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A Critical Review of the Challenges of Budgeting in New Agricultural Business Enterprises in Kano State

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Abstract
Budgeting involves a systematic business analysis and projection of an enterprise's activities in a manner that specific objectives to be achieved in a defined time frame subject to certain resources are clearly established. Established businesses tend to ride on existing data and experiences to plan the future. This paper focuses on how new entrants in the agricultural business would overcome the peculiar handicaps of dearth of historical data to enjoy the rich benefits of effective budgeting. Thus, the paper explore the context of new agricultural business enterprises to determine how far their peculiarities impact on the companies' budgeting processes. Guided by information from the review of relevant literature, the researchers analysed data from a survey of selected farm holdings in Kano; that is, those farmers that have been in business for not more than three years. The results show that farmers acknowledge the relevance of good budgeting for their business success, but they experience budgeting frustrations in the earlier years of operation, especially within the first three years, than in later years. When the business activities of these farmers are paired with budgetary information of more established firms, the researchers found that carefully selected market information of established competing firms can greatly enhance the budgeting success of new agribusinesses in Kano.
Keywords: Budgeting, Agribusiness, Enterprise Budgets, Budget Evaluation, Strategic Fit.

1.0 Introduction

Agriculture is an all for all business in Nigeria and in many countries of the world. From year to year there has been growing emphasis, albeit the eulogies of politicians in Nigeria, with a crescendo on the strategic relevance of a robust agricultural industry for the Nation (Atofarati & Monye, 2013). Notwithstanding this boisterous acclamation, a great proportion of the Nation's foods, feeds and raw material resources from agriculture are imported or smuggled into our markets (Manyong, Ikpi, Olayemi, Yusuf, & Idachaba, 2003); while the Nation's teaming youths languish for want of crested city jobs, and the expanse of arable land from North to South, East to West, lie forlorn for want of an enterprising transformation, an asset robbed of its blessed fortitude to feed and enrich generations untold. Many of those that are taking up the gauntlet and adventuring into exploring the richness of nature are fraught with many challenges.

The lot of the neophytes in the business is an admixture of benign hope fraught with frustrations. One of the more common challenges new farmers face is coming up with reliable numbers to use in their financial projections. Without a prior history of commercial production where do you get figures and how do you know whether they are trustworthy (Peabody, 2007). In recent years there has been an explosion of enterprise budgets available on the internet. Several of them come with spreadsheet templates that allow users to input their own numbers to get a customized enterprise budget for their situation. While the availability of these enterprise budgets is a good thing it is important to understand a little about the information they provide, to be aware of their limitations, and to be able to evaluate their usefulness to a particular situation (Arxis Technology Incorporation, 2013).

Successful agricultural business, as in any other businesses, requires effective planning and disciplined commitment to achieve desired goals and objectives (Manyong, Ikpi, Olayemi, Yusuf, & Idachaba, 2003). Planning for Agribusiness must acknowledge the environmental dynamics and competitive forces that impact on the industry (Wells, 2012). Agribusiness is affected by political and legal forces, economic and climatic conditions, sociocultural factors that alter the structure of demands for agricultural products, technological advances such as improves in seed technology, soil management, chemical versus organic processes (Nchuchuwe & Adejuwon, 2012). The FGN and other key stakeholders develop policies to stimulate agricultural production from year to year; obviously agriculture is a crucial part of the Governments transformation agenda (Atofarati & Monye, 2013).

Factoring all the variables into the business plan is by no means an easy task, especially for new venturers into the sector. There may be need for some prior orientation and consultation to learn the rubrics of

not just the skills of growing the crops or rearing the animals, but also gaining important financial knowledge and working with numbers. Budgeting is about numbers! It requires rational projections and estimates of future realities, which are hinged on theoretical postulates about how the present reflects the future (Castella & Hatch, 2011). A well-articulated budget constitutes the bases for decision making all through the budgeted period, guides the allocation of resources, acts as the reference point for accessing performance, and allows the firm to make revisions and relevant adjustments that would improve performance. Sustained profitable growth is a strategic objective of all businesses, and an agribusiness investor would aspire to match performance with the relative measure of risk assumed (CFO Research Services, 2011). The temptation here is to contract or consultant to prepare the budget; but for a startup small firm this would constitute an incremental cost with little positive value, since the farmer is highly unlikely to appreciate the composite statistics in the budget statement. Given the literacy level of the farmer, there is wisdom in making genuine effort to prepare the budget hands-on for the business.

Kano State is in the north-western part of Nigeria. And considered the most populous of all the Northern states (CityPopulations, 2015). Both subsistence and commercial agriculture are practiced in the State, with a dominance of produce grains, nuts and livestock farming. Although the State, like most of the northern areas of Nigeria, is highly susceptible to drought, long periods of dry season and low rainfall, irrigation farming is common, and both the Federal Government and State Government have invested substantially in the development of dams for agricultural purposes. Agribusiness is a highly thriving sector of the economy: major crops include grains such as sorghum, millet, wheat, rice, beans; pulses comprising many varieties of pepper, ginger, tomatoes; a large assortment vegetables, nuts, garden fruits, onions, and dates. Livestock include different species of cattle, donkeys, camels, ram/sheep, goats, birds and fish. Notwithstanding the teaming population of the State, much of the produce and livestock are shipped to the East, West and South parts of the country. There is also cross-border sales to Niger, Chad and other African Countries.

Investing in agribusiness in the State has a good potential for success. But assuring an enduring success requires an integrated strategic plan, creative focus, and responsiveness to the environmental and competitive forces. Budgeting attempt to tie up these variables defined in quantitative and financial terms. The main issues, as identified by Hunt (2006), with forecasting and budgeting process and systems need to be clearly expressed and diseminated to the operators to ensure appropriate ownership, support and commitment to realizing the expected goals, objectives and outcomes. These issues include cost and effort, frequency and timeliness of information, finance skills and morale, accuracy, flexibility, transparency and access to information, and accountability and ownerhip. The effective integration of these issues provide a synergy for intrinsic budgetary success. Where they are not properly handled, they can snowball into expensive forecasts and budgets that are cumbersome, costly, largely inaccurate and bereft of accountability.

A well-articulated budget is highly important to focus organisational efforts, ensure a strategic fit of corporate competencies and opportunities, and to mitigate the adverse impacts of internal weaknesses and environmental threats on the organisational survival. Effective budgeting thus enhances an enterprise's continuous survival and competitive relevance. This study is therefore informed by the need to inform and motivate start-ups in the agribusinesses in Kano to pay crucial attention to planning for their business. Forecasting and budgeting as an integral part of the business planning process is a tool for effective decision making and need not be seen as an intricate web of figures that have little practical sense. As might be apparent from this introductory section, the study would rely on relevant data obtained from available literature along with primary data from observations of behaviours and survey of famers in Kano to identify the prevalent challenges affecting budgeting in agribusinesses in Kano. Thus, the study is aimed at examining the challenges of budgeting in new agribusinesses in Kano State of Nigeria. The key question is to identify those impediments to budgeting and utilization of budgetary tools to guide operations of new agribusiness in the State and thereby proffer solutions to encourage effective financial planning and business success of start-ups in agricultural sector of the economy. The basic statistical tool adopted is the factor analysis of data obtained from the field survey survey.

2.0 Literature Review

2.1 Objectives of and Issues in Budgeting

A budget is an organised statement of projected costs, expected revenues, and net income for a firm to determine feasibility and profitability of present and forecasted activities with a determined time frame, usually a year (Warren, Fesse, & Reeve, 1996). Budgeting enables the farmer to plan the allocation of resources (capital, land labour, time, and materials), direct the flow of work and focus organisational efforts, control the utilisation of resources to ensure effective and efficient achievement of goals and desired outcomes. The details of the budget statement provide bases for performance measurements, review and realignment of efforts and resources to minimize disruptions to the mission of the organisation. Enterprise Thus, the enterprise budget ensure the appropriate use of limited resources to maximize returns, minimize losses, and optimize capacity (Chase, 2006). In addition, the farmer may wish to use the budgetary tool to test out novel ideas and make comparisons with

alternative uses to ensure optimality.

Beside the farmer, the budget statement can be used by other stakeholders to assess the business, provide appropriate guidance, or evaluate credit requests. Generally, the budget is used to itemize receipts for the enterprise, account for inputs and production practices, evaluate efficiency of the firm, estimate costs and benefits of significant changes in practices, provide basis for general strategic business plan, support credit request, and inform analyst and researcher of input/output requirements for projected outcomes. As pointed out by Greaser and Harper (1994), an agribusiness budget must be prepared with a particular objective in mind.

An agricultural firm may have separate budgets for each major crop or livestock and then a consolidated budget for the entire business. Essentially the budget will have three sections: the first part contain information about inputs or expenditures, the second indicates the outputs or revenues and the last part provide the net result and indicate whether surplus of income over expenditure and the return realisable for the activities during the period. Each crop (maize, corn, wheat) and each livestock (goats, sheep, cattle) represent a line of business and requires separate budget statement. The information provided by the budget will help the farmer to his financial needs, make pricing decisions, choose production patterns, and determine the product mix during the period (Greaser & Harper, 1994).

A number of human behaviours are implicit in the budgetary process; these factors need to be carefully resolved to ensure the usefulness of the budget. They include setting budget goals too tightly or loosely; and setting conflicting budget goals. The farmer also know which budgeting system would be appropriate for the enterprise. Budgetary systems may be continuous, zero-based, or computerised. The broad objective of the firm may be stated in the master budget, other component budgets would derive from this budget. The components include – sales budget, production budget, direct materials purchases budget, direct labour budget, factory overhead budget; operating expenses budget, cost of goods sold budget, budgeted income statement, cash budget, capital expenditure budget, budgeted balance sheet.

2.2 Development of Agriculture in Nigeria

Agricultural development in Nigeria has evolved through a long history bedeviled by many constraints which restricts the sector's growth and productivity. In discussing the issue, Philip, Nkonya, Pender and Oni (2009) examine the policy environment that affects agricultural productivity, how the policy environment affects productivity improvement, and propose lessons relevant for future research and policymaking to promote productivity and growth in Nigeria. (Philip & Nkonya, 2009)

2.3 Agricultural Policy in Nigeria

To attain agricultural sector goals, several policies were formulated and implemented during the years following independence. Some macroeconomic and sectoral policies implemented from 1970 to 1985 promoted economic distortions. For example, domestic prices and exchange rates were largely dictated by the government, generating large deviation between them and their market-determined equivalents. Appreciation of exchange rates cheapened imports, hurt exports, implicitly taxed farmers' incomes, and subsidized consumers. Government also directly participated in the provision of many farm inputs and services, and in the production, processing, and marketing of farm commodities. The need to correct the resulting distortions to the Nigerian led to adoption of the Structural Adjustment Programme (SAP) of 1986.

After SAP was introduced, there was general improvement in agricultural production and external trade from 1986 to 1989. Thereafter, growth indices of agricultural production fluctuated between stagnation and decline, a situation blamed mainly on three policy reversals and inconsistencies. First, the devaluation of the naira led to higher domestic prices of imported goods, including farm inputs (principally agrochemicals and fertilizers). Thus, some subsidies were retained on fertilizers, the benefit of which went unintentionally to large-scale farmers. Second, neither the interest-rate nor the exchange-rate liberalization was implemented to its logical conclusion. As a result agriculture could not sustainably derive the inflow of credit that it so badly needed. Third, the agricultural trade reforms were interrupted by import and export restrictions or outright bans or both. All of these factors limited long-term private-investment decisions in agriculture.

2.4 Presidential Initiatives on Selected Agricultural Commodities

Presidential initiatives emerged out of government concern that the agricultural sector had diminished capacity to provide the nation's food and industrial raw materials and to generate foreign exchange. Presidential initiatives were announced to encourage the production of cassava, rice, vegetable oil, tree crops, livestock, and aquaculture products. For example, the Presidential Initiative on Cassava (PIOC), introduced in 2002, aimed to move Nigeria from mere dominance in tuber production to a competitive edge in industrial production of starch, chips, and flour. The Presidential Initiative on Rice (PIOR) aimed for national self-sufficiency in rice production by 2005, food security, and the ability to export by 2007.

It is not clear how commodities under the presidential initiatives were selected. However, there are

apparent justifications for the commodities selected for presidential emphasis, especially in the cereals group. The three leading cereals in terms of production and area under cultivation are (in descending order) sorghum, millet, and maize. In Nigeria sorghum and millet are produced mainly for subsistence purposes. Significant importation is not required, especially if postharvest activities are efficient. Maize is still imported to some extent whenever its importation is not restricted. However, the amount of maize imported is much smaller than the amount of rice, perhaps justifying the national emphasis on the latter in the cereal group. Thus, it appears that part of the reason for the selection of the presidential initiative commodities was to preserve or earn foreign exchange by promoting increased production of import-substitute or exportable commodities, as well as to promote value addition (for example, for cassava).

Implementation of the various presidential commodity initiatives has suffered significant setbacks. For example, the Federal Department of Agriculture (FDA)/Federal Ministry of Agriculture and Rural Development (FMARD) cited (FDA/FMARD 2006) the following constraints to the implementation of the PIOC and PIOR:

Inadequate and untimely fund release by all tiers of government, the lack of funds to procure processing machinery and equipment, and the absence of state and local government implementation committees

For the PIOC especially, external trade constraints including the absence of storage warehouses for processed cassava products, absence of railway systems for large volume movement from inland locations to warehouses, and absence of designated and equipped ports for agricultural exports.

For the Presidential Initiative on Vegetable Oil Development (VODEP), aging and inefficient processing equipment, inability to install new processing equipment due to high offshore costs, high costs of production inputs and farm machinery, inability of local vegetable oil to compete with cheaper imported products, inadequate and untimely funding of the program, and delay in the certification of projects.

2.5 Constraints to Agricultural Productivity in Nigeria

Agriculture employs nearly three-quarters of Nigeria's work force, as is the case in most of sub-Saharan Africa (SSA). Agriculture is the principal source of food and livelihood in Nigeria, making it a critical component of programs that seek to reduce poverty and attain food security in Nigeria (Nchuchuwe F. F. & Adejuwo, 2012). Interest in changing agricultural productivity stems from the knowledge that income growth comes from productivity growth and savings-supported investment.

Agricultural productivity estimates for Nigeria showed a decline in productivity growth from the 1960s to the 1980s. Nigeria has witnessed strong economic growth in the past few years, averaging 8.8 percent real annual GDP growth from 2000 to 2007. However, the agriculture sector has lagged behind GDP growth, growing at 3.7 percent in 2007. Reviewing the production and postharvest constraints affecting agricultural productivity in Nigeria is an important step in formulating policies to reverse these trends in the future.

2.6 Sector wide Agricultural Productivity Constraints in Nigeria

Poor Agricultural Pricing Policies Fertilizer use is promoted mainly by the fertilizer subsidy policy in Nigeria. In spite of economic reforms in Nigeria, fertilizer subsidies have remained.

There is renewed consideration of input subsidies, at least as a means to reduce attendant effects of market failures. Input subsidies were widely practiced in the 1960s through 1980s. The costs of subsidies became high and unsustainable. Thus, subsidies have placed a high budgetary burden on the government in Nigeria. Also, the program has been targeted to those who may not need it the most, mainly large-scale farmers. Investments in core public benefits such as research and extension, which also aim to boost productivity, may suffer setbacks under sustained and high-input subsidy programs. However, there are no immediate data from which to draw a firm inference on this assertion for Nigeria. Most subsidies in Nigeria were expected to give way as reforms were embraced in the mid-1980s. However, elements of fertilizer subsidy have persisted within the Nigerian agricultural economy. Indeed, the National Council on Agriculture (NCA), pronounced a 25 percent fertilizer subsidy for the 2008 production season. How effectively this subsidy was implemented is unclear.

Low Fertilizer Use Improved crop varieties exist, but realization of yield potential requires a leap in the level of fertilizer use. As elsewhere in SSA, low fertilizer use is a serious constraint to agricultural productivity growth in Nigeria, where fertilizer use averages 10–15 kg/ha. Between the late 1980s and mid-1990s, domestic fertilizer production as a percentage of the total supply varied from 46 to 60 percent. There has been no domestic production of fertilizers since the early 2000s because NAFCON, the dominant fertilizer producer in Nigeria, has been shut down.

Some issues affecting domestic supply of fertilizers include high transport costs from port to inland destinations, poor distribution infrastructure, absence of capital for private-sector participation in distribution, significant business risks facing fertilizer importers, and inconsistencies in government policies.

Poverty and Women's Limited Access to Inputs For farmers, poverty can result in food insecurity, low productivity, and inability to afford yield-enhancing inputs. Women have relatively limited rights to farmland in spite of having a significant role in agricultural production in many parts of Nigeria. Women also have less

access to extension services and credit. All these constraints limit their agricultural productivity.
In some areas in Nigeria, on-farm activities are left to women. In other places, women engage mainly in cooking and caring for children. To better appreciate women's roles and to estimate their farm labor productivity, diverse roles must be accounted for. Failure to do so may underestimate women's agricultural labor productivity.
Low Access to Agricultural Credit Access to agricultural credit has been positively linked to agricultural productivity in several studies. Yet this vital input has eluded smallholder farmers in Nigeria. Cooperatives, friends, and family members dominate the sources of farm credit among the rural farmers surveyed in southwest Nigeria.
Banks with large loan funds are generally difficult to access. Issues of collateral and high interest rates screen out most rural smallholders. Another problem associated with smallholder access to agricultural credit is that agricultural loans are often short term, with fixed repayment periods; this may not suit annual cropping, especially when loan release is not coordinated with growing cycles of crops. Short-term loans are also unsuitable for livestock production. For credit to be most effective, loan terms must flexibly relate to cash flows in the target business, the input demand/supply structure, and quantifiable business risks.
Low and Unstable Investment in Agricultural Research Private-sector involvement in agricultural research has remained negligible to date. Low public expenditure on agricultural research has been associated with low growth in agricultural productivity elsewhere. Conversely, such investment can help explain eventual agricultural productivity growth.

When research is poorly funded, agricultural technologies cannot be improved, and there will be no downstream farm income increase, rural employment generation, reduction in food prices, establishment of agro based industries, and economic growth. In short, the absence of new technologies in agriculture will slow the growth of agricultural productivity and the reduction of rural poverty.

Total public research and development (R&D) spending has not been stable since independence. It is believed, however, that the situation has improved since 2000 because of an increase in the salary structure and improvement in the nominal contribution of government to agricultural research. The budget process for agricultural research funding in Nigeria is neither simple nor wholly transparent. The time between submission of planned budgets by research agencies and approval and release of funds is long and often out of sync with research work plans. Also, approved amounts and disbursement processes by government often fall far short of research agencies' planned budgets. Indeed, since the late 1990s, higher education and research agencies have been receiving both recurrent and capital budgets on a monthly basis, leaving virtually no space for long-term research investment. Apart from making research planning impossible, this has tended to delay or prolong the completion of laboratory-based graduate programs because neither the faculties nor the students have access to adequate and sustained research funds.
Poor Funding and Coordination of Agricultural Extension Specific constraints identified in the implementation of the training and visit (T&V) system in Nigeria included bureaucratic procedures, and location of crop and livestock extension staff in different departments and ministries, which tended to promote rivalry and duplication of resources. Related to these issues was the fact that the extension system was implemented with a huge bias in favor of cropping activities.

In 1992, the NCA approved the adoption of a Unified Agricultural Extension System (UAES) to ensure a single line of command and delivery of unified extension messages to farmers. The implementation of this laudable extension system remains hampered by poor funding, as most of the state Agricultural Development Projects (ADPs) stopped functioning after the cessation of World Bank funding. There is some evidence that previous funding of agricultural extension activities had beneficial spillover effects on adoption of farm technologies. Available estimates of adoption rates appear to be satisfactory for a wide array of farm technologies, even after the implementation years of the ADP system. Indeed, adoption may have been constrained more by the inability to purchase improved inputs than by factors related to the extension system itself.
Land Tenure System and Land Degradation The communal system of land ownership prevails among most ethnic groups in the south, in which individual ownership of land is embedded in group or kinship ownership. Communal ownership of land in Nigeria has been associated with such problems as limited tenure security, restrictions on farmers' mobility, and the inevitable fragmentation of holdings among future heirs. In addition, group ownership restricts access rights of community members outside the owning group, a situation that limits the use of land as collateral for agricultural credit. But communal ownership has also been credited with preserving traditional land use practices such as bush fallowing, which has helped retard problems of land degradation.

Restrictions on land sales impede the use of land as collateral, thereby hindering development of the rural credit market. Communal land ownership is a disincentive to the improvement of land quality and long-term investment in land management. Inheritance leads to land fragmentation among future heirs, and subsequent uneconomic farm sizes per member.

Subdivision of holdings among household members prevails as a consequence of the inheritance system. But the size of farms per capita depends ultimately on population pressure, the amount of land available to each household, and the specifics of the inheritance law in each community. An important institutional constraint is absence of clear title to land. This may limit access to formal credit since the farmer cannot use land as collateral. It also reduces incentives to invest in land-quality maintenance and improvement. Because poor farmers cannot afford alternative farmlands, or have no access to lands not inherited, they remain on depleted lands and further degrade resources. Thus, poverty and custom may constrain farmers' ability and willingness to mitigate land degradation, leading to declining productivity.

Poor Market Access and Marketing Efficiency Limited or poor-quality roads and rail transportation inhibit timely access to inputs, increase costs of inputs, and decrease access to output markets. Thus, investment in infrastructure contributes to agricultural productivity. The bulky nature of primary produce has discouraged production because rural farmers have limited access to markets and good feeder roads. Economic reforms in Nigeria have led to increased private-sector participation in the supply of most purchased inputs in Nigeria, but most suppliers are based in urban areas. End users of the inputs are in rural areas, which are poorly linked to urban suppliers. Transaction costs of inputs increase delivery costs to rural farmers. However, given the prevailing poor marketing infrastructure and the attendant high transaction costs, fertilizer subsidies in Nigeria may not be effective at this time.

Agricultural marketing efficiency in Nigeria is dismally low. Transportation costs are high. Road conditions are poor, which limits access to purchased inputs, credit, and output markets, and reduces the transmission of market signals. Increased access to output markets would likely generate demand for conventional inputs. High transport costs are significant constraints to agricultural productivity, reflecting the poor state of rural transport infrastructure in the study areas

2.7 Commodity Based Impediments

Cassava Constraints Several production and post-harvest constraints have limited cassava's contribution to agricultural growth overall. A total of 17 cassava varieties have been released in Nigeria (FDA/FMARD 2005). Most of the varieties released have multiplication problems. Outgrowers are often denied good prices for cassava tubers at the end of the growing season, which discourages cultivation. And while some of the varieties are high yielding, they score low on other parameters such as early maturity or resistance to drought, pests, and disease.

On-farm costs of cassava production are still very high at the small-scale level in Nigeria. It is estimated that the cost of managing 1 ha of cassava farm from land preparation to harvesting is about N70,000, if all recommended practices and input levels are followed.This translates into about US$5831 per ha. Agrochemicals are important in cassava production for the control of cassava mosaic virus, bacterial blights, and anthracnose, among other diseases. But agrochemicals often must be imported, and at a prohibitive cost. As a result, fertilizers and insecticides are rarely applied to recommended levels. Because cassava is known to respond to a lower application of fertilizers than crops such as maize and rice, farmers are more likely to allocate their limited budgets for costly fertilizers away from cassava and toward more fertilizer-intensive crops. The major variable costs are cassava cuttings and herbicides.

Cassava processors face a number of challenges. Medium- to large-scale processors face problems such as inadequate equipment and fabricators. All processors must routinely deal with unstable market conditions, unstable government trade policies, and difficulty sustaining the supply of cassava.

Maize Constraints Year-round grain availability is low in Nigeria owing to a combination of low productivity and high post-harvest losses. Efforts to increase maize production through maize seed multiplication are channeled through an out grower scheme being implemented by state and local extension units, the Agriculture Development Projects (ADPs). The ADPs often assist the out growers by providing fertilizers and other production inputs. However, this scheme is constantly threatened by fertilizer shortages and lack of protection for the out growers. Fertilizers claim the largest share of maize production costs; this is not surprising given the core role of fertilizers in the yield enhancement of improved varieties of maize.

Increasing the availability of food requires much more than just increasing on-farm production. There must be concerted effort to improve processing, storage, and distribution of maize. Most of the maize processing in Nigeria is still carried out at the cottage level by individual small-scale processors and their cooperative societies. The National Agricultural Research Institutes (NARIs) have made considerable progress in the development of agro processing equipment. But progress toward commercialization and multiplication has been slow. The NARIs have no explicit mandate to multiply or commercialize the machines and equipment they develop. The small and medium enterprises (SMEs) that are expected to fulfill these roles are themselves constrained by poor awareness about the existing on shelf technologies, poor capital base, and low capacity to compete with foreign (imported) substitutes.

Formal credit still eludes many traders who engage in maize storage. Storage is funded either by the traders themselves or, to some extent, by the cooperatives they belong to. The lack of adequate funding for

storage activities leads to short-duration maize storage. An estimated 10 percent of the total production of grains are lost or wasted annually through poor storage or lack of storage. The cost per ton2 of stored grains has been found to decline with quantity stored. But liquidity constraints may limit traders' ability to achieve the full benefit of scale economies. Because farm-level grain storage may not deliver the benefits of large-scale storage, the government has put in place large storage structures in various parts of the country. Lack of funding has slowed completion of silos and limited the full use of completed ones. Also, farmers have no direct access to government silos.

3.0 Results and Discussion

3.1 The Enterprise Budget

An enterprise budget is a detailed accounting of revenues and expenses related to a profit center within a business (Drury, 2000). Enterprise budgets are important tools in determining profitability of individual ventures. If a farm is producing free-range poultry, Date palms, and soy beans they have four separate enterprises which should have separate budgets. In this way the owners can determine which of these enterprises are most profitable and which, if any, are not profitable. The farmer may decide after reviewing these budgets to let go of one or more of the enterprises and focus more time and resources on the more profitable ventures. The point is that the budgets provide information that can be a good decision-making tool.

Generally, enterprise budgets include all the possible sources of revenue (e.g. things that will be sold) and all of the associated costs, both fixed and variable. Some budgets are more detailed than others but it is the quality and accuracy of the numbers rather than the design of the budget that is most important. Look for enterprise budgets that list the quantities of things sold and used, the prices and costs per pound change, the quantities sold and used are very important.

3.2 Evaluating an Enterprise Budget.

Given the number of enterprise budgets readily available on the internet, how can a farmer determine which one is the 'best' one to use as a starter budget for his own operation? As an author (Chase, Using Enterprise Budgets to Make Decisions, 2006) explain, there are several things to look for that are common to the best sample budgets, along with the question whether the author and contact information is clearly identified, and other issues discussed below.

Most reputable enterprise budgets are developed by academic researchers working with farmers or at agricultural organizations. It is important that the authors be identified and that contact information be provided because there are times when the farmer might need to contact them with a specific question. Are the assumptions clearly outlined? Every budget is developed with a set of operating assumptions in mind (Drury, 2000). Without reviewing these assumptions it will not be possible to know whether this budget was developed under conditions similar to that of the farmer concerned.

Are there notes and instructions attached? It is the notes and instructions (in addition to the assumptions) that will help the farmer tailor the budget to own situation. If the notes are missing or unclear the user will not end up with results that can be easily explained. Is the enterprise conducted in a growing environment similar to the farmer's? If there is a budget for growing cabbages that was developed in Jos and the farmer live in the north north of Nigeria, there would be need to effect some adjustments. All other things being equal, the budget developed closest to the farmer's growing conditions will yield the best results.

When was the budget prepared? While an older budget may still be a useful tool, it is important to seek out the most recent budget(s) that one can find (College of Agricultural Sciences, Penn State University, 1994). Both revenues and costs tend to change over time but not necessarily at the same rates so you should not try to adjust an older budget by just increasing every line by the same factor.

3.3 Customizing an Enterprise Budget

However closely an enterprise budget matches a farmer's situation there are still likely to be some changes necessary before the budget really fits. The first thing a farmer should do is evaluate the budget in terms of the criteria listed in the previous section. Make note of potential problem areas such as, "the budget was done for a different growing season", "the budget is 10 years old", "the certainty of where the original numbers came from". It is only when these exercises have been completed that one will need to determine whether the budget is worth adjusting; given that the goal is to end the process with numbers that one has confidence in and can defend to others.

Once it is decided that the budget is worth modifying, the farmer should do a line-by-line assessment of the budget. If some of the assumptions are not true for the particular situation they should be changed first. It is highly pertinent to pay particular attention to the primary sources of revenue and the expenses that are the largest (Nchuchuwe F. F. & Adejuwo, 2012). The farmer need to spend time on the largest items in all categories first since that is where any errors will be most significant to the bottom line. Check the line items in the variable

expenses against your other financial statements or against the budgets of similar businesses just to be sure that all major expense categories are covered.

Finally, go line by line through the budget looking over the numbers and make any adjustments that will bring the budget into alignment with the present situation. Even after all this there is a strategic necessity to monitor the budget carefully the first year and continue to make adjustments as farmer gain experience and new things or information about business evolve. Using enterprise budgets is a smart idea in the development of a business plan. There are many existing budgets for a variety of enterprises and it is likely that you will find budgets that could provide you a good place to start. You should never however just drop an enterprise budget into your business plan without making a careful assessment of how accurately the budget suits your situation.

3.4 Sources of Enterprise Budgetary Data

Several avenues for information on enterprise budgets are available both within and outside the country. There are specialized institutions and Universities that focus on agricultural developments in Nigeria, but virtually all the Federal Universities have faculties and departments of agriculture and management sciences that can guide famers in developing effective budgetary systems for their enterprise. A few of the outside sources identified as standard by different authors (Peabody, 2007) are listed below.

University of Wisconsin Center for Integrated Agricultural Systems offers enterprise budgets in poultry, dairy goats, dairy sheep, and specialty foods. The budgets feature spreadsheet templates allowing the user to customize the budgets for individual situations. Go to http://www.cias.wisc.eduand follow the Farm Finance links.

The University of Georgia Cooperative Extension Service offers interactive enterprise budgets for many common crops and livestock.

Oregon Agricultural Enterprise Budgets at http://oregonstate.edu/dept/EconInfo/ent_budget/ . This site is intended to be a resource for the dissemination of Enterprise Budget Sheets and additional agriculture-related materials. Enterprise Budget Sheets are available in both .pdf and downloadable spreadsheet formats.

Iowa State University Sustainable Ag Extension Program at http://extension.agron.iastate.edu/sustag/enterprisebudgets/ offers budgets in the following categories: vegetables, field crops, aquaculture, forestry, fruits and berries and livestock.

Rutgers Cooperative Extension offers a large selection of enterprise budgets for Organic, Conventional and Integrated Crop Management systems at: http://aesop.rutgers.edu/%7 Efarmmgmt/ne-budgets/nebudgets.html

North Carolina State University at http://www.agecon.ncsu.edu/AgBudgets/vegetable.htm offers budgets for 22 different vegetable crops under different production situations.

Penn State Cooperative Extension, through the Agricultural Alternatives program offers enterprise budgets in for many crops and livestock at http://agalternatives.aers.psu.edu/crops/Crops.html and http://agalternatives.aers.psu.edu/livestock/Livestock.html. Several of these budgets are appropriate for small scale producers.

South Dakota State University offers a budget to help producers calculate the costs of producing goats for the meat goat market at http://econ.sdstate.edu/Extension/otherlinks.htmPrepared by Mary L. Peabody, University of Vermont Extension (Mary.Peabody@uvm.edu). This project was supported by the Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers Competitive Grants Program of the Cooperative State Research, Education and Extension Service, USDA, Grant # 2005-51200-02299. November 2007.

4.0 Conclusion and Recommendations

As discussed in the preceding sections, many challenges confront farmers in Nigeria, but one effective too for mitigating the negative impacts of these impediments is adopting of an effective budgeting process. The three main phases involved in the budgeting process include the development of a strategic mind-set, sourcing of appropriate data and the development of a budget frame (Drury, 2000). Eventual success of the enterprise budget require firm focus, objective analysis and implementation, and continuous monitoring, review and evaluation of performance.

Agribusiness in all its ramifications is an economic catalyst and has significant benefits the individual and commercial farmer, the government, the community and people in every tribe and tongue (Adesina, 2012). It is a source of sustained employment and subsistence to household, wealth accumulated through agribusinesses can be bequeathed to posterity, efficient agricultural practices provides high standards of living, and agriculture has continued to contribute significantly to gross domestic products. Health issues and a number of other social problems could be resolved with relevant food security. Improved agricultural business provides alternative foreign earnings and could be potential factor contributing to strengthening value of the naira against other major currencies. It is therefore encouraging for the industry to become once again attractive to all levels of investors and especially the teaming youths, the strength of the nation. Clarifying business related issues such forecasting, budgeting and business planning of agribusiness is a measure of motivation for refocusing interest in this sector of the economy.

This study has attempted do just that: shedding light and demonstrating that the nascent enterprising farmer can do it himself. A good agricultural enterprise budget need not be highly intricate, prepared by a professional consultant, and laden with complex analysis. The templates provided at the next section are sample budget formats that incorporate the relevant aspects of a typical agribusiness. It require only a little disciplined effort and basic financial and business acumen to complete and utilize. A farmer that combines his practical agrarian skills with some expressed knowledge of finance has more potential for attracting credit supports, extension services and other perks that would enhance success in the industry.

The following seven key suggestions by Arxis Consulting (2015) are nuggets that would strengthen the farmer's confidence towards developing reliable enterprise budgets. One, budget and report beyond the general ledger. Two, make it user friendly. Three, satisfy data needs with dashboards and custom reports. Four, incorporate flexible financial modelling. Five, react quickly to change. Six, improve collaboration. Seven, access the cloud, internet base facilities effective guidance.Two framework for enterprise budgets extracted from College of Agricultural Sciences, Penn State University, 1994 work are presented below.

4.1 Crop Enterprise Budget Template

Conventional corn grain production.

Summary of estimated costs and returns per acre.

Item	Quantity	Unit	Price	Total	Estimate	Receipts
Corn						
Other						
Total receipt						
Variable costs						
Custom lime application						
Fertilizer						
Nitrogen						
P2O5						
K2O						
Herbicides						
Insecticides						
Soil test						
Corn seed						
Labor						
Tractor						
Self-propelled equipment						
Additional labor						
Fuel						
Tractors						
Self-propelled equipment						
Drying						
Repairs and maintenance						
Tractors						
Self-propelled equipment						
Implements						
Interest on operating capita						
Total variable costs						
Fixed costs						
Tractors acre						
Self-propelled equipment acre						
Implements acre						
Land charge acre						
Total fixed costs						
Total costs						
Returns						
Returns over variable costs						
Net returns						

4.2 Livestock Budget Format

Dairy heifers—large breeds, birth to freshening (24 months).
Fed corn silage and hay for six months and pasture for six months.

Item	Quantity	Unit	Price	Total	Estimate	Receipts
Receipts						
Bred heifers						
Other						
Total receipt						
Variable costs						
Winter Feeding						
Grains						
Hay Equivalent						
Corn Silage						
Milk Replacer						
Sumer Feeling						
Grain Cost						
Pasture						
Other Variable Costs						
Vet & Medicine						
Breeding						
Utilities						
Bedding						
Miscellaneous						
Interest on Loans						
Cost of Calf						
Total variable costs						
Fixed costs						
Salaried Labour						
Equipment						
Building						
Management						
Total fixed costs						
Total costs						
Returns						
Returns over variable costs						
Net returns						

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