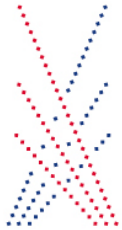

BRITISH ACADEMY
OF MANAGEMENT

BAM
CONFERENCE

3RD-5TH SEPTEMBER
ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM

This paper is from the BAM2019 Conference Proceedings

About BAM

The British Academy of Management (BAM) is the leading authority on the academic field of management in the UK, supporting and representing the community of scholars and engaging with international peers.

http://www.bam.ac.uk/

Monetary Policy Changes and the Performance of Listed Manufacturing Firms in Nigeria

Ahmed Modu Kumshe[1], Bukar Zanna Waziri[2] and Ijeoma Ogochukwu Anaso[3]
[1, 2 and 3]Department of Accounting, University of Maiduguri, P.M.B.1069, Borno State, Nigeria.

1. Introduction

1.1. The Nigerian Economy

Nigeria is popularly known as an oil rich country. Prior to the discovery of petroleum resources in Nigeria, the non-oil sectors had a significant impact on the economy. The non-oil sectors can be categorised into manufacturing, services and tourism. The manufacturing sector can be further classified into chemicals, electronics, foods and beverages, steel, wood, and so on. However, the contribution of the manufacturing sector to Nigeria's Gross Domestic Product (GDP) been reduced considerably after the discovery of the oil and gas production. Nigeria is the largest economy and population in Africa, and is bordered by Cameroon, Niger, T'Chad and Benin Republic. However, the country's over dependence on the oil and gas sector has crippled the revenue earning potential of the other sectors of the economy (Ibrahim, 2008; Anthonsen et. al, 2012). Budina and Wijnbergen (2008) argued that oil revenue dependent countries (such as Nigeria) are characterised by slow economic growth, de-industrialization, and declining productivity. To combat this, the Nigerian government has made significant efforts to take advantage of these opportunities by reviving the manufacturing sector and industrialising the economy.

Prior to the neglect of the Nigerian manufacturing, the sector relied largely on foreign direct investment (FDI) in the form of modern equipment, skilled labour and capital inflows (Ku, Mustapha and Goh, 2010). FDI has demonstrated significant influence on foreign exchange earnings, managerial abilities and overall economic development of developing and resource dependent nations such as Nigeria (Chenery & Bruno, 1962; Aliyu, 2005; Donwa, Mgbame & Ezeani, 2015). Both the World Bank (2014) and the United Nations Conference on Trade and Development (2015) are of the opinion that Nigeria has enormous resources and large market size that can propel industrialisation.

Some of the institutional and macroeconomic policy reforms of the Nigerian government, targeted at reviving the neglected manufacturing sector, have spanned different political regimes from as far back as the 1960s. The country had an era of fixed medium-term planning

(1962 – 1985) within which there was the First National Development Plan (NDP) (1962 – 1968); the Second NDP (1970 – 1974); Third NDP (1975 – 1980) and Fourth NDP (1981 – 1985). This was closely followed by the era of the rolling plan (1990 – 1998) which had three phases: The First National Rolling Plan (1990 – 1992); the Second National Rolling Plan (1993 – 1995) and the Third National Rolling Plan (1996 – 1998). There were also numerous other programmes such as the Structural Adjustment Programme (SAP) (1986). The recent ones are the Vision 20:2020 (2009), National Integrated Infrastructure Master plan (2014 – 2043) and the Transformation Agenda (2011 – 2015) (Ibietan, & Ekhosuehi, 2013).

Despite these efforts, the economy nosedived into economic recession in the first quarter of 2015. The economic downturn had consequences in the manufacturing sector: such as low level of technical know-how and technology to process raw-materials to finished or semi-finished goods, in-accessible to credit facilities and unfavourable operating environment. This has in turn resulted to unbearable operating costs and losses, thus affecting business growth and development. To pull the country out of the recession, the government launched yet another economic plan referred as economic recovery and growth plan for the period 2017-2020. This plan together with changes in monetary and fiscal polies initiated by the Central Bank of Nigeria (CBN) are specifically targeted at restoring economic development, generating employment and reducing inflation.

Monetary policies are generally used by the apex bank of a country (CBN) to manage the impact of cost of finance on inflation and interest rate to ensure stability in gross domestic product, price and currency value. Monetary policy can be applied in two ways; either as expansionary or contractionary instruments. The former is used to stimulate economic activities in a period of economic contractions especially when there is rise in commodity prices and unemployment rate. Thus, the monetary authority lowers the interest rate and increases liquidity to incentivise business units to expand their investment portfolios, production capacity and employ additional manpower. This in turn intensifies demand and leads to income generation to the various economic agents. On the other hand, contractionary policy instruments are used deflate the economy especially when there is excess liquidity in circulation. Therefore, monetary policy plays a vital role in determining the operations and financial performance of manufacturing companies in a country especially in taking financing and investment decisions.

1.2. The Performance of Listed Manufacturing Companies in Nigerian

There are several studies that had investigated the performance of the manufacturing firms in Nigeria over the years (see Chete & Adenikinju, 1989; Ganley & Salmon 1997; Yaqub 2010; Imoughele & Ismaila 2015; Evans & Saibu 2017; among others). For instance, Chete and Adenikinju (1989) established that the performance of the sector is abysmal resulting from the companies' low productivity and profitability. Similarly, Adenikinju and Alaba (2002) evaluated the Nigerian manufacturing sector with emphasis on productivity, performance and energy consumption using the aggregate model. Most of the manufacturing companies selected in the study recorded low performance in terms of productivity.

Bigsten and Soderbom (2005) established that inadequate physical infrastructure, stiff competition and inappropriate technology are the key impediments to the development of the manufacturing firms in Nigeria. In a related study, Okejiri (2003) and Ku, Mustapha and Goh (2010) concluded that paucity of funds, obsolete manufacturing equipment and instability in macroeconomic policies also played a role in crippling the sector. Similarly, the significant influence of the oil and gas sector in the economy, weak infrastructure, corruption, political instability, policy inconsistencies, amongst others, had hindered the growth of local industries (Obadina, 1999; Onayemi, 2003). Other factors such as cost of borrowings, and fluctuations in foreign exchange due to volatility in oil price have affected manufacturing companies in Nigeria (Mazumdar and Mazaheri, 2005; Adeniju and Chete, 2010). Thus, the CBN's macroeconomic and monetary restrictions policies on imported goods, tariffs and foreign exchange restrictions may have affected operations of the manufacturing companies. This may have impacted negatively on the companies' access to liquidity, cost of production, low capacity utilisation. This suggest that macroeconomic variables such as money supply, exchange rate, inflation, and interest rate have considerable influence on the performance of firms.

Monetary policy operates through its proximate effect on the short-term interest rate and the interest rate structure Borio, Gambacorta, & Hofmann (2015). In Nigeria, the instruments of monetary policy are open market operations, discount window operation, reserve requirements and moral suasion. The operational targets of the policy instruments are the interest rate, banks reserves and currency in circulation (Central Bank of Nigeria, 2016). It is expected that a change in policy will precede the desired effect or ultimate target of price stability, output

growth and balance of payments. Borio, Gambacorta and Hofmann (2015) observed that the link between monetary policy and bank profitability is an under-researched area.

Money supply, the sum of all money or monetary assets that can easily be converted to cash, if consistently greater than interest rates, leads to inflation. The CBN juggles these instruments to create an environment in which businesses are confident to operate and meet their objectives (Usman & Adejare, 2014). Gertler and Gilchrist (1994) examined movement in sales, inventories and short-term debts for small and large manufacturing firms and confirm that the effects of monetary policy changes on small-firm variables are greater when the sector as a whole is growing more slowly.

Issah and Antwi (2017) were of the opinion that the Return on Asset (ROA) of a firm is a function of a fundamental business-performance level and government economic policy (measured by macro-economic indicators). They examined the linkage and causal relation between macroeconomic variables and firm performance by investigating the impact of macroeconomic factors on firm performance in the United Kingdom. The authors further argued that government's general management (or mismanagement) of the economy affect demand for firm goods and services in any particular year, this subsequently determines the return on assets.

Based on these arguments, this study proposes the following hypotheses:

Ho_1: Money supply has no significant effect on the return on assets of manufacturing firms in Nigeria.

Ho_2: Inflation rate has no significant effect on return on assets of manufacturing firms in Nigeria.

Ho_3: The exchange rate has no significant impact on return on assets of manufacturing firms in Nigeria.

1.3. Theoretical Framework

The study uses the post Keynesian theory, a contemporary version of Keynesian school of economic thought. The theory was developed by a group of economists in Cambridge who attempted to extend Keynes economic ideas and philosophy around the 1980s. The theory is built on the foundation that money is the life-blood of any production economy; money supply in an economy is endogenous; the level of money supply is primarily determined by the activities of commercial banks in response to the demand for credits by economic units (Nayan,

Kadir, Yusof & Ali, 2015). The money supply endogeneity is based on four hypotheses – horizontalism (loans create deposits, so deposits are endogenously determined, and changes in the money supply are a result of, and not a cause of, changes in money income and vary in relation to prices and output (Kaldor, 1982; Moore, 1988)); structuralism (the central bank is a significant player and has the privilege to deny accommodation of reserve needs and consequently resist credit expansion (Panagopoulos & Spiliotis, 2008)); liquidity preference (the causal relationship between bank credit and monetary aggregates is bidirectional – the bank credit – money aggregate causality is based on the assumption that money is endogenously determined; and the money aggregate – bank credit causality is based on the theory of an effective amount of deposits held (Panagopoulos & Spiliotis, 2008)); and Circuit Theory of money (firms successive outlays for productive factors and receipts from sales; and the resulting formation and cancellation of money incomes (Gnos & Rochon, 2003)).

2. Methodology

The study will use the panel data regression to analyse the secondary data collected on all the variables for the period 1999-2017. Thus, data on the dependent variables, operating profit, production costs and return on assets will be collected from the annual reports of the manufacturing firms. While for the independent variables namely money supply, foreign exchange and interest rate will be collected from central bank of Nigeria Statistical bulletins.

The three stated hypotheses will be tested using panel data multiple regression models. The functional form of the models is written below.

$ROA = a + b_1CMS_1 + \varepsilon t$……(i)

Where: ROA = Return on Assets; a = Constant; B_1 = Coefficient of the Independent Variable; X_1 = Changes in money supply and εt = Error Term

$ROA = a + b_1EXR_1 + \varepsilon t$……(ii)

Where: ROA = Return on Assets; a = Constant; B_1 = Coefficient of the Independent Variable; X_1 = Changes in foreign exchange rate and εt = Error Term

$ROA = a + b_1IRS_1 + \varepsilon t$……(iii)

Where: ROA = Return on Assets; a = Constant; B_1 = Coefficient of the Independent Variable; X_1 = Changes in interest rates and εt = Error Term

References

Adenikinju, AF, & Chete, LN 2002, 'Productivity, market structure and trade liberalization in Nigeria', *African economic research consortium research paper 126*, pp. 1-46

Aliyu, MS, 2015, 'Impact of foreign direct investment (FDI) on economic growth in Nigeria', *Abuja journal of business and management*, vol. 1, no. 2, pp. 44-54.

Alos, AJ, 2000, 'Creating value under uncertainty: the Nigerian experience', *Journal of African business*, vol. 1, no. 1, pp. 9-24.

Anthonsen, M, Löfgren, A, Nilsson, K, & Westerlund, J, 2012, 'Effects of rent dependency on quality of government', *Economics of governance*, vol. 13, no.2, pp.145-168.

Bernanke, BS, Boivin, J, & Eliasz, P, 2005, 'Measuring the effects of monetary policy: a factor-augmented vector autoregressive (FAVAR) approach', *The quarterly journal of economics*, vol. 120, no. 1, pp. 387-422.

Bigsten, A, & Soderbom, M, 2005, 'What have we learned from a decade of manufacturing enterprise surveys in Africa?', *The World Bank policy research paper 3798*, pp. 1-42

Borio, C, Gambacorta, L, & Hofmann, B, 2015, 'The influence of monetary policy on bank profitability', *Bank for International Settlements Working Paper No. 514*, pp. 1-34.

Budina, N, & van Wijnbergen, S, 2008, 'Managing oil revenue volatility in Nigeria: The role of fiscal policy', *Africa at a turning point? Growth, aid and external shocks*. pp. 427-459.

Central Bank of Nigeria, 2016, 'Monetary Policy', *Education in economics series*, No.2, pp. 1-28

Chenery, HB, & Bruno, M, 1962, 'Development alternatives in an open economy: the case of Israel', *The economic journal*, vol. 72, no. 285, pp. 79-103.

Donwa, PA, Mgbame, CO, & Ezeani, BO, 2015, 'Foreign direct investment flows into oil and gas sector in Nigeria', *International journal of multidisciplinary research and development*, vol. 2, no. 8, pp. 287-295.

Eichner, AS & Kragel, JA, 1975, 'An essay on post-Keynesian theory: a new paradigm in economics, *Journal of economic literature*, vol. 13, no. 4, pp. 1293-1314.

Evans, O, & Saibu, O, 2017, 'Quantifying the impact of monetary and exchange rate policies on economic diversification in Nigeria', *Nigerian Journal of Economic and Social Studies*, vol. 59, no.1, pp. 131-152.

Ganley, J, & Salmon, C, 1997, The industrial impact of monetary policy shocks: some stylised facts. *Bank of England Quarterly Bulletin*, pp. 1-35

Gertler, M, & Gilchrist, S, 1994. 'Monetary policy, business cycles, and the behaviour of small manufacturing firms', *The Quarterly Journal of Economics*, vol. 109, no. 2, pp. 309-340.

Gnos, C & Rochon, L-P, 2003, 'Joan Robinson and Keynes: finance, relative prices and the money circuit, *Review of political economy*, vol. 15, no. 4, pp. 483-491.

Ibietan, J, & Ekhosuehi, O, 2013, 'Trends in development planning in Nigeria: 1962 to 2012' *Journal of sustainable development in Africa*, vol. 15, no. 4, pp. 297-311

Ibrahim, MJ, 2008. 'Growth prospects of oil and gas abundant economies: The Nigerian experience (1970-2000)', *Journal of Economic Studies*, vol. 35, no. 2, pp. 170-190.

Imoughele, LE, and Ismaila, M, 2015. 'The impact of exchange rate on Nigeria non-oil exports', *International Journal of academic research in accounting, finance and management sciences*, vol. 5, no. 1, pp. 190-198.

Issah, M, & Antwi, S, 2017, 'Role of macroeconomic variables on firms' performance: evidence from the UK' *Cogent economic & finance*, vol. 5, pp. 1-18

Ku, HS, Mustapha, U, & Goh, S, 2010, 'Literature review of past and present performance of the Nigerian manufacturing sector', *Proceedings of the institution of mechanical engineers, part b: journal of engineering*, pp. 2-33

Mazumdar, D, & Mazaheri, A, 2005, *The African manufacturing firm: an analysis based on firm studies in sub-Saharan Africa*. Routledge.

Moore, BJ, 1988, 'The endogenous money supply' *Journal of post Keynesian economics*, vol. 10, no. 3, pp. 372-385.

Nayan, S, Kadir, N, Yusof, AH, & Ali, NA, 2015, 'Post Keynesian theory and evidence of money supply endogeneity: a review essay, *Journal of finance and economics*, vol. 3, no. 4, pp. 1-10.

Nneka, CAB, 2012, 'Investigating the performance of monetary policy on manufacturing sector in Nigeria: 1980-2009', *Arabian Journal of Business and Management Review (OMAN Chapter)*, vol. 2, no. 1, pp. 12.

Obadina, T, 1999, *Nigeria's economy at the crossroads. Africa Recovery, 13(1), 14. Manufacture*, vol. 224, no. 12, pp. 1894-1904.

Okejiri, E., 2003. 'National Office for technology acquisition and promotion (NOTAP), speech at Nigeria's imperative in the new World Trade order, workshop report', *African economic research consortium (AERC). Department of economics, University of Ibadan: Ibadan*.

Onayemi, T., 2003. 'Nigeria Oil; Prices, Politics and the People', *Nigeria Today*.

Panagopoulos, Y, & Spiliotis, A, 2008, 'Alternative money theories: a G& testing', *Journal of post Keynesian economics*, vol. 30, no. 4, pp. 601-622.

United Nations Conference on Trade and Development. 2015. *World Investment Report 2015: Reforming international investment governance.* [online]. Available from: http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf [Accessed 16/06/2016].

Usman, OA, & Adejare, AT. 2014, 'Impact of monetary policy on industrial growth in Nigeria', *International Journal of Academic Research in Business and Social Sciences*, vol. 4, no. 1, pp. 18-31

Yaqub, JO, 2010. 'Exchange rate changes and output performance in Nigeria: a sectorial analysis', *Pakistan journal of social sciences*, *7*(5), pp. 380-387.