:

- The Trait Theory Some personality traits may lead people naturally into leadership roles. The list includes intelligence, supervisory ability, self-assurance, initiative, and individuality. The assumption is that individuals with these traits will be successful leaders.

- The Great Events Theory A crisis or important event may cause a person to rise to the occasion, which brings out extraordinary leadership in an ordinary person.

- The Transformational Leadership Theory- People can become leaders. People can learn leadership skills. This is the most widely accepted theory today and many concepts have been postulated to further expatiate the theory.

Factors of Leadership

There are four major factors in leadership:

- **Follower** - Different people require different styles of leadership. For example, a new hire requires more supervision than an experienced employee. A person who lacks motivation requires a different approach than one with a high degree of motivation. The fundamental starting point is having a good understanding of human nature such as, needs, emotion, and motivation.

- **Leader** - Leaders must have an honest understanding of who they are, what they know, and what they can do. Also, those in the position of leadership must note that it is the followers, not the leader who determines if a leader is successful. If they do not trust or lack confidence in their leader, then they will be uninspired. To be successful, leaders have to convince their followers that they are worthy of being followed.

- **Communication** - Leadership is practiced through two-way communication. Much of it is nonverbal. For instance, when we "set the example" that communicates to our people that we would not ask them to perform anything that we would not be willing to do. What and how a leader communicates either builds or harms the relationship between them and their employees.

- **Situation** - All are different. What is done in one situation will not always work in another. There is the need for the use of judgment to decide the best course of action and the leadership style needed for each situation.

LEADERSHIP MODELS

Leadership models help us understand what makes leaders act the way they do. The ideal is not to be locked in to a type of behaviour discussed in a model, but to realize that every situation calls for a different approach or behaviour to be taken. There are several models: The Managerial Grid by Blake and Mouton; The Leadership Continuum by Tannenbuam and Schmidt; and The Four Framework Approach by Bolman and Deal. We will briefly discuss the third model in these pages (the first two models are discussed in our Vol. 3 April-June 2008 pages 40-49 in Leadership and Excellence).

The Four Framework Approach

Bolman and Deal (1991) suggest that leaders display leadership behaviours in one of four types of frameworks: structural, human resource, political, or symbolic. The style can either be effective or ineffective, depending upon the chosen behaviour in certain situations.

- **Structural Framework -** In an effective leadership situation, the leader is a social architect whose leadership style is analysis and design. While in an effective situation, the leader is petty tyrant whose leadership style is details. Structural Leaders focus on structure, strategy, environment, implementation, experimentation, and adaptation.

- **Human Resources Framework -** In an effective leadership situation, the leader is a catalyst and servant whose leadership style is support, advocacy, and empowerment. While in an ineffective leadership situation, the leader is a pushover, whose leadership style is abdication and fraud. Human Resource Leaders believe in people and communicate that belief; they are visible and accessible, they empower, increase participation, support, share information, and move decision-making down the organisation.

- **Political Framework -** In an effective leadership situation, the leader is an advocate, whose leadership style is a coalition building, while in an in effective leadership situation, the leader is a hustler, whose leadership style is manipulation. Political leaders clarify what they want and what they can get; they assess the distribution of power and interests; they build linkages to other stakeholders, and use persuasion first; they use negotiation and coercion only if necessary.

- **Symbolic Framework -** In an effective situation, the leader is a prophet, whose leadership style is inspiration. While in an ineffective leadership situation, the leader is a fanatic or sycophant, whose leadership style is smoke and mirrors. Symbolic leaders view organisations as a stage or theatre to play certain roles and give impressions; these leaders use symbols to capture attention; they try to frame experience by providing plausible interpretations of experience; they discover and communicate vision.

The model suggests that leaders can be put into one of these four categories and there are times when one approach is appropriate and times when it would not be. Any one of these approaches alone would be inadequate, thus an attempt should be made to imbibe all four approaches.

MANAGEMENT THEORIES TODAY

After 1960, schools of management were not easily identifiable. Various contributions were made on variety of fronts to the study and practice of management.

Principles of Management

Peter Drucker synthesised and extended many of the best business and management ideas. In his The Practice of Management, first published in 1955, he defined management as an economic organ of an industrial society. He reiterated that management is therefore an assessment of business performance to achieve an economic goal. Therefore, management to Drucker is more of a practice than a science or a profession. His Management: Tasks, Responsibilities, and Practices is a classic interpretation of the full range of effective management practices. In the book he identifies five basic functions of a manager: setting objectives, organizing, motivating and communicating, measuring against standards, and developing people (Drucker 1973).

Management Skills

Robert Katz (1974) in an article titled "Skills of an Effective Administrator" pointed out that management's real concern should be for what a person can do rather that what he is. He identified three basic skills technical, human and conceptual that every successful manager must have in varying degrees, according to the level of management.

- **Technical Skills** - Technical skill is the understanding of and proficiency in the performance of specific tasks. Technical skill includes mastery of the methods, techniques, and equipment involved in specific functions such as engineering, manufacturing, or finance. Technical skill also includes specialised knowledge, analytical ability, and the competent use of tools and techniques to solve problems in that specific discipline.

- **Human Skills** - Human skill is the ability to work well with other people both individually and in groups. Because managers deal directly with people, this skill is very important. This skill is demonstrated in the way a manager relates to other people, including the ability to motivate, facilitate, coordinate, lead, communicate, and resolve conflicts.

- **Conceptual Skills** - Conceptual skill is the cognitive ability to see the organization as a whole and the relationship among its parts. Conceptual skill involves the manager's thinking, information processing, and planning abilities. It involves knowing where one's department fits into the total organisation and how the organization fits into the industry, the community, and the broader business and social environment. It means the ability to think strategically to take a broad, long-term view.

Theory Z

William Ouchi in 1981 attributed the secret of Japanese success to a special way of managing people and not to technology as most people had assumed. This management style focuses on strong company philosophy, a distinct corporate culture, long-range staff development, and consensus decision-making. In essence, the theory Z manager produces a strong commitment to the organisation by paying careful attention to employees. The workplace provides job security, opportunities for advancement, and group problem solving, as managers work together with employees to achieve organizational goals.

Management Competencies

David McClelland is often cited as the founder of the modern competency movement for his 1973 paper, Testing for competence rather than intelligence. In his paper, he argues that aptitude and intelligence tests are not all that valid. He suggested that for a test to serve as the basis for a new approach that will be favorable to good competency assessment: (a) it should start with exploration of particularly operant measures of thought and actions associated with the criterion; (b) it should assess clusters of criteria of success in clusters important life outcomes; (c) the competencies assessed should be defined and described in ways that reflect important life changes or learning; and (d) how to improve on the competencies should studied, and made explicit.

Subsequently, he identified the competency of effective managers. His list of competencies includes:

- **Entrepreneurial orientation** - This refers to a proactive approach toward action as opposed to inaction, when pursuing efficiency and the achievement of organizational goals.

- **Intelligence** - This refers to the ability to solve problems by reasoning. The manager must recognize patterns and conceptualize approaches to decision making.

- **Versatility** - This refers to a group of socio-emotional attributes. Effective managers are under control when dealing with subordinates, crises, and day-to-day problems. They deal with conflict in a careful and objective manner, accurately assessing their own strengths and weaknesses as well as the strengths and weaknesses of others.

- **Interpersonal skills** - This refers to skills in dealing with subordinates and superiors. With subordinates, it involves coaching, mentoring, and the proper use of authority and power. With superiors, it involves communications and persuasive skills.

More than two decades after McClelland's study, Brent Allred, Charles Snow, and Raymond Miles (1996) found out in a research that the characteristics and attributes that typify a managerial career are shifting along with developments in organisation structure. They concluded that the competencies needed for a successful management in today's organizations may be inadequate in the emerging organizational forms of the 21st century.

What exactly are the specific competencies that individuals must have for success in the twenty-first century organisation? From the research sources of Allred and his colleagues, they developed five categories of knowledge, skill, and other personal attributes that will be necessary for successful managerial career in the twenty-first century. The managers in their study attributed these competencies to the evolving shape of organisations, especially to modern network structure and even more futuristic designs (Allred, Snow, and Miles, 1996:23-27).

- **Knowledge-Based Technical Specialty** - As in the past, a managerial career in the future will be built on a technical specialty. An individual will still begin his or her career as a chemist, accountant, computer specialist, and so on. However, unlike the past, many future careers will not evolve into management of a permanent workforce. Instead, people will be responsible for managing themselves while collaborating with others.

- **Cross-Functional and International Experience** - Managers of the future will be required to have extensive cross-functional experience. Cellular organisations[2] will require most of their staff to be adept project managers because this is the form that much future work will take. Managers will need basic understanding of other functions' paradigms and approaches so that multi-disciplinary resources can be quickly assembled and utilized.

  Multicultural and international experience will also be valued as even the smallest cellular organizations extend their reach into the international business arena. However, though a global perspective and international experience will be necessary, such characteristics will have to be acquired from a limited number of expatriate

[2]A cellular organization is made up of cells (self-managed teams, autonomous business units, etc.) that could exist on their own, but that by interacting with other cells can produce a more potent and competent organism.

experiences. Many international companies now rely primarily on local talent to staff their far-flung business units, rather than using expatriates.

- **Collaborative Leadership** - For network and cellular organisations, collaborative competencies will become more important to keep pace with the organisation of work. In network organisations, referral skills, partnering skills, relationship management, and other collaborative competencies are central to effective management. Cellular organisations will depend even more on collaborative abilities, as project teams become the primary organising unit.

- **Self-Management Skills** - In the most advanced cellular organisations those that contain no managerial hierarchies or rules individuals will have to manage themselves. Therefore, in addition to the technical, commercial, and collaborative skills needed to interact with more traditional organisations, individuals will need to have a full complement of self-governance skills. These will include the willingness to act ethically, the ability to forgo short-term opportunities that may damage the long-term collective good, and particularly, the foresight to plan the next useful career step. Many individuals will invest in a continuous learning process that not only helps them recognise career opportunities, but also to develop the means to take advantage of it.

  A related aspect of the self-management process is the balance between work and family. As more people begin to work in situations that are free of bosses, rules and offices, they will be able to choose where and when they perform their work. Without a company and a boss determining one's schedule, individuals will be responsible for managing their time including time spent with their families.

- **Personal Traits** Individual traits will always play an important role in professional development. Clearly, the most critical attribute future managers must have is flexibility. The move from bureaucratic to cellular organizations will require managers, among other things, to take the leading role on one project and to fulfil only a specific technical function on another. In addition, integrity and trustworthiness will be vital personal attributes in an increasingly collaborative, self-governing workplace.

Changing Workplace

The principles and lessons of management form a rich pattern of theory and application. They must be applied in a changing workplace. In fact, Edward Lawler (1996) believes that technology, political change, and economic change have created more complex work and a more demanding global business environment. In order to be successful, therefore, he suggests corporations must both respond quickly to change and develop ever-higher levels of productivity, quality, and innovation. Lawler posits, "In today's competitive environment, corporations can no longer rely on a bureaucratic management approach based on 19th century technology and ideas. They must reinvent themselves and rebuild their organisations from the ground up to form a 21st century organisation." (Lawler, 1996: xi).

NEW LOGIC ORGANISATION

The principles and lessons of management must be applied in a contest of changing desires and expectations. To fulfil the expectations of the various stakeholders that make up a contemporary organization, Lawler in his book *From the Ground Up* says that a new logic is developing an approach to organizing corporations that will shape them for decades. This approach draws from most of management ideas and current business concepts as employee involvement, total quality management, reengineering and other approaches discussed in this paper. Lawler proposes six principles that form the foundation of the new logic. The principles assert that a corporation's approach to organizing can be the ultimate competitive advantage if it includes the following features:

- Involvement is used as the source of control.
- Work is structured so that all employees add significant value.
- Lateral processes are emphasized.
- The organization's structure is designed around products and customers.
- Effective leadership is practiced throughout the organization.

The new logic is a long-term approach to creating organizations that can be competitive in the business environment of the twenty-first century. It uses new principles to help organizations change every significant element of how they operate, from how people are paid, how work is designed, and how people are hired and trained, to what kind of information systems are uses.

The six new logic principles as postulated by Lawler are:

1. Organization can be the ultimate competitive advantage.
2. Involvement is the most effective source of control.
3. All employees must add significant value.
4. Lateral processes are the key to organizational effectiveness.
5. Organizations should be designed around products and customers.
6. Effective leadership is the key to organizational effectiveness.

The six new logic principles are integrated. They should be adopted holistically and used as the foundation of a comprehensive approach to organizing and managing that involves new approaches to all the systems and practices that are critical to organizational effectiveness.

CONCLUSION

Much has been written in the twentieth century to create the theories and practices of management. As the world changes there would be continuing demand for professionally trained managers. At the same time, new skills and knowledge are required as managers cope with new realities in the workplace, competitive markets, and the business environment. Management is a dynamic area of activity, both in theory and practice, and would continue to evolve as we confront change.

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ECONOMIC AND FINANCIAL REPORT

Databank

Leadership

FIXED INCOME MARKETS Analysis & Strategy

AFRICA

Africa: Real Return on Debt Papers Improve

Real returns on government securities improved across most African countries, amidst currency risk exposures that still make some fixed income markets unattractive to foreign investors. The downturn in inflation across most African countries after the price level shocks in 2008 has facilitated inflation rate declines in line with central bank targets, and an improvement in real interest rates.

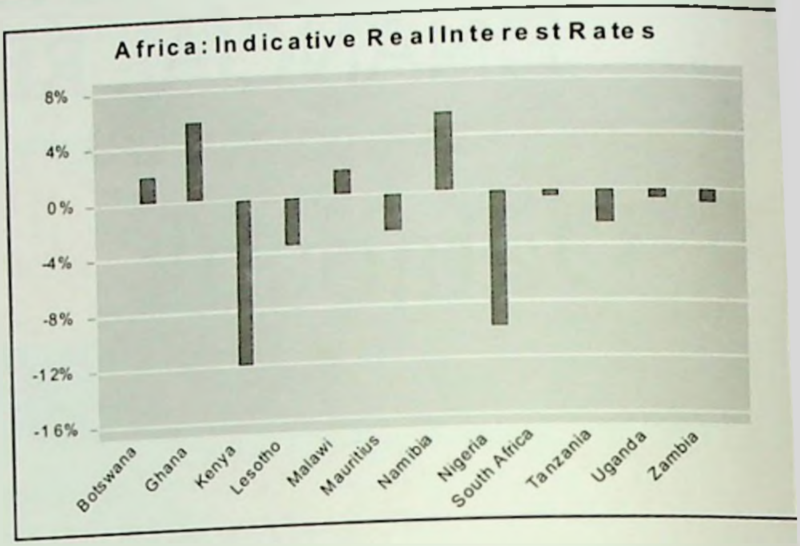
The yield on Ghana's most liquid debt paper was the highest in nominal and real terms among 12 selected African countries at 25.78% and 5.72% respectively. Namibia registered the second highest indicative real interest rate at 5.70%, with a nominal yield of 15.30% during the period. Kenya remains the least attractive country in terms of real returns, with a current indicative real interest rate of -12.01%. We anticipate that fixed income yields will remain attractive across most African countries within the short to medium-term, as high volatility still persists across most stock markets.

Treasury Market & Inflation Figures [Five Months To May, 2009]

Countries	Inflation Figures	91-Day Treasury Bill (Yield)	Indicative Real Interest Rates	Currency Risk Exposure
Botswana	8.40%	10.34%	1.94%	Positive
Ghana	20.06%	25.78%	5.72%	Negative
Kenya	19.50%	7.49%	-12.01%	Neutral
Lesotho	9.50%*	5.96%	-3.54%	Positive
Malawi	8.70%	10.59%	1.89%	Neutral
Mauritius	7.40%	4.65%	-2.75%	Neutral
Namibia	9.60%	15.30%	5.70%	Positive
Nigeria	13.20%	3.40%	-9.80%	Negative
South Africa	8.40%*	7.82%	-0.58%	Neutral
Tanzania	11.30%	8.87%	-2.43%	Neutral
Uganda	12.40%	11.61%	-0.79%	Negative
Zambia	14.70%	13.64%	-1.06%	Neutral

Source: Country Statistics Offices, Databank Databases, and Central Banks Websites
South Africa and Lesotho's inflation rates are as of April, 2009

Africa: Overview Of Fixed Income Markets (January-May, 2009)



Increased risk aversion and the continuing bearish outlook of African stock markets have facilitated improved fixed income market activities across most countries. Investors resorted to fixed income securities as domestic stock markets suffer from the contagion of the global economic downturn. With the continuing weak global commodity demand and prices, it is likely that fixed income activity will remain brisk throughout the year.

Yields on fixed income securities across most Africa countries began increasing in 2008, as central banks marked-up policy interest rates to curb inflation, which was driven by global food and energy price hikes. In the wake of anticipated growth declines in 2009, policy interest rates are likely to further decline in the next two quarters. Benchmark interest rates, however, are not likely to decline in countries with high fiscal deficits and financing gaps. This could be the case of Ghana and Kenya, in particular, unless their external resources inflows increase above 2008 levels.

Ghana's fixed income market remains attractive with noticeable increases in both nominal and real returns since July, 2008. Specifically, the yield on the 91-day Treasury bill increased from 19.85% as at the end of July, 2008 to 25.74% by the end of May, 2009. We expect average yields for Ghana's 91-day Treasury bill to further increase in the next four months to 29.5% on the back of increased government borrowing.

Benchmark interest rates for Nigeria lagged behind inflation during the first five months to May, 2009. The country's disinflation process was distorted by the global energy and food price hikes during the first half of 2008. Inflation for Nigeria increased from 9.7% in May, 2008 to 13.3% in May, 2009; but the yield on the 91-day bill, for example, remained in single digits at 3.4% as at May, 2009. As crude oil prices begin to strengthen domestic borrowing pressures are likely to ease which could help keep yields steady at current levels for Nigeria throughout the year.

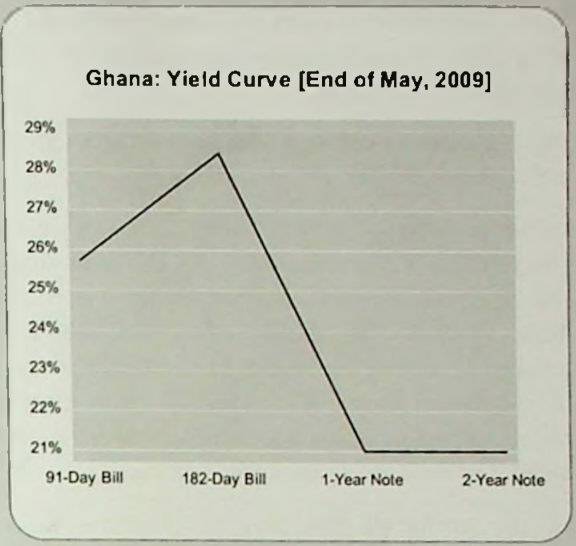
With the exception of South Africa, the yield curve dynamics for most Africa countries favor money market instruments compared to capital market securities. Investors will continue to focus on money market securities as yield curves remain inverted and uncertainties remain over medium to long-term macroeconomic risk. In our view, we expect investors to keep to money market instruments for non-oil producing countries with high fiscal deficits. For countries with improved fiscal space, investing in capital market debt securities could mitigate interest rate risk exposure over the medium term.

GHANA

Ghana's fixed income yields increased albeit marginally as fiscal pressures lingered on and inflation surged above 20.0% during the first five months of 2009. The high yields will continue to attract domestic investors, while severe currency weakness will hold back foreign investors.

On the money market interest rates on the 91-day and 182-day bills ended the month of May, 2009 at 25.7% and 28.2% respectively. This indicates an increase of 1.0% and 2.0% from 24.7% and 26.2% respectively in December, 2008. The yield on the longer dated 1-year note was also up by 1.0%, from 20.0% in December, 2008 to 21.0% by the end of May, 2009. Interest rate on the 2-year note, however, remained flat at 21.0% during the period.

In our opinion, interest rate risk exposure exists for Ghana, and investors will be better off keeping to the short-end of the market. It is likely that yields on the 91-day and 182-day bills will move in line with inflation dynamics in the next four months, but that of the 1-year and 2-year notes could remain unchanged at 21.0% during the same period.

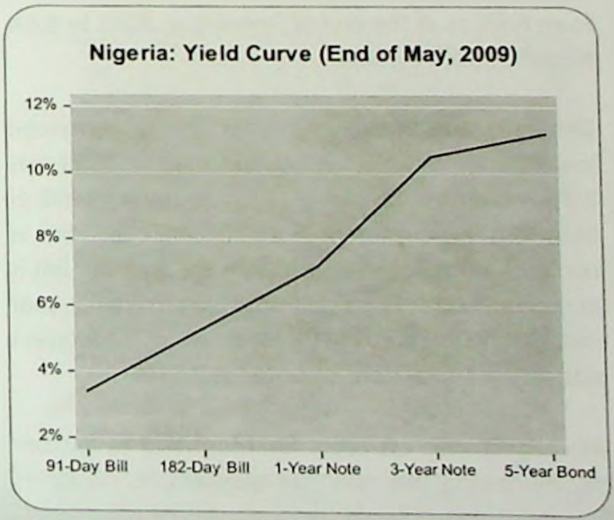


NIGERIA

Nigeria's interest rates generally moved up during the first five months to May, 2009 in line with increased inflation risk and higher public sector borrowing during the period.

The country's average interbank call rate increased significantly from 4.8% at the beginning of the year to 13.5% as at the end of May. Yields on the 91-day and 182-day bills were up from 2.4% and 2.9% in January, 2009 to 3.4% and 5.3% respectively in May, 2009. The yield on the 1-year note was up from 5.8% to 7.2% during the same period. On the capital market, interest rate on the 3-year bond edged up from 9.9% to 10.5%, while that of the 5-year bond eased to 11.2% from 11.4%.

The downturn in inflation and improvements in crude oil prices is likely to translate into lower interest rates during the second half of the year. It is likely that interest rates will decelerate over the medium term, as inflation eases and crude oil prices stabilize. In our view, taking a long position in the fixed income market will be healthy, but currency risk is a source of worry for foreign investors. It is likely that the recent lifting of restrictions on forex, which will be done over a three month period, will improve currency stability over the medium term.



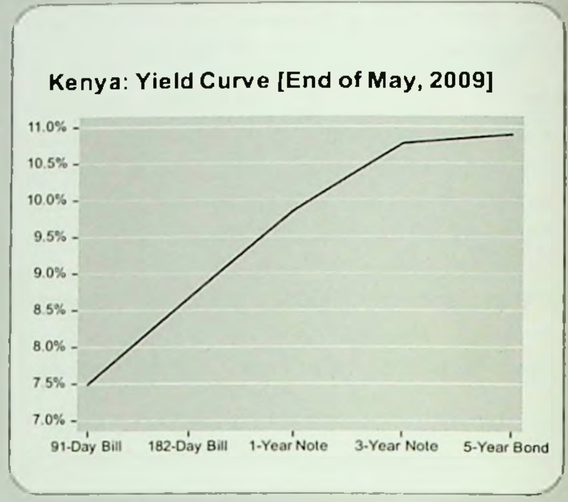
KENYA

Interest rates for Kenya remained markedly below inflation. It is unlikely that benchmark interest rates will outperform inflation over the short to medium term. Real interest rates for Kenya remained the least attractive among the 12 African countries profiled for this report.

Yields on the 91-day and 182-day bills were quoted at 7.49% and 8.67%

respectively as at the end of May, 2009. The yield on the 3-year bond was quoted at 10.8%, while that of the 5-year and the 10-year bonds were quoted at 10.9% and 11.7% respectively. Yields on fixed income securities for Kenya have remained lower than inflation since 2008; though the post-election crisis pushed inflation above historical levels and facilitated increase government borrowing.

As the country's tea and horticulture export proceeds decline on the back of weak global demand, we expect government revenue to slow in 2009. In our view, this can put pressure on public sector borrowing and push real interest rates up during the third quarter. Despite some stability in the shilling to dollar exchange rate, potential currency risk exposure could continue to deter foreign investors from Kenya's fixed income market.

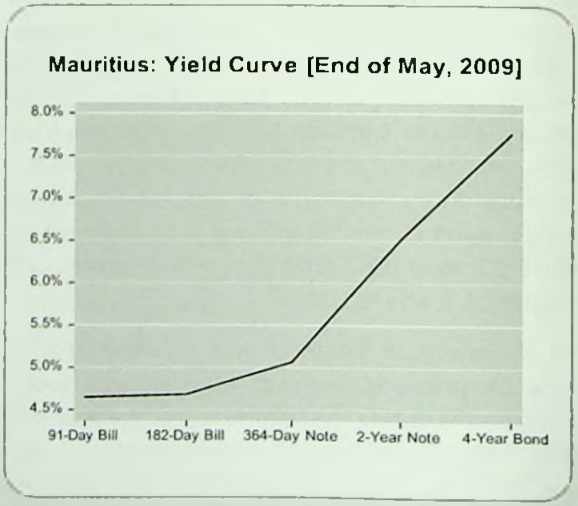


MAURITIUS

Interest rates have declined in the first five months of the year to May in line with inflation dynamics and the need to stimulate domestic growth. The country's key policy rate, the bank rate, declined from 8.8% as at the end of December, 2008 to 4.8% by the end of May, 2009.

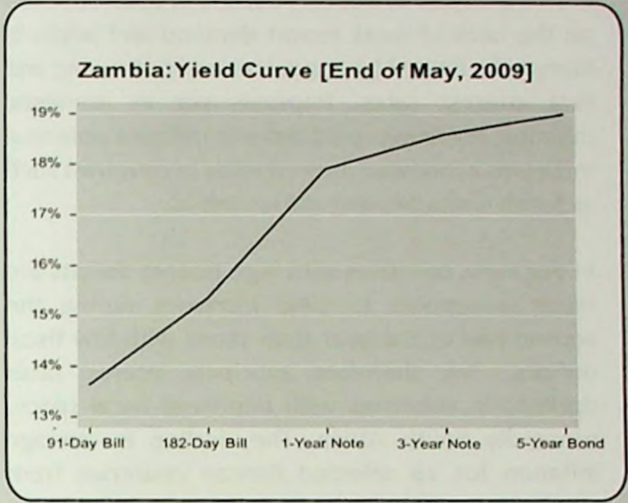
Generally, benchmark interest rates remained lower than inflation. Inflation for April, 2009 was 8.0%, which is unfavorable compared to the bank of Mauritius repo rate of 5.8%. The 91-day bill is currently quoted at 4.65%, while the 182-day bill is quoted at 4.68%. The yields on the 1-year and 2-year notes are 5.06% and 6.52% respectively. The interest rate on the 4-year note is quoted at 7.77%.

We expect interest rates for Mauritius to further decline during the next two quarters, as concerns over growth are likely to deepen. The domestic currency remains relatively stable and we expect investors to take long positions in the country's fixed income market. The key central bank rate, the repo rate, is likely to close the year below 4.5%.



ZAMBIA

Benchmark interest rates inched down during the five months to May, 2009 in line with lower inflation outturns, despite the mark-up in government borrowing. The country's yield curve remained normal, but with marginal spreads across maturity profiles. The yields on the 91-day and 182-day bills moved south from 14.0% and 16.0% as at the end of December, 2008 to 13.6% and 15.4% respectively by the end of May, 2009. The yields on the 1-year and 3-year notes dipped from 18.8% and 20.0% to 17.9% and 18.6% respectively during the same period. Inflation took an upturn in April and May, 2009; increasing consecutively to 14.3% and 14.7% respectively; prior to that inflation dipped from 16.0% in January, 2009 to 13.1% in March, 2009. We expect inflation to remain relatively high throughout the year compared to the same period in 2008. This could help keep interest rates steady at current levels throughout the year



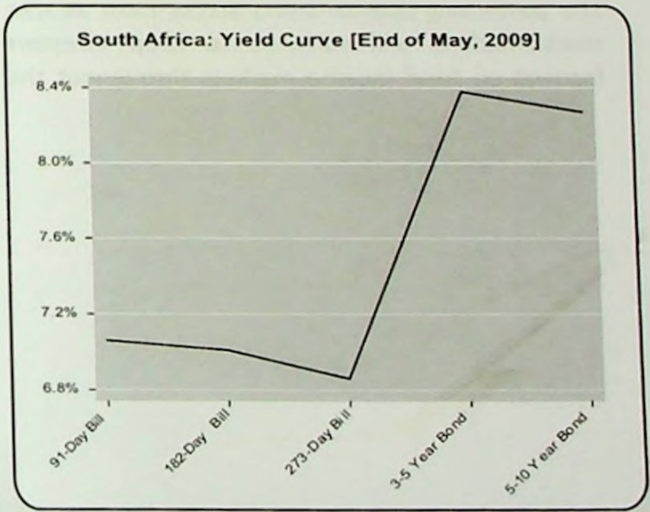
SOUTH AFRICA

Africa's largest economy is in a recession, and requires interest rate cuts to stimulate growth over the medium term. The Reserve Bank cut its policy rate by 100 basis points to 7.5% in May and further rate cuts are inevitable.

The yields quoted on the 91-day and the 182-day securities were 7.06% and 7.01% respectively (end of May 2009). On the capital market, the average quote on the 3-5 years bond and the 5-10 years bond for the same period were 8.4% and 8.3% respectively.

This indicates a marginal decline in interest rates in line with a cut in the repo rate during the period.

We anticipate that macroeconomic risk for South Africa will improve significantly over the medium term. This will be in line with the recovery of the global economy. Essentially, reductions in macroeconomic risk will give credence to further interest rate declines; and potentially result in lower interest rate risk exposure for long-term bond holders.



Fixed Income Market Outlook

Fixed income yields are likely to remain attractive across most African countries during the third and fourth quarters of 2009. A decline in fiscal revenue on the back of weak export demand and prices is likely to facilitate higher government borrowing and real interest rates. Improvement in domestic inflation, however, could serve to mitigate potential increases in nominal interest rates in countries such as South Africa, Malawi and Mauritius.

In our view, countries with high budget deficits are more susceptible to yield increases during the second half of the year than those with low fiscal deficits. We therefore anticipate interest rates declines in countries with improved fiscal space, especially South Africa. The decline in average inflation for 16 selected African countries from 12.2% in January, 2009 to 11.57% in April, 2009 is likely to facilitate further interest cuts, which will be aimed at reinforcing growth in a continent that depends largely on global commodity trade. Most central banks, including South Africa, Mauritius, and Nigeria reduced policy interest rates during the first half of the year to stimulate growth. But others such as Ghana kept interest rates steady in May, 2009 after an earlier increase in February over inflation concerns.

The continuing bearish trend across most African stock markets will continue to keep investors focused on fixed income markets throughout the year. The increase in equity market volatility since 2008 has worsened risk appetite for domestic investors, and we expect this trend to persist throughout the year. Africa stock markets have posted significant losses year-to-date, amidst some impressive gains by Egypt and Tunisia. The Ghana and BRVM stock exchanges have registered a year-to-date loss of 39.85% and 21.21% respectively in dollar terms- the highest declines recorded during the period. It is likely that the downturn will continue to persist for these countries during the year.

Currency risk exposure will remain a major threat to foreign investor participation in debt markets across most African countries. The strengthening of the Namibia, Botswana, Lesotho, and South African currencies against the US dollar is likely to give credence to foreign participation in those markets; but most countries are witnessing what can be termed a "free fall" of domestic currencies against major international currencies. Uganda and Ghana registered a local currency depreciation of 16.4% and 11.7% against the US dollar from the beginning of the year to June 15, 2009. Overall real returns in Africa have improved as domestic inflation nose dived towards policy targets. We expect real returns to further improve over the short to medium term as inflation in most African countries decline on global price dynamics.