

Finance Challenges of Manufacturing Companies in Ghana and Their Contributions to the Economic Growth of Ghana

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Abstract

This study sought to outline some of the financial challenges of manufacturing companies in Ghana as well as their contributions as companies to the economic growth of Ghana. Moreover, it also aimed to analyze some of the effect of adequate financing on the growth of the manufacturing companies in Ghana and the diverse effects of financial challenges on the performance of manufacturing companies in Ghana. Again, the study intended to determine the relationship between the activities of the manufacturing companies in relation to economic growth and development in Ghana as well as to investigate some the factors affecting the availability of finance for the manufacturing sector in Ghana. Various literature and theories were reviewed so as to have ample knowledge background on the research topic. The study adopted the method of primary data (questionnaires) to elicit information from the respondents. The study considered a total of 400 population and a sample size of 200 respondents were selected for the purpose of the research work. The study made useful findings and recommendations.

Keywords: Finance, Manufacturing, Economic growth

1.0 Introduction

1.1 Background of Study

The activities of manufacturing companies in Ghana have improved with the growth of technology and new ideas in the business world. The manufacturing companies in Ghana are grouped into sectors. According to (Frazer, 2004) there are four major sectors in the manufacturing industry in Ghana, namely woodworking, metal-working, food processing, and textiles and garments and together they comprise 70% of the manufacturing companies in Ghana. Most of these manufacturing companies in Ghana consider import substitution industries since they produce for local market and domestic goods which are usually imported. Currently, there is a large stock of manufacturing equipment found within the various companies across the country (Okon, 2010). They range from those manually operated to those fully automated. A research conducted within the Kumasi Metropolis alone in lieu of some recognized manufacturing firms, some of which manufacture for export, showed that majority (70%) use manual equipment for production, 20% semi-automated, and 10% fully automated equipment (Adejuyigbe, 2006).

Today's market conditions place great emphasis on variety, performance and quality of products. In order to meet these requirements manufacturers have been compelled to utilize complex and sophisticated machines which are usually capital intensive. This poses financing challenges to the manufacturing companies involved (Akinyele, 2011).

Over time, the driving need to meet and improve on the requirements has shifted the trend of manufacturing to high levels of automation (Raouf and Ben-Daya, 1995). The objective behind automation is to achieve higher productivity and profit in order to effectively stay competitive in business.

High levels of automation require that the machines employed operate without trouble and this requirement has changed the technology and operation philosophy of manufacturing industry around the world (Mishra and Pathak, 2004).

Despite the successes attained in this area, one important factor that is necessarily considered is cost of maintenance. The high and rising capital costs of modern production machines as well as high maintenance costs, which have an estimated range of 15% - 40% of production cost, are developments which have forced companies to pay attention to maintenance (Löfsten, 1999; Coetzee, 1999). Further, technology is becoming increasingly complex, with electronics, robotics and computer control now influencing every aspect of manufacturing and maintenance. This has led to many changes in maintenance activities. Special and continuous training programmes are required to provide relevant knowledge, understanding and skills to service the increasingly specialized equipment and keep up with development in industry (Mishra and Pathak, 2004).

British Standard (1974) states that maintenance is a combination of any actions carried out to retain an item in, or to restore it to an acceptable condition. Apart from the cost of maintenance of the machineries in most of the manufacturing companies, over taxation is one of the major factors affecting the performance of the manufacturing companies (Keyinde, 2008). Hence, the study sought to examine some of these finance challenges of manufacturing companies in Ghana and their effect on the economic growth of Ghana.

1.2 Statement of the Problem

The manufacturing industry today has employed many maintenance strategies and philosophies in order to reduce cost, improve the availability of machines and equipment and increase profitability and production process. In addition, various computerized maintenance management systems, which employ customized software, are available to manufacturing companies to facilitate efficient maintenance management of the increasing number of complex devices equipment and systems utilized on a daily basis (DiPaolo, 2010). Bamber et al., (1999) reports that an effective maintenance activity can make a significant contribution to company profitability through increased production efficiency plant, availability and reliability. However, the major challenge confronting the manufacturing companies in Ghana is finance. Nonetheless, inavailability of adequate finance for production processes, maintenance of manufacturing plants tend to become a major clog on the wheels of profitability and contribution of manufacturing companies to the economic growth of Ghana.

1.3 Objectives of the Study

The study examined some of the financial challenges of manufacturing companies in Ghana as well as the contributions of these manufacturing companies to the economics growth of Ghana. Other specific objectives of study included:

1. To investigate the effect of adequate financing on the growth of the manufacturing companies in Ghana.
2. To examine the effect of financial challenges on the performance of manufacturing companies in Ghana.
3. To determine the relationship between the activities of the manufacturing companies and economic growth and development in Ghana.
4. To ascertain some of the factors affecting the availability of financial support for the manufacturing sector in Ghana.

1.4 Research Questions

The study came up with research questions so as to ascertain the above stated objectives of study. The specific research questions for the study are stated below as follows:

1. What are some of the positive effect of adequate financing on the growth of the manufacturing companies in Ghana?
2. What are some of the effects of financial challenges facing on the performance of manufacturing companies in Ghana?
3. What is the relationship between the activities of the manufacturing companies and economic growth and development in Ghana?
4. What are the factors affecting the availability of finance for the manufacturing sector in Ghana?

1.5 Statement of Research Hypothesis

Hypothesis 1

H_0 : Lack of adequate finance has no significant effect on the manufacturing companies

Hypothesis 2

H_0 : the performance of manufacturing companies in the stock market does play any significant role in the economic growth of Ghana.

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter gives an insight into various studies conducted by outstanding researchers, as well as explained terminologies with regards to the finance challenges of manufacturing companies in Ghana and their contributions to the economic growth of Ghana.

The chapter also gives a resume of the history and present status of the problem delineated by a concise review of previous studies into closely related problems.

2.1 Conceptual Framework

2.1.1 Overview of the Manufacturing Sector in Ghana

The manufacturing sector in Ghana covers 16 of the 33 sub-sectors in the international standard classification of industries (ISIC). Manufacturing Value Added (MVA) was 5.8% of GDP in 2013. The sector has experienced a sustained decrease in its share of GDP throughout the past decade, losing more than 40% of its 2006 share of 10.2% (Table 1). Services and, recently, oil have grown at the expense of manufacturing and agriculture. Average growth rate for the manufacturing sector from 2006 to 2013 was about 2%, if we leave out a 17% growth rate reported for 2011. In 2013, MVA amounted to US\$2,703 million (Table 2). Ranked by value added, the top five subsectors were food and beverages (30%), paper and paper products (19%), chemicals and chemical products (13%), other non-metallic products (9%), and textiles (9%). Ghana does not report a great deal of manufacturing output or

employment statistics to international agencies. In 2003, the last time an industrial census was conducted in Ghana, there were about 26,000 manufacturing establishments employing about 243,500 persons. About 55% of the establishments were micro-businesses, employing less than 4 persons; 40% were small businesses, employing between 5 and 19 persons; 5% were medium businesses, employing 20–99 persons; and only 1% were large businesses, employing 100 or more persons (Table 3). Micro businesses accounted for 15% of manufacturing employment; small and medium enterprises contributed 51% of employment; large businesses accounted for 34% of employment. Most of the establishments were located in the Greater Accra and Ashanti regions; Greater Accra had 25.7% of establishments and 27.9% of employees while Ashanti had 24.7% of establishments and 24.3% of employees. According to the 2003 Industrial Census, almost 50% of manufacturing employees were apprentices or unskilled workers. About 5% were professional and managerial staff and 40% were skilled workers. In our interviews, we asked manufacturers what critical skills they need in their businesses and how they find them. Key informants pointed to a shortage of critical skills in mechanical and electrical engineering, quality control, and information technology. Some mentioned a shortage of skilled artisans and lack of craftsmanship. As a result, many companies are dependent on skilled expatriate labor. They bring in people from South Africa, India, Togo, and other places. The 2003 Industrial Census reported that 9.5% of manufacturing employees were non-Ghanaian but it does not classify them by their skill levels. It is common for companies to fly in foreign technicians, at high cost, to install and repair equipment. Many companies run in-house training courses but they also send their people for specialized training offered by regulators and business associations. However, some key informants expressed disappointment at the unwillingness of employees to learn or expand their horizons. Others noted that there is a willingness to learn, but the cost of training can be high when you factor in the large number employees that need training and expenditures on per diem allowances, food, and transportation. They noted that the educational system does not equip graduates with the skills needed by employers. Kenya and Vietnam are used as comparators for Ghana in this report. The three countries are all lower-middle-income economies. Economic profiles for the three countries are shown in Table 4. Kenya is the leading manufacturing economy in East Africa and Vietnam is emerging as a major manufacturing center in East Asia. Ghana performs favorably in the World Bank's Doing Business Ranking (DBR). It placed 70 out of 189 countries in the 2015 DBR, compared to 78 for Vietnam and 136 for Kenya. However, Ghana's manufacturing sector faces significant business environment challenges, as evidenced in the World Bank's Enterprise Survey 2014. A much higher proportion of manufacturing firms in Ghana consider tax rates, electricity, access to finance, customs and trade regulations, and corruption as major constraints, compared to their counterparts in Kenya and Vietnam. For example, 73% of manufacturing firms in Ghana consider electricity a major constraint compared to 37% in Kenya and 11% in Vietnam; 58% consider access to finance as a major constraint compared to 24% in Kenya and 9% in Vietnam; and 42% consider corruption is a major constraint compared to 26% in Kenya and 5% in Vietnam. The manufacturing sector in Ghana is domestic oriented but heavily dependent on imported inputs. Note that import dependence is not necessarily a problem; however, the manufacturing sector should export sufficiently to at least cover a substantial share of its imports. According to the Enterprise Survey, manufacturers in Ghana earn almost 90% of total sales from the domestic market. Just over 25% of the firms engage in exports; i.e., earn at least 1% of total sales from exports. Only 11% have internationally recognized certification. And almost 50% of total inputs are imported. Ghana's manufacturers perform less favorably in all these measures compared to their counterparts in Kenya and Vietnam (Table 5). In particular, manufacturers in Kenya are highly export oriented and less dependent on imported inputs. Ghana competes in the global economy using primarily unskilled labor and natural resources. The World Economic Forum's Global Competitiveness Index (GCI) provides a gauge on the dynamism of the manufacturing sector relative to the comparators. For the period 2014–2015, Ghana ranked 111 out of 144 countries in the GCI compared to 90 for Kenya and 68 for Vietnam. Ghana lags behind Kenya and Vietnam because it performs worse on GCI components, such as infrastructure, macroeconomic conditions, education and training, and labor market conditions (Table 6). Regarding skills, the quality of the education system and the extent of staff training in Ghana are assessed to be lower than Kenya. The labor market in Ghana performs poorly and exhibits considerable rigidity. Ghana ranked 137 on the GCI for flexibility of wage determination while Kenya ranked 69. Redundancy costs average about 6.5 weeks of salary in Kenya compared to 50 weeks in Ghana. Ghana's manufacturing firms have operated in a particularly difficult business environment during the last few years. The persistent power crisis compels them to use high cost back-up generators to run their production operations. According to the Enterprise Survey, losses from electricity outages amounted to 13% of annual sales for Ghanaian manufacturers, compared to 6% in Kenya and 1.3% in Vietnam. Ghanaian manufacturers generated 10% of their electricity from generators compared to 7% in Kenya and 3% in Vietnam. And capacity utilization in manufacturing is about 65%, compared to 72% in Kenya and 77% in Vietnam. Persistent budget deficits and government's heavy borrowing on domestic financial markets, as well as persistent trade and current account deficits that put pressure on the exchange rate contribute to chronic macroeconomic instability. On the GCI, Ghana ranked 140 and 141, respectively, on government budget balance and inflation. In 2014, the Ghana cedi depreciated against US dollar by 26.5%, government budget deficit was about 10% of GDP, and inflation was 17% in

November.

2.1.2 Ghana's Manufacturing Potential

The Ghana Economic Transformation Case Study, an ACET working paper, identifies products and services that can drive Ghana's economic transformation. The study used several approaches to identify the most promising products and services that can make significant impact on Ghana's foreign trade. To identify opportunities in the manufacturing sector, it is essential to:

- 1) Examine what export-oriented free zones companies and foreign direct investors are doing;
- 2) Analyze export data for products in which Ghana has strong comparative advantage; and
- 3) Review Ghana's productive structure to identify high-value products that it can transition into using technologies and skills similar to those currently deployed in already successful product lines. Some of this analysis can be technical and so the details will not be presented here. Instead, we report on the results in ACET (2012) and World Bank (2013).

It attracted over US\$280 million in investments from multinational processors, including Barry Callebaut, Cargill, and ADM. Ghanaian owned Cocoa Processing Company, Niche Cocoa Industry, and Plot Enterprise have also made major investments in the sector. Food and agro-processing has attracted over US\$116 million. Free zones investors have sunk capacity into processing fruits, nuts, fish, edible oils, wood, and textile/garments. Priority sectors for the Ghana Free Zones Board (GFZB) include food and agro-processing, textile/garments, fish processing, pharmaceuticals, and assembly of semi-finished products. Similarly, the focus of investment promotion for the Ghana Investment Promotion Centre (GIPC) includes food and agro-processing, textiles and garments, and pharmaceuticals and drugs. Manufacturing is listed as a targeted priority sector by GIPC. Analysis of export data shows that Ghana has a comparative advantage in many product categories other than the traditional exports of cocoa, gold, timber, and (now) crude oil. However, it would not be worthwhile to sink capacity into any product category if it cannot significantly raise incomes. Thus, proposed products should have high income content and be more sophisticated than what is currently being exported. Increasing the share of high-income goods in the export basket helps to accelerate economic transformation. The potential involves supplying high-income, strong comparative advantage products to regional and global markets. Manufacturing sub-sectors that meet these two criteria include cocoa processing, wood processing, aluminum products, palm oil, food and agro-processing, and fish processing (ACET 2012). However, wood processing has to address sustainability issues related to deforestation and illegal logging. Significant technology, knowledge, and skills are embedded in the manufacturing subsectors that capture large shares of manufacturing value added; for example, food and beverages, chemicals, and textiles. These assets can be transferred to manufacture other products within the sub-sector or even beyond. It is also easier to move up in the value chain after mastering related technology and markets. Ghana should look for opportunities to build on existing capacities to expand its manufactured product base. World Bank (2013) analyzed Ghana's production structure and identified chemicals and health-related products, electronic component assembly, construction materials, food processing, and fish processing as promising sectors. Interviews conducted with stakeholders pointed to opportunities and dynamism in pharmaceuticals manufacturing. It was noted that the emergent petrochemical industry could drive the chemical products sub-sector, including the manufacture of pharmaceuticals. Pharmaceuticals manufacturing is expected to focus on finding solutions to major tropical diseases and infections. Opportunities to develop remedies and medications that tap into local knowledge and herbs remain unexplored.

In summary, opportunities for labor-intensive manufacturing in Ghana include:

- Cocoa processing – to increase export earnings by adding more value to cocoa beans. Ghana is the world's second leading producer of cocoa and has developed an extensive value chain, extension and quality control system for the product.
- Food and agro-processing – to reduce huge post-harvest losses and add value to Ghana's horticultural products by preserving and processing them into food products, juices, concentrates, and dehydrated products for domestic and export markets. Opportunities abound for cereals, tropical fruits, nuts, vegetables, and starchy food crops (yams, cassava, and plantains).
- Palm oil – to process oil palm fruit into crude and refined palm oil. Palm oil is widely used in food, detergent and cosmetics manufacturing, chemicals industry, and in the biodiesel sector. With over one million hectares of land suitable for oil palm, there is a great potential to significantly increase palm oil exports to regional and global markets.
- Textiles and garments – to tap into huge local and regional demand for niche African fabrics and designs, and take advantage of preferential access to the USA and other international markets to integrate into global value chains.
- Fish processing – to prepare and preserve fish and manufacture fish products and fish meals. Ghana has excellent fisheries endowment from the Atlantic Ocean, the large Volta Lake, Bui Dam, inland rivers and lagoons, and an emergent aquaculture sector. Opportunity to export preserved and processed fish from the aquaculture segment is huge.

- Aluminum products – to produce aluminum materials for the housing and construction industry, transport industry, and for household products. The industry is expected to be driven by a huge demand for housing and household products by a growing and increasingly urbanized population. Ghana has presence in intermediate and final products segments of the value chain. Opportunity to export to the sub-region keeps growing.
- Pharmaceuticals – to produce affordable off-patent drugs and capitalize on local knowledge and herbs to develop remedies and medication for major tropical diseases and infections.
- Component assembly – to capitalize on the abundance of semi-skilled labor to assemble semi-finished products into consumer goods, tools, and spare parts for domestic and regional markets.

2.1.3 Key Issues and Challenges for Manufacturing in Ghana

Many of the issues and challenges for manufacturing in Ghana have been flagged in the World Bank's Doing Business Rankings, The World Economic Forum's Global Competitiveness Index, the World Bank's Enterprise Survey, and in the Association of Ghana Industries' (AGI) quarterly Business Barometer reports. This report assessed key issues and challenges by interviewing manufacturers, business associations, and government agencies. Each key informant was asked to respond to the following two questions.

(1) What do you consider to be the key issues and challenges for light manufacturing companies in Ghana?

(2) What can the private sector and/or government do to address these challenges? Five key issues and challenges emerged from the interviews:

1. Competition from Imported Goods

Huge volumes of products that are manufactured in Ghana are also imported into the country. Most of these imports are cheaper and some are of higher quality. Some of the imports are cheaper because they are either used goods (as in apparel) or lower quality goods (as in lower gauge electrical cables or roofing sheets); others are cheaper because the exporters obtain subsidies from their governments (as in China's export tax rebates). For the same quality products, some Ghana-made products are more expensive because the manufacturers are inefficient (old technology, over-staffing, limited economies of scale, limited skills, or high cost inputs and taxes). It is important to determine the factors behind the lack of competitiveness for different categories of Ghana-made goods and develop appropriate policies and countervailing measures to level the playing field and stimulate the growth of the manufacturing sector.

2. Excessive Taxes, Levies, and Fees

Ghanaian manufacturers are heavily dependent on imported materials and parts but are heavily taxed on these inputs. The cumulative effect of the different levies and taxes imposed on imported items can be large. For a typical consignment, these charges include import duties (0, 5, 10 or 20% of the value), import VAT (15%) and NHIL (2.5%), processing fee (1%), ECOWAS levy (0.5%), Export development and investment levy (0.5%), destination inspection fee (1%), and GCNet charge (0.4%). These levies and taxes can range from 20.9% to 40.9% of the item's value. Some items also attract additional excise duty (25%) and environmental levy (20%), as well as a recently introduced special import levy (1–2%) and national fiscal stabilization levy (5%). In addition, key informants mentioned that payment of unofficial charges is common at the ports. According to USAID (2010), unofficial charges paid to clear a 20-foot container from Tema port averaged US\$55.60. While most plant and processing equipment incur zero import duty, the impact of VAT and NHIL can be significant on high value equipment. Free zones companies are exempt from paying duties and taxes on imported materials and parts. There is also a duty claw back scheme where import duty paid on imported materials would be refunded when the manufacturer exports the finished product containing the materials. Corporate tax rate is 25% but GIPC registered companies pay reduced tax rates depending on the sector and location of the business; they also enjoy tax holidays of between five to ten years. Free zones companies enjoy a 10-year tax holiday and 8% corporate tax thereafter. In addition to corporate taxes, municipal and district assemblies impose licensing fees and various levies on businesses located within their territory. These levies can be contentious since they are not backed by law and are imposed arbitrarily and unilaterally by the assemblies to raise revenue. Key informants mentioned an emerging phenomenon where the assemblies are trying to levy fees on vehicles with company logos because they classify them as moving advertising billboards. Environmental Protection Agency, Fire Service and Factory Inspectorate also visit manufacturing premises, conduct inspections and impose various charges for annual certificates and various violations. Key informants observed that manufacturers are harassed by assemblies and government agencies because they have visible and tangible assets that make them easy targets for revenue seeking officials.

3. Energy Crisis and Utility Pricing

Ghana has experienced a prolonged energy crisis, which has led to extensive electricity rationing and blackouts. There is an ongoing energy rationing where the electricity company switches off power to different areas according to a supposed schedule. It is called load shedding. Load shedding has compounded the problem of manufacturers who have always endured electricity shortages and unreliable supply. Now more manufacturers need to acquire generators for backup power. Some manufacturers have reduced their operating hours and reduced their staff as a result of load shedding. A key informant affirmed that capacity utilization at manufacturing establishments is between 10% and 60%. Load shedding, high cost generator usage, increases in electricity and fuel prices, as well

as low capacity utilization have raised the production cost of many manufacturers, adversely impacting the competitiveness of their products against imported goods. A related issue raised by key informants concerns the terms under which electricity is distributed to manufacturers compared to consumers. It was noted that current policies do not recognize the special economic role of manufacturers and business in general. They provide employment and consume larger quantities of electricity than residential users. On the issue of electricity disruptions, they expected that load shedding and electricity outages could be better managed to ensure minimal disruption to businesses. Manufacturers should also be cheaper to service since they generally congregate in designated industrial areas. In addition, many questioned why utilities tariffs should be higher for industry than for residential users. For most products, high volume users pay a lower cost per unit than low volume users, but this doesn't appear to be the case for electricity in Ghana. In 2014, industry to residential tariff rate in Ghana was about 150% compared to 75% in Kenya.

4. Funding and Interest Rates

Key informants recounted the lack of long-term capital for manufacturers. Many manufacturers see opportunities for expansion in their business but cannot raise affordable capital to make the necessary investment. They welcomed EDAIF's leadership role in providing capital for eligible manufacturers, but they also acknowledged that EDAIF is not enough and more institutions are needed to provide alternative sources of funding. They cautioned that EDAIF may be over-stretched and could end up under political pressure and lobbying. It was noted that EDAIF is able to perform its functions because it has a well-defined source of predictable and consistent funding; it does not depend on government subvention or the consolidated funds. It was suggested that a similar revenue model (namely, x% of something) be designed for other agencies such as the Venture Capital Fund and the National Board for Small Scale Industries. Another finance-related issue concerns high interest rates on loans. According to the Association of Ghana Industries (AGI), interest rate on loans from commercial banks ranges from 35% to 40% while micro-finance companies charges range from 60% to 80%.

5. Lack of Government Commitment

Most of the key informants felt government lacks commitment to manufacturing. The challenges of the manufacturing sector have been discussed in many forums but government has done nothing about it, only paying lip service. In particular, AGI has made numerous presentations on behalf of manufacturers, but not much has come out of it. Some wondered how the proposed Ghana Transformation Forum would be different from other talk shops. Some informants claimed that government does not seem to appreciate or understand the strategic role manufacturing plays in national development as an employment generator, a major source of tax revenue, and a source of technological capacity. Some key informants complained that government does not use its buying power to support Ghanaian manufacturers, citing the recent revelation that the redesigned Parliament was furnished with imported Chinese furniture. They also noted that some government policies undermine the development and growth of the manufacturing sector. For example, allowing unfettered importation of used clothes has destroyed the textile industry, just as used vehicle spare parts imports reduce the incentives for local manufacturing of vehicle parts.

2.1.4 History of Ghana Stock Exchange

The Ghana Stock Exchange (GSE) was incorporated in July 1989 as a private company limited by guarantee under Ghana's companies' code, 1963. The Exchange however, changed its status to a public company limited by guarantee in April 1994. Trading on the floor of the Exchange commenced in November 1990. All types of securities can be listed. From an initial three promoters, the Exchange currently has fifty-two members made up of eleven Licensed Dealing Members (LDM) and forty-one Associate Members. There are currently thirty-eight (38) listed companies. The criteria for listing include capital adequacy, profitability, spread of shares, years of existence, management efficiency. In 1993, the GSE was the sixth best index performing emerging stock market, with a capital appreciation of 116%. In 1994 it was the best index performing stock market among all emerging markets, gaining 124.3% in its index level. 1995's index growth was a disappointing 6.3%, partly because of high inflation and interest rates. Growth of the index for 1997 was 42%, and at the end of 1998 it was 868.35. GSE-All Share Index is a market capitalization index of all share listed on GSE. As of December 2013 the market capitalization of the Ghana Stock Exchange was GH¢61,158.29million compared to the December 2012 end figure of GH¢57,264.22million, an increase of 6.80%. Domestic Market capitalization recorded a 76.68% increase ending December 2014 with GH¢11,694.93 compared to GH¢6,753.14 recorded for the same period in 2012. The manufacturing and brewing sectors currently dominate the exchange. A distant third is the banking sector while other listed companies fall into the insurance, mining and petroleum sectors. Most of the listed companies on the GSE are Ghanaian but there are some multinationals. There is an 8% withholding tax on dividend income for all investors. Capital gains on securities listed on the exchange remain exempt from tax until 2015. The exemption of capital gains applies to all investors on the exchange. There are no exchange control regulations on the remittance of original investment capital, capital gains, dividends, interest payments, returns and other related earnings. Although non-resident investors can deal in securities listed on the exchange without obtaining prior exchange control permission, there are some restrictions on portfolio investors not resident in Ghana. The current limits on

all types of non-resident investor holdings (be they institutional or individual) are as follows: a single investor (i.e. one who is not a Ghanaian and who lives outside the country) is allowed to hold up to 10% of every equity. Secondly, for every equity, foreign investors may hold up to a cumulative total of 74% (in special circumstances, this limit may be waived). The limits also exclude trade in Ashanti Goldfields shares. These restrictions were abolished by the Foreign Exchange Act, 2006 (Act 723).

2.1.5 Performance of Banking and Manufacturing Firms on Ghana Stock Exchange

According to the Centre for Policy Analysis (CEPA), (2012), the banking sector of Ghana has grown rapidly over the past five years, both on account of participation of new entrants and an increase in the size of financial assets in the industry. Banks' branch networks have been broadened across board from 374 branches in 2005 to 708 branches at the end of 2010; over the same period banking sector assets more than quadrupled from GH¢3.8 billion to GH¢17.4 billion. According to the Central Bank of Ghana (2013), total assets of the Ghanaian banking industry rose by 23%, from GH¢22.1 billion in December 2011 to GH¢27.2 billion in December 2012. The growth in banks' assets was supported by a deposit growth of 22.5% during the period and net worth which recorded a 20.8% growth to GH¢3.1 billion. According to Central Bank (2013) the banking sector is robust since the financial soundness indicators of the sector remain strong. The Capital Adequacy Ratio (CAR) was well above the 10% threshold and increased to 18.6% at the end of December 2012, compared to 17.4% in December 2011. The broad money supply (M2+) grew by 24.3% in December 2012, compared to a 33.2% growth in December 2011. The Net Domestic Assets of the banking system grew by 49.9% whilst the Net Foreign Assets fell by 10.2%. Reserve money however grew by 36% in December 2012 compared with 31.1% a year earlier. Credit to the private sector grew by 34.1% in December 2012, compared to 26.3% in 2011. In real terms, private sector credit growth was 23.2% in December 2012, relative to 16.3% in 2011. The Bank's latest credit conditions survey showed further easing of credit conditions for large enterprises and consumer credit. The banking sector continued to be profitable and solvent. All financial sector soundness indicators measured by earnings, liquidity, and capital adequacy has been recording some growth. A study conducted by International Monetary Fund (IMF) (2011), on the soundness and resilience of the Ghanaian banking industry, as an update to the Financial System Stability Assessment on Ghana, showed that official financial soundness indicators do not provide an adequate picture of the soundness of the banking system due to weaknesses in banks' financial accounts. Nevertheless, notwithstanding data weaknesses, capital in the banking system has on aggregate increased and liquidity remains high. The high capital levels mainly reflect the recent increase in minimum capital requirements and the significant and increasing share of zero risk-weighted treasury securities. The substantial liquidity in the banking system reflects a combination of intensified deposit mobilization efforts by banks, elevated government expenditures and increased foreign inflows, most notably foreign direct investment, remittances, and portfolio capital flows. Banks have also remained largely profitable. Capital adequacy requirement of the banks is to ensure that banks hold sufficient resources to absorb shocks to their balance sheets. It is designed to assess the solvency of banks. The requirement protects the banks' depositors and lenders and also maintains confidence in the banking system. It is used to measure leverage and assess whether the banks are prepared to take greater risk. The higher the capital adequacy ratio, the lower the leverage; 21 all the listed banks' capital adequacy ratios exceeded the bank of Ghana minimum requirement of 10%, which serves as the benchmark from 2005 to 2009. GCB bank's average capital adequacy ratio of 11.91% is the lowest amongst the listed banks. It is however above the minimum requirement of 10%. This is followed by CAL bank which had an average of 14.95%. CAL bank's ratio reduced significantly from 21.9% in 2005 to 13.1% in the subsequent year and thereafter experienced marginal increases over the years up to 2011 where it fell marginally. HFC bank's capital adequacy ratio is better than that of the rest of the listed banks except EBG. Its ratio increased significantly in 2010 from 17.93% in the previous year to 30.92% and continued the increase in the subsequent year. SGSSB bank's average capital adequacy ratio is slightly below that of the industry and also better than GCB and CAL bank. Its ratio increased significantly in 2009 to 24% from 10.43% in the previous year and continued its increasing trend in subsequent years. EBG maintained the highest average capital adequacy ratio amongst the listed banks.

2.2 Theoretical Framework

2.2.1 The Trade-off Theory

The trade-off theory proposes that a firm's optimal financial strength is determined by a trade-off between the advantages and the disadvantages of borrowing or holding the debt if the firm's assets and future plans for expansion, investment and speculative arrangements are held constant. Usually it is taken for granted that an inside arrangement is acquired so that tax (marginal) advantage of debt financing and the (marginal) costs of financial distress are balanced. Companies may alter their capital structure and aim at an objective debt to total capital ratio that is consistent with theories based on trade-offs between the advantages and disadvantages of debt. However, empirical observational work by Hovakimian et al (2001), demonstrated that the targeted objective ratio may change over time as the firm's profitability and stock price or value change and the firm may confront obstructions as it moves toward the target ratio. The trade-off theory may be subdivided into static and dynamic theories.

Static trade-off model considers, an unequivocally, decision of debt level (Harris and Raviv, 1990), which the firm sees as a desire debt to equity proportion and moves towards it gradually (Myers 1984). The theory gives the prediction that, there exists an optimal target financial debt ratio, at which point the value of the firm is maximized. Miglo (2010) however, brought out the argument that the static model could not explain whether or not firms' leverage is too low and whether or not firms move fast enough towards their target ratios as well as the negative correlation between debt and profitability.

Dynamic trade-off model likewise considers the role of time in identifying the optimal or ideal capital structure. In a dynamic model, the proper financing decision typically hangs on the amount of funds the firm expects to receive in the next period whether it would pay or raise fund for a project. According to Miglo (2010), a firm which is profitable may have a lower leverage if it uses retain earnings to finance its projects and thus reduces the expenses associated with raising funds, as against comparable firms which may have a higher debt ratio in light of the fact that it needs to obtain finance to fund its undertakings

2.3 Empirical Review

The manufacturing sector being one of the traditional sectors that exist in a macroeconomic environment is most likely to be affected by changes in macroeconomic conditions. According to Solow (1956), Sundararajan (1987), Schatz (1964), Diaku (1972) and many other researchers, macroeconomic conditions can affect manufacturing production either positively or negatively and for that matter policy makers should pay particular attention to macroeconomic changes and how they affect manufacturing production. Imoughele (2014) examined the effectiveness of monetary policy on manufacturing sector output. The study covered the period 1986 to 2012. The econometric techniques used in the study include Granger Causality test, the Vector Autoregressive Model and Johansen Co-integration test procedure. The results indicated that growth in manufacturing sector is highly responsive to exchange rate, external reserve and inflation.

A long-run relationship was also found to exist between manufacturing sector output and monetary policy variables. The study also found that the manufacturing sector contribute insignificantly to the Ghanaian economy. The study also analysed the stochastic characteristics of each of the time series variables by testing their stationarity using Augmented Dickey Fuller test and estimated the error correction mechanism model. The study found that credit to the manufacturing sector in the form of loans and advances and foreign direct investment have the capacity to sharply increase the level of manufacturing productivity in Ghana while broad money supply had less impact. The result also indicated that money supply positively affected manufacturing index performance while company lending rate, income tax rate, inflation rate and exchange rate negatively affect the performance of manufacturing sector output in Ghana.

The rate of firm exit in the Ghanaian manufacturing sector prompted the study to investigate firm growth dynamics in Ghanaian manufacturing industry. It was again found that fiscal policy seems particularly important for manufacturing output, both in terms of the magnitude of fiscal elasticities and shorter time lags. The study also found that production in low technological intensity industries on average increases with the exchange rate depreciation, while in high and medium-high technological intensity industries it contracts as a result, the study revealed that the level of output of manufacturing was driven by export-import ratio and political stability and thus stressed the importance of the growth of export-based manufacturing firms in literature gap is that this study only considered total exports to total imports, per capita gross domestic product, real oil price and political stability as macroeconomic variables that affect manufacturing production in Ghana, but there is more macroeconomic variables to talk about or look at. From the above empirical studies, not much research work has been done on the extent to which macroeconomic variables affect manufacturing production in Ghana. The only research work done on Ghana "Determinants of Output of the Manufacturing Industry in Ghana from 1974 to 2006" by Anaman and Osei-Amponsah (2009). However, it did not consider other macroeconomic variables such as private sector credit, consumer price index, infrastructure, labour force, real exchange rate and fixed capital formation as part of their explanatory variables. To fill this literature gap, this study seeks to examine the extent to which private sector credit, consumer price index, infrastructure, labour force, real exchange rate and fixed capital formation influence manufacturing production in Ghana.

Research Methodology

3.0 Introduction

This chapter covers the description and discussion on the various techniques and procedures used in the study to collect and analyze the data as it is deemed appropriate.

3.1 Research Design

According to Asika (2009), research designs are often referred to as the structuring of investigation aimed at identifying variables and their relationships to one another. In this study, questionnaire serves as useful guide to the effort of generating data for this study. The survey research design through the administration of questionnaires

was used for the study.

3.2 Area of the Study

The study will be conducted in Accra, Ghana. Accra is the capital of Ghana, on the Atlantic coast of West Africa. Kwame Nkrumah Memorial Park honors Ghana's first president, who helped lead the country to independence. The park contains Nkrumah's mausoleum and a museum charting his life. Makola Market is the city's vast, colorful bazaar. Popular seafront spots Labadi Beach and Kokrobite Beach offer golden sand and high-energy nightlife

3.3 Population of the Study

The population of study consists of four hundred (400) respondents from most of the manufacturing companies in Ghana with deep knowledge background on finance challenges of manufacturing companies in Ghana and their contributions to the economic growth of Ghana.

3.4 Sample of the Study

The Convenient sampling technique was used in selecting 200 students cutting across various manufacturing companies employees. This was chosen due to the financial strength of the researcher coupled with time constraints.

3.5 Instrument for Data Collection

These are the tools or methods used in getting data from respondents. In this study, questionnaires and interview are research instruments used. Questionnaire is the main research instrument used for the study to gather necessary data from the sample respondents. The questionnaire is structured type and provides answers to the research questions and hypotheses therein.

This instrument is divided and limited into two sections; Section A and B. Section A deals with the personal data of the respondents while Section B contains research statement postulated in line with the research question and hypothesis in chapter one. Options or alternatives are provided for each respondent to pick or tick one of the options.

3.6 Reliability and Validity of Instrument

Reliability means the accuracy of precision of a measuring instrument while validity means the extent to which the research instrument measures what it is supposed to measure. In order to determine the reliability and validity of the study, the test-retest method was used. To have a valid instrument, the questions in the questionnaire will be free from ambiguity (i.e. the questions will not be too complex). To have reliable instrument, the questionnaire will be followed with interview of sample of respondents to know whether their view on the subject.

3.7 Techniques of Data Analysis

Having gathered the data through the administration of questionnaire, the collected data will be coded, tabulated, and analyzed according to the research question and hypothesis.

In order to analyze the data collected effectively and efficiently for easy management and accuracy, the simple percentage method was the analytical tools used for this research project and a sample size of two hundred (200) will be represented by 100% for easy analysis of the responses.

Also, Correlation statistical analytical method will be used in the research work. Correlation as a statistical technique is used in testing of hypothesis so as to predict what the relationship between two variables should be. It is used in drawing and reaching conclusion by collecting the observed values from the questionnaire administered to respondents, testing the degree of freedom and carrying out a decision in determining the critical value of the hypothesis.

$$r = \frac{n\sum X_y - \sum X \sum y}{\sqrt{[n\sum x^2 - (\sum x)^2] [n\sum y^2 - (\sum y)^2]}}$$

Where x = independent factor
 y = dependent factor

3.8 Scoring of the Research Instrument

Since the research instrument used was the questionnaire, it was designed using the like scale method. The questionnaire was designed in the following ways:

- | | | | |
|------|----------------------|---|---|
| i) | Strongly Agreed (SA) | - | 5 |
| ii) | Agreed (A) | - | 4 |
| iii) | Undecided (U) | - | 3 |

- iv) Disagreed (D) - 2
- v) Strongly Disagreed (SD) - 1

3.9 Decision Rule

In taking decision for “r”, the following rules shall be observed;

- i) If the value of “r” tabulated is greater than “r” calculated, accept the alternative hypothesis (H_1) and reject the null hypothesis (H_0).
- ii) If the “r” calculated is greater than the “r” tabulated, accept the null hypothesis (H_0) while the alternative hypothesis is rejected

4.0 Data Presentation Data Analysis and Data Interpretation

4.0. Bio Data of respondents

Table 4.0.1 Gender of respondents

	Frequency	Percentage %	Valid Percent	Cumulative Percent
Valid male	110	55.0	55.0	55.0
female	90	45.0	45.0	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.0.1 shows the gender distribution of the respondents

Out of the 200 respondents used for this study, 110 of them representing 55% were males whereas 90 of them representing 45% percent were females.

Table 4.0.2 Age Range of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid below 20years	30	15.0	15.0	15.0
21-25years	40	20.0	20.0	35.0
26-30years	50	25.0	25.0	60.0
31-35years	50	25.0	25.0	85.0
above 35years	30	15.0	15.0	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.0.2 showing the age distribution of the respondents used for this survey.

From the total number of respondents used for this study, 30 of them representing 15% were below 20 years old. Again, 40 of them representing 20% were between 21-25years old. Also, 50 of them representing 25% were between 26-30 years old. Another 50 of them representing 25% were between 31-35 years old. Further, 30 of them representing 15% were above 35 years old.

4.1. Tables Based On Research Questions: Financial Challenges of Manufacturing Companies and Their Contribution To The Economic Growth Of Ghana

Table 4.1.0 Lack of adequate finance has significant effect on the manufacturing companies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	60	30.0	30.0	30.0
Agree	62	31.0	31.0	61.0
Undecided	30	15.0	15.0	76.0
Disagree	10	5.0	5.0	81.0
strongly disagree	38	19.0	19.0	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.1.0

Respondents who strongly agreed that lack of adequate finance had significant effect on the manufacturing companies were 60 in number representing 30% of the entire number of respondents used for this survey. Respondents who agreed that lack of adequate finance had significant effect on the manufacturing companies were 62 in number representing 31% of the entire number of pupils used for this survey. Again 30 respondents representing 15.0% were undecided. Respondents who disagreed that lack of adequate finance has significant effect on the manufacturing companies were 10 in number representing 5% of the entire number of pupils used for this survey. Respondents numbering 38, representing 19.0% strongly agreed that lack of adequate finance had significant effect on the manufacturing companies.

Table 4.1.1 the performance of manufacturing companies in the stock market plays a significant role in the economic growth of Ghana

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	30	15.0	15.0	15.0
Agree	50	25.0	25.0	40.0
Undecided	30	15.0	15.0	55.0
Disagree	45	22.5	22.5	77.5
Strongly disagree	45	22.5	22.5	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.1.1 Indicated whether the performance of manufacturing companies in the stock market played a significant role in the economic growth of Ghana.

Moreover, respondents who strongly agreed that the performance of manufacturing companies in the stock market played a significant role in the economic growth of Ghana were 30 in number representing 15% of the entire number respondents used for this survey.

Again, respondents who agreed that the performance of manufacturing companies in the stock market played a significant role in the economic growth of Ghana were 50 in number representing 25% of the entire number of respondents used for this survey. Nonetheless, 30 respondents representing 15.0 % were undecided.

The respondents who disagreed that the performance of manufacturing companies in the stock market played a significant role in the economic growth of Ghana were 45 in number, this represents 22.5% of the entire number of respondents used for this survey.

Those pupils who strongly disagree that the performance of manufacturing companies in the stock market plays a significant role in the economic growth of Ghana were 45 in number representing 22.5percent of the entire number of respondents used for this survey.

Table 4.1.2 lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	100	50.0	50.0	50.0
Agree	40	20.0	20.0	70.0
Undecided	20	10.0	10.0	80.0
Disagree	25	12.5	12.5	92.5
strongly disagree	15	7.5	7.5	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.1.2 shows the responses of respondents if lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana.

Those respondents who strongly agreed that lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana were 100 in number representing 50percent of the entire number of respondents used for this survey.

Those respondents who agreed that lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana were 40 in number representing 20percent of the entire number of respondents used for this survey.

20 respondents were undecided.

Those respondents who disagreed that lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana were 25 in number representing 12.5 percent of the entire number of respondents used for this survey.

Those respondents who strongly disagreed that lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana were 15 in number representing 7.5percent of the entire number of respondents used for this survey.

Table 4.1.4 there is a significant relationship between adequate finance and the performance of the manufacturing companies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	120	60.0	60.0	60.0
Agree	30	15.0	15.0	75.0
Undecided	5	2.5	2.5	77.5
Disagree	25	12.5	12.5	90.0
strongly disagree	20	10.0	10.0	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.1.4 shows the responses of there is a significant relationship between adequate finance and the performance of the manufacturing companies.

Those respondents who strongly agreed that there is a significant relationship between adequate finance and the performance of the manufacturing companies were 120 in number representing 60percent of the entire number of respondents used for this survey.

Those respondents who agreed that there is a significant relationship between adequate finance and the performance of the manufacturing companies were 30 in number representing 15.0percent of the entire number of respondents used for this survey,

5 respondents were undecided.

Those respondents who disagreed that there is a significant relationship between adequate finance and the performance of the manufacturing companies were 25 in number representing 12.5percent of the entire number of respondents used for this survey.

Those respondents who strongly disagreed that there is a significant relationship between adequate finance and the performance of the manufacturing companies were 20 in number representing 10.0percent of the entire number of respondents used for this survey.

Table 4.1.5 the cost of maintaining the equipment helps promote the efficiency of manufacturing companies

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	50	25.0	25.0	25.0
Agree	60	30.0	30.0	55.0
Undecided	10	5.0	5.0	60.0
Disagree	45	22.5	22.5	82.5
strongly disagree	35	17.5	17.5	100.0
Total	200	100.0	100.0	
Total	200	100.0		

Source field survey: August 2017

Table 4.1.5 shows the responses of respondents to the cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

50 respondents representing 25.0percent of the population strongly agree that the cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

60 respondents representing 30.0percent of the population agree that the cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

10 respondents were undecided.

45 respondents representing 22.5 percent of the population disagree that the cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

35 respondents representing 17.5 percent of the population strongly disagree that the cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

4.2. Research Hypothesis

H₀: Lack of adequate finance has no significant effect on the manufacturing companies

H₁: Lack of adequate finance has significant effect on the manufacturing companies

Level of significance: 0.05

Decision rule: In taking decision for “r”, the following rules shall be observed;

- i) If the value of “r” tabulated is greater than “r” calculated, accept the alternative hypothesis (H₁) and .reject the null hypothesis (H₀).
- ii) If the “r” calculated is greater than the “r” tabulated, accept the null hypothesis (H₀) while the alternative hypothesis is rejected.

4.2.0 Correlations

	Lack of adequate finance has significant effect on the manufacturing companies	there is a significant relationship between adequate finance and the performance of the manufacturing companies
Lack of adequate finance has significant effect on the manufacturing companies	Pearson Correlation Sig. (2-tailed) N	1 .901** 200
there is a significant relationship between adequate finance and the performance of the manufacturing companies	Pearson Correlation Sig. (2-tailed) N	.901** .000 200

**** . Correlation is significant at the 0.05 level (2-tailed).**

Source field survey: August 2017

Conclusion based on table 4.2.0 above

Since the “r” calculated (0.00) is less than the “r” tabulated (0.05), we reject the null hypothesis H₀ and accept the

alternative which simply says that *lack of adequate finance has significant effect on the manufacturing companies*. There is equally a strong positive correlation of 0.901 between adequate finance and the performance of the manufacturing companies. This simply means that availability of adequate finance helps boost the performance of the manufacturing companies.

Hypothesis 2

Ho: the performance of manufacturing companies in the stock market does not play any significant role in the economic growth of Ghana.

Hi: the performance of manufacturing companies in the stock market plays significant role in the economic growth of Ghana.

Level of significance: 0.05

Decision Rule

Reject the null hypothesis if the p-value is less than the level of significance, accept the null hypothesis if otherwise.

Test Statistics

	the performance of manufacturing companies in the stock market plays significant role in the economic growth of Ghana
Chi-Square	10.250 ^a
Df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.

Conclusion

Since the p-value (0.000) is less than the level of significance (0.05), we reject the null hypothesis and accept the alternative hypothesis thereby concluding that the performance of manufacturing companies in the stock market plays significant role in the economic growth of Ghana.

5.0 Summary, Conclusion and Recommendation

The main aim of the research work is to examine the finance challenges of manufacturing companies in Ghana and their contributions to the economics growth of Ghana. Other specific objectives of study include:

1. To examine the effect adequate financing on the growth of the manufacturing companies in Ghana.
2. To examine the effect of financial challenges on the performance of manufacturing companies in Ghana.
3. To determine the relationship between the activities of the manufacturing companies and economic growth and development in Ghana.
4. To investigate on the factors affecting the availability of finance for the manufacturing sector in Ghana.

Summary of Findings

The study made the following findings from the responses received from the respondents that:

1. Lack of adequate finance has significant effect on the manufacturing companies.
2. the performance of manufacturing companies in the stock market plays a significant role in the economic growth of Ghana.
3. Lack of financial support from the financial institutions limits the production and the contribution of the manufacturing companies to the economic growth of Ghana.
4. There is a significant relationship between adequate finance and the performance of the manufacturing companies.
5. The cost of maintaining the equipment helps promote the efficiency of manufacturing companies.

Conclusion

In conclusion lack of adequate finance has significant effect on the manufacturing companies. There is equally a strong positive correlation of 0.901 between adequate finance and the performance of the manufacturing companies. This simply means that availability of adequate finance helps boost the performance of the manufacturing companies.

Recommendation

The study recommends that:

1. The bank of Ghana should assist the manufacturing in the provision of loans so as to enable both the small businesses to grow.
2. The government of Ghana should monitor tax level against most of the manufacturing companies in Ghana so as to motivate both domestic and foreign investors into the Ghana market.

3. There should be a control mechanism monitoring the rate of importation in Ghana so as to improve the patronage of domestic goods.

References

1. Adejuyigbe, S.B., 2006, Industrial Automation in Ghanaian Industries (The Case of Kumasi Metropolis), Journal of Engineering and Applied Sciences. Medwell Online, ANSInet Building, 308- Lasani Town, Sagodha Road, Faisalabad- 38090, Pakistan. Vol.1 No. 4, pp 383-393.
2. Adjaye, R.E., 1994, "Design and Optimized Operation with Reliability Centered Maintenance", IEE Conference on Electrical Safety in Hazardous Environment, No. 399, pp. 165-71.
3. Adonteng, D. O., 2011, Effective Accident /Incident Management Techniques for Accident Prevention and Road Safety Management, Ghana Institution of Engineers: Industrial Safety Management - The Role of the Professional, Kumasi, 24th March, 2011
4. Afranie, S., 2004, Maintenance of Residential Buildings in Ghana: Analyses of Problems, Causes and Policy Interventions, Journal of Applied Science and Technology. ISSN: 0855-2215
5. Ahmed, Elsadig Musa (2012), Malaysia's Food Manufacturing Industries Productivity Determinants, Modern Economy, 2012, 3, 444-453, doi:10.4236/me.2012.34057
6. Ahmed, S., Hassan, M.H. and Taha, Z. (2005) TPM Can Go Beyond Maintenance: Except From A Case Implementation, Journal of Quality in Maintenance Engineering, Vol. 11 No. 1, pp. 19-42. 6.
7. Ahuja, I. P. S. and Khamba, J.S., 2007, An Evaluation of TPM Implementation Initiatives in an Indian Manufacturing Enterprise, Journal of Quality in Maintenance, Vol.13, No.4
8. Al-Faki M. (2006). The Nigerian Capital Market and Socioeconomic Development. Paper presented at the 4th Distinguished Faculty of Social Science Public Lecture, University of Benin, 26 July, pp. 9-16
9. Alile HI (1997), Government must divest. The Business Concord December 2, P. 8. Alile HI. (1984), The Nigerian Stock Exchange: Historical Perspectives ,Operations and Contributions to Economic Development, Central Bank of Nigerian Bullion, 2: 65-69.
10. Anaman, Kwabena A. and Osei-Amponsah, Charity (2009), Determinants of the Output of the Manufacturing Industry in Ghana from 1974 to 2006, Ghana Policy Journal Vol. 3, The institute of Economic Affairs, Accra, Ghana.
11. Anyanwu JC (1998), Stock Market Development and Nigerian Economic Growth, Nigerian Financial Review, 7(2): 6-13.
12. Arestis, P., Demetriades, P.O., & Luintel, K.B. (2001). Financial development and economic growth: the role of stock markets. Journal of Money, Credit and Banking, 33(1), 16–41.
13. Asea J. (2003) Understanding the determinants of managerial ownership and the link between ownership and performance. Journal of Financial Economics 53: 335- 384.
14. Atje R Jovanovic (1993), Stock Market and Development. European Economic Review, 37: 632-640.
15. Charles, A. N. B. (2012). Investigating the Performance of Monetary Policy on Manufacturing Sector in Nigeria. Arabian Journal of Business and Management Review, 2(1): 12 – 25.
16. Diaku, I. (1972). A Capital Surplus Illusion: The Nigeria Case Revisited. The Nigerian Economic Society, pp. 135 – 145.
17. Eze, Onyekachi Richard and Ogiji, Festus O. (2013), Impact of Fiscal Policy on the Manufacturing Sector Output in Nigeria: An Error Correction Analysis, International Journal of Business and Management Review, Vol. 1, No. 3, pp. 35 – 55.
18. Fagerberg, J. and Verspagen, B (1999). Modern Capitalism in the 1970s and 1980s", in M. Setterfield ed., Growth, Employment and Inflation, Houndmills, Basingstoke, MacMillan.
19. Imoughele, L. E. (2014). Empirical Investigation of the Impact of Monetary Policy on Manufacturing Sector Performance in Nigeria: 1989 to 2012. International Journal of Education and Research, vol 2, No. 1, pp: 1 – 20.
20. Johansen, S. (1988). Statistical Analysis of Cointegration Vectors. Journal of Economic Dynamics and control, 12: 231-254.
21. Kaliappa Kalirajan (2004), Is the Manufacturing Sector in India an Engine of Growth? Institute for Social and Economic Change, Working Paper 151.
22. Katuria, V., and Raj, R.S.N. (2009), Is Manufacturing an Engine of Growth in India? Analysis in the Post Nineties, Paper for the UNU-WIDER/UNUMERIT/UNIDO.
23. Odior, E.S. (2013). MACROECONOMIC Variables and the Productivity of the Manufacturing Sector in Nigeria: A static Analysis Approach. Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB), Vol., No. 5, pp: 362-380.
24. Loto, M. A (2012), The Determinants of Output Expansion in the Nigerian Manufacturing Industries, Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 3(6): 991- 996 © Scholarlink Research Institute Journals, 2012 (ISSN: 2141-7024)