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Barriers of Advancement: Ghana's Printing Industry

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Abstract:

Ghana's Printing Industry has for over four decades provided essential services across all sectors of the economy without any significant contribution to economic growth. Despite Government private sector development initiative in 2004, the printing industry is still struggling to contribute significantly to economic growth in order to reduce youth unemployment. This study explored and unearthed challenges facing small scale printing industries in Accra, with the focus on management, employees, clients and raw materials, especially paper. With the use of qualitative and quantitative approaches, data were collected through in - depth interview, observation and survey questionnaire. Sample consisted of twenty Chief executive officers, seventy five employees and fifteen clients from eighteen printing firms in Accra.

Most respondents expressed lack of local raw materials, importation of raw materials, high import duties, high foreign exchange rates, development of technology, lack of expertise and government contracts and unfair distribution of textbooks printing as setbacks for the printing industry. Members of the printing industry argued that the private sector development initiative is inadequate, as it did not address important concerns of the printing industry.

Keywords: *Printing, printing industry, paper production, barriers of printing*

1. Introduction

Private sector participation in economic growth and employment creation has been increasingly emphasised in Ghana since the introduction of the Structural Adjustment Programme in 1983, when the country had to go through economic reforms to salvage the economy (Bawumia, 1998). More recently, the Government, in the Private Sector Development Strategy explicitly underscored the importance of the private sector in the achievement of the Golden age of Business (Legon Observer, 2008). The promotion of private sector development to stimulate economic growth and create jobs to reduce youth unemployment has been accepted worldwide.

According to Keys & Thomas (2012), the private sector can be of much help in developing countries, as it can create job opportunities, earnings for workers and their dependants, goods and services for consumers, and tax revenue and capacity-building opportunities for governments. Keys & Thomas further states that, under the right business environment, the impact of business from the private sector, may even be higher than that of governments with their often-limited resources. For example, in an estimation of the 100 largest economies in the world in 2009, 44 were businesses rather than national economies (Keys & Thomas, 2012).

A report by The United Nations Industrial Development Organization (UNIDO, 2008) also states that, the ability of the private sector to stimulate economic growth is well known. Hence being referred to as "engine of growth." The Millennium Development Goal also accentuate that, in the situation where government is not in a position to create jobs, the private sector can be of help (MDGs Targets and Indicators, 2012).

In spite of the numerous efforts made by various governments through various initiatives to stimulate the economy for more jobs, Ghana as a nation is still engulfed in graduate unemployment (Aryeetey, 2011). whilst some authors are of the view that pragmatic economic policies are important in addressing youth unemployment (Audretsch et al 2001; Baptista & Thurik, 2004; UNIDO, 2008), others are of the view that institutions are not training employable graduates and that, courses of study are not tailored to meet the current manpower needs of the country (Afenyadu, 1998; Afenyadu et al., 2001; Madumere-Obike, 2000 and Nwangwu, 2007).

The present paper shows the importance of the role that entrepreneurship can play in bringing down unemployment. Levels of entrepreneurship and unemployment differ considerably across countries. So does the public policy approach of different countries nurturing and sustaining entrepreneurial activities.

Available statistics on graduate unemployment in Ghana suggest that, it takes about two years for 50% of graduates from Ghanaian institutions to secure employment after national service, and also it takes about three years for 20% to secure jobs (Aryeetey, 2011).

In lurching The Institute of Statistical, Social and Economic Research (ISSER) State of the Ghanaian Economy Report (SGER, 2012), Prof Asante acknowledged the current economic challenges and the huge graduate unemployment facing the country. In his recommendations he argued that unless more pragmatic attempts are made to reduce the cost of servicing loans, the private sector cannot take advantage of low inflation and other policies aimed at creating a vibrant private sector that would create jobs and promote economic growth.

In the midst of low economic growth and youth unemployment lies gold mines of small, medium and large industries, which, with the right support and conducive environment, have the capacity to create jobs, reduce youth unemployment and improve economic growth. One such industry, which has served every sector of the Ghanaian economy for years, and is capable of reducing youth unemployment, due to the diverse nature of jobs carried out, is the printing industry. This study addresses an area that has not received the necessary support by the government and other stakeholders, an industry in which there is a good opportunity for business expansion, reducing youth unemployment and promoting economic growth.

2. Methodology

In an attempt to explore and identify possible key barriers crippling the printing industry, data were collected through in - depth interview, observation and questionnaire. In all, eighteen printing firms were selected for the study. Ethical approval was sought and obtained from the owners of the eighteen firms. Voluntary informed and written consent was obtained from all participants.

Participant observation was carried out for four weeks before collection of data to familiarize with the staff and learn their names, in order to observe and to interview them (Streubert and Carpenter, 1999). Since the printing firms were many, each firm had a three day visit, lasting for one hour, forty five minutes per visit. All observations were written down as field notes after each observational session and this turned to be the least intrusive method of collecting information. Questionnaires were sent across the eighteen firms by the researchers. Whilst all other participants were given questionnaire; participants from the Management sample were interviewed. Interviews were audio taped and transcribed. All respondents were obtained through purposeful sampling, as they were present and worked in the various printing firms. Management (n = 20), employees (n = 75) and clients (n = 15). Data were analysed using the SPSS statistical software. There were no missing data. Data were put into tables, for easy interpretation. The study period was March 2013 - March 2014.

3. Results

To explore and identify possible key barriers crippling the printing industry in Ghana, twenty respondents were interviewed from the management sample.

Five broad themes emerged from the analysis of the qualitative data obtained from the interviews. Table 1 provides illustrative quotes from these themes.

- **Under Production**

The "under production" theme incorporated management views that the printing industry is a huge business with several business opportunities, and have the capacity for production, expansion and employment. However, due to unfavourable business environment, playing a significant role in the private sector development strategy has become very impossible.

- **Import of Raw Material**

The "import of raw material" theme dominated managers' interview. Managers were very concerned that not a single raw material for their business could be obtained locally and with the current rise in foreign exchange, high import taxes and high interest rates they always have to pay more for raw materials. This according to them is gradually crippling the printing industry.

- **Reservation about Policies**

On the "policies reservation theme" managers' expressed some reservations about the necessity and relevance of the 1952 UNESCO convention policy in Ghana in 2014. According to them, it does not favour the local printing industry but rather help to strengthen the economy of developed countries at the expense of ours.

They also expressed uncertainty about the government's own policies as nothing has changed since the implementation of the private sector development initiative.

- **Non stakeholder theme**

With regard to the "non stakeholder theme" managers' acknowledged that their relationship with the Education authorities is better than before, but they only sort for help from the local printing industry when foreign printers are not able to meet deadlines for textbooks delivery; and that they do not see the printing industry as partners in quality education.

- **Development of Technology theme**

Another grave concern expressed by the managers is the "digital economy theme" involving the increasing use of online services by businesses and the community to access and distribute information. They lamented that the digital economy has reduced dependency on traditional methods of accessing and distributing information through ink and paper (newspapers, magazines, sales catalogues, billing statements, etc), hence crippling the growth of the printing industry.

Theme	Illustrative Quotes
Under production	The aim of every business is to grow and have branches all over the country, but the business environment in this country is not favourable to achieve this. (interview 2) Throughout my 18 years business carrier I have never seen the printing industry in such a low spirit with the frequent light offs. The business is completely standstill. (interview 3) I think the local printing industry must be allowed to publish all educational materials for business expansion and to be able to employ graduates. (interview 5)
Import of raw material	Look, the printing industry does not use any local raw material, with the exception of labour and management, everything is imported. Look at the Dollar rate, look at the import duties. These are our worries. (interview 3) It will definitely not be easy for an industry importing all equipment and materials for its business in this kind of harsh business environment.(interview 4)
Reservation about policies	I am aware of that policy but I do not think UNESCO want to help local industries in developing countries. (interview 6) What interest has UNESCO in local business in Ghana? Well, I'm not sure. (interview 6) Do you think this policy is there to help us? My personal view on this policy is that, it is outdated and must be changed to favour developing countries, (interview 7) Where is the private sector development initiative they are talking about? They are not friendly to our business. (interview 8)
Non stakeholder in education	I do not understand why a government that wants the private sector to develop and employ graduates will sideline the local printing industry when it comes to printing of educational materials. (interview 8) I am of the view that the textbook policy has not been fully implemented and that is having negative impact on our business. (interview 8) Since I set up this business I have never printed a single government textbook. If they want us to employ people they have to give us work to do. (interview 5)
Development of Technology	In the past, information was obtained from printed papers, but now people are getting information from the internet and many people do not buy news papers as before, so we have less to print. (interview 3) Due to technology, most organizations and individuals have their own printers which they connect to their computers and print their stuff, but before that, we were doing all their printing. This has greatly reduced our work. (interview 3)

*Table 1: Quotes from managers illustrating five major themes on barriers crippling Ghana's Printing Industry
Source: Field Data March 2013 - March 2014.*

This section describes and discusses the findings of the study based on the distribution of questionnaire.

Average Number of Staff	Frequency	Percentage (%)
1 – 2	10	56
10 – 20	5	27
20 and above	3	17
Total	18	100

*Table 2: Average Number of Staff
Source: Field Data March 2013 - March 2014*

From Table 2, the staff strength for the various printing firms suggest that 10 (56%) of the printing firms employ a maximum of 10 staff, 5 (27%) employ between 10 to 20 staffs and 3 (17%) of them employ more than 20 staffs.

This suggests that almost 84% of the printing firms employ less than twenty people. This attests to the fact that the Ghanaian printing industry predominantly consists of small and medium-sized companies.

Services Provided	Frequency	Percentage (%)
Prepress only	5	28
Press only	7	39
Post press only	2	11
Two or more services	4	22
Total	18	100

Table 3: Services Provided by the Printing Firms

Source: Field Data March 2013 - March 2014.

On services provided by these printing firms, there is a strong correlation between printing firms and services rendered. Seven (39%) of these printing firms were engaged in only press services, 5 (28%) were offering pre-press services such as typesetting, graphic designing, colour separation, plate making etc, and 4 (22%) of them were also engaged in two or more services. The post press services was identified as the least services rendered accounting for 4 (11%) of the distribution. Even though this scenario was not expected, it suited objectives of the study as most of the services fell within the group of services identified during the study. From the above statistics it can be deduced that prepress and printing, which are vital lithographic printing processes are the most services offered by the printing firms in Accra.

Raw Material Used	Frequency	Percentage (%)
Paper, ink plate and film	86	80
Fountain solution, vanish, gum Arabic, roller wash, cleaning agents	22	20
Total	108	100

Table 4: Raw Material Used in the Ghana Printing Industry

Source: Field Data March 2013 - March 2014

Considering raw materials used by the printing firms, the data analysis as presented in Table 4 suggests that, the dominant raw material for the industry is Paper, Ink, Plate and film 86 (about 80%) out of the total 108 entries indicated that they use Paper and Ink, Plate and film to produce diverse products. The remaining 22 (20%) entries indicated that they use fountain solution, vanish, gum Arabic, roller wash and cleaning detergents etc.

Sources of Raw Material	Frequency	Percentage (%)
Imported	102	94
Sources not known	6	6
Local raw materials	0	0
Total	108	100

Table 5: Sources of Raw Material for the Ghanaian Printing Industry

Source: Field Data March 2013 - March 2014

On the source of raw materials used, Table 5 indicates that imported raw material dominates the raw material source in the industry. One hundred and two (102) constituting about 94% of the responses confirmed this, while 6 responses constituting 6% have no idea about where the raw materials they use are manufactured. This implies that barely every material used in the Ghanaian printing industry is imported into the country.

Government Patronage	Frequency	Percentage (%)
Yes	6	33
No	12	67
Total	18	100

Table 6: Government Patronage

Source: Field Data March 2013 - March 2014

The study in Table 6 above also revealed that, 6 out of the 18 printing firms answered in the affirmative because a Minister or other government officials print(s) from them; but could not determine whether or not it was a government request.

A total of 12 printing firms, representing (67%) said they have never had any government participation in their businesses and had never won any government contracts. This clearly shows that the taste for printing in Ghana is basically by individual and corporate interest.

	Frequency	Percentage (%)
Personal savings	11	61
loans, grants and donations	7	39
government subventions	0	0
Total	18	100

Table 7: Financing business/job within the local printing industry
Source: Field Data March 2013 - March 2014

Data from Table 7 indicates that financing business within Ghana's printing industry is mostly through personal savings, which constitutes about 11(61%). About 7 (39%) obtain support in the form of loans, grants and donations. However, there was no response on government subventions. The results suggest that the advancement of this industry dependent essentially on individuals financial means.

The ratio of press engineers to printing firms in the Accra Metropolis	Frequency	Percentage (%)
1:5	5	28
1:10	10	56
1:20	3	16
Total	18	100

Table 8: The ratio of press engineers to printing firms in the Accra Metropolis
Source: Field Data March 2013 - March 2014

On the general idea of the ratio of press engineers to printing firms in the Greater Accra Region, Table 8 shows that 10 (56%) of the respondents were of the view that 1:10 best describes the ratio of press engineers to the number of printing firms in the region, 5 (28%) were relatively optimistic of the ratio 1:5 and 3 (16%) believed that 1:20 describes it all. The above Tabular analysis shows that there is insignificant number of press engineers to printing firms in the region; therefore there is the need to train more qualified engineers for maintenance purposes and other job related issues.

- **Demographic Characteristics of Employees**

Gender	Frequency	Percentage (%)
Male	69	92
Female	6	8
Total	75	100

Table 9: Gender of Employees in the Printing Firms
Source: Field Data March 2013 - March 2014

In Table 9, out of the total number of 75 employees sampled, the number of males out numbers their female counterparts by 69 (92%). This demonstrates that the printing industry in Ghana is a male dominated sector. It could also mean that generally females are not interested in working in the Printing Industry due to the vigorous nature of the machines used. Their disinterests might have been stimulated by the dwindling fortunes of the industry.

Age Group	Frequency	Percentage (%)
Below 18 years	3	4
18 - 25 years	29	39
26 - 30 years	15	20
31 - 35 years	11	15
36 - 40 years	8	11
41 - 45 years	5	6
46 years and above	4	5
Total	75	100

Table 10: Age Group of Respondents
Source: Field Data March 2013 - March 2014

On the age group of employees from Table ten, 68 (85%) constitutes the youth with varied age range between 18 and 40. This is the energetic group within any economy whose services could be tapped to bring about massive development. The aged group of 40 years and above is quite significant within the industry and have helped to keep the indigenous practices to date while helping to unveil and document the rich history behind Ghanaian printing industry. This group (aged 41 and above) constitutes about 9 (11%) of the sample. Children below the age of 18 (4%) are on the low side in the printing industry.

Educational Level	Frequency	Percentage (%)
Junior High	28	37
Senior High	15	20
Tertiary	10	13
Middle School	16	21
Others	6	9
Total	75	100

*Table 11: Educational Level of Employees
Source: Field Data March 2013 - March 2014*

On education, Table 11 indicates that 37% have Basic education, 21% were Middle school leavers, 20% had Senior High education, 13% had Tertiary education, while 9% constitutes those who have never been to school or school drop outs at primary level. It is clear from the percentages that, the majority of respondents within the industry constitute a class with low academic status. It is therefore safe to state that this might affect their understanding in terms of issues that require some level of academic reasoning.

Mode of Acquisition of Skills	Frequency	Percentage (%)
Trade Transfer	39	52
Apprenticeship	31	41
Formal Education	5	7
Total	75	100

*Table 12: Mode of Acquisition of Skills in the Printing Industry
Source: Field Data March 2013 - March 2014*

From Table 12, it is quite clear that, the mode of acquisition of skills in the local printing industry within the Ghanaian set up is mainly through trade transfer and apprenticeship. It also has an insignificant number with formal education in the printing industry. Trade transfer constitutes about 52% while apprenticeship is about 41% and formal education forming about 7% of the total responses sampled.

- **Presentation of Responses from Clients**

Perception	Frequency	Percentage (%)
Cost of Printing	3	20
Cost of Printing Materials	7	47
Capacity of printing industry	5	33
Total	15	100

*Table 13: Perception of Printing Industry in Ghana
Source: Field Data March 2013 - March 2014*

To obtain a critical insight of the current state of the local printing industry, the study included client's perception of printing in Ghana.

Out of the 15 accessible respondents, 7 (47%) were of the view that the cost of printing materials such as paper, ink, film, plate etc is militating against the growth of the industry at large, 5 (33%) of the respondents indicated that the industry had the capacity to print while 3 (20%) of the respondents stated that the cost of printing in the country is an issue of great concern. This was attributed to the high cost of printing materials.

4. Results from the Study

In this study, eighteen printing firms in Accra approached were able to unearth a number of challenges grappling the growth of the printing industry. The observation, interview and questionnaire helped to reveal the actual challenges. It was disclosed that, most of the printing industries are producing below capacity and are unable to expand their business to employ more people due to unfavourable business environment which include limited or no support from Government, importation of all raw materials, rising cost of import tax, high dollar rate, high interest rate from bankers, development of technology, unfavourable and unfriendly policies and sidelining by the Ministry of Education.

Notably prepress and printing are the most services offered by the printing firms in Accra. Almost 84% of the printing firms employ less than twenty people. However, this attests to the fact that the Ghanaian printing industry predominantly consist of small and medium-sized companies. A variety of raw materials are used by these printing firms, the most essential raw material being paper, ink, plate and film. One hundred and two (102) constituting about 94% of the responses confirmed that all inputs used by the printing firms are imported. This implies that barely every material used in the Ghanaian printing industry is imported into the country.

Large machines, equipment and tools and other raw materials which consist of paper of different grades and thickness, ink and films, cleaning materials and various chemicals are imported from Germany, France, UK, India, Dubai, China, Singapore and South Africa. On the issue of government patronage of Ghanaian printers' services, a total of 12 printing firms, representing (67%) said they have never had any government participation in their business and have never won any government contracts. This clearly shows that job of printing in Ghana is basically by individual and corporate bodies. The study also revealed that most of these printing firms are self financed with little or no Government support. The lack of adequate business financing schemes within the printing industry is having adverse effect on their sustenance, expansion and output.

The problem of adequate printing engineers to maintain equipment was also established, as 56% of the respondents were of the view that 1:10 best describes the ratio of press engineers to the number of printing firms in the region. The analysis shows that there is insignificant number of press engineers to printing firms in the Greater Accra region; this is of great concern if the printing industry is to function well. The printing industry is a male dominated activity as 92% of employees were males. Also, (85%) of the employees constitutes the youth with varied age range between 18 and 40. This is the energetic group within any economy whose services could be tapped to bring about development.

On the educational level of employees, 37% have Basic Education, 21% Middle school leavers, 20% Senior High education, 13% Tertiary education, while 9% constitute those who have never been to school or school drop outs at primary level. It is clear from this analysis that, the majority of respondents within the industry constitute a class with low academic status. It is therefore easy to state that this might affect their understanding in terms of issues that require some level of academic reasoning.

This is also reflected in the mode of acquisition of skills analysis. Managers also saw the growing use of technology as a big threat to their business as a lot of businesses and individuals who used to patronize their services now have their own computers and printers at home and offices to print official documents.

To obtain a broader insight into the barriers hindering the progress of the local printing industry, the study included client's perception of printing in Ghana. Concerns raised included rising cost of raw material and rising cost of printing in Ghana. However, clients expressed confidence in the printing industry.

5. Discussion

In order to implement measures to eradicate barriers crippling the printing industry, there is the need to first explore, identify and understand the nature of the challenges and their impact on the printing industry. In this study, managers, employees and clients of printing industries emotionally expressed their concerns about the inability of the printing industry to live up to expectation.

The printing industry was described as a lucrative business with good opportunity for related businesses like bookshops, education, publishing industry, newspapers and packages. Therefore, any adverse effect on the printing industry automatically has a negative impact on all businesses that rely extensively on printed products for a great deal of their business. This was confirmed through the responses from clients who patronize the printing business.

Overall, these printing firms appeared to have a lot of challenges that need to be addressed to sustain and develop the industry.

With the exception of labour and management, the local printing industry imports all equipment and materials. At the moment, Ghana does not produce any printing paper and depends entirely on imported papers.

Since the only way the printing industry can survive is through the importation of equipment and materials, the current poor performance of the Ghana currency against the major currencies and the high import duty on paper (32%) has resulted in the growing cost of raw materials, cessation or reduction in newspaper production with a lot of manuscripts stacked up. In the midst of the growing cost of raw materials, the printing industry cannot grow, unless it is assured of regular supply of printing materials at reasonable prices. In short, the paper situation has reached an alarming state and calls for pragmatic measures at both national and international levels to address it.

Talking about the importation of all equipment and materials, paper is the most essential commodity in the printing industry. To address the paper problem, Ghana needs to have a Pulp and Paper industry. Paper is made from wood fibre and Ghana exports timber to other parts of the world. Ghana could build a paper industry and convert some of these timbers into paper.

Apart from timber, the Forestry Research Institute of Ghana (FORIG), of the Centre for Scientific and Industrial Research (CSIR), made a technological breakthrough in the use of bamboo to produce paper. In other parts of the world jute, sugar cane, and cotton or manila fibres are used in paper production. In Ghana there is the prospect of obtaining papers from gmelina species. As Dr Sekyere (2011) rightly said, "if Ghana as a nation does not want to be begging for everything... The Government lip - service attitude towards science and technology (micro-molecular chemistry) needs to change, as it is the source through which the pulp and paper industry in addition to plastic manufacturing can be achieved" (Ghanaian times, 2011).

Then again, the study revealed that as a result of the 1952 UNESCO convention 'Against Discrimination in Education', to which Ghana is a signatory, imported textbooks are exempted from duty tax. The convention, adopted in 1962, requires signatory countries to ensure the free importation of educational materials from member countries in an effort to achieve a worldwide universal access to education.

Although the study acknowledges the importance of universal access to education worldwide as contained in the 1952 UNESCO Convention, the consequences of its implementation on local businesses should not be overlooked. At the moment, a lot of publishers and the government have a preference to print in foreign countries and import, as that is relatively cheaper than printing in Ghana.

With the 1952 UNESCO convention, the study is of the view that before the implementation of any convention, it will be very difficult to envisage problems that might crop up, but with time, when challenges are identified, measures should be put in place to address them. This study is of the view that the world keeps on changing and new challenges will emerge that may challenge some of the content of such conventions. There is therefore the need for UNESCO and member countries to revisit this convention and come up with a suitable convention that is capable of innovating, adapting and responding to the changing needs of member countries. This should include strategic monitoring and evaluation to ensure that all member countries are benefiting from the deal. In 1952 when this convention was declared, Ghana's printing industry at that time might not be in a position to produce all the textbooks for our educational system, making the convention helpful.

Currently, Ghana has a vibrant printing industry with 127 members across the country, with firms ranging from small, medium and large, with the capacity to print all the textbooks the country needs in addition to the capacity to produce for the international market (Ayariga, 2010).

For example the Graphic Communications Group Limited, Safeway Printing Work Limited, Buck Press, TYPE Company Limited, Sakoa Press and Yasarko among over a hundred printing firms in Ghana have the capacity to produce all the educational materials for the education system. What is amazing about this 62 year old convention is that, throughout the literature search, nobody seems to notice that the free importation of textbook aspect of the convention is no longer needed in Ghana and that the convention needs to be amended to suit current conditions.

Currently, what the textbook aspect of the 1955 UNESCO convention is doing for Ghana is that, the 80:20 textbook share in favour of foreign printers, as stated by Ashigbey (2013), are being printed overseas to avoid tax payment, thus creating jobs for other countries, boosting their businesses and contributing to the economic growth of these countries at the expense of the local printing industry, the people and economy of Ghana. This contravenes the government's own policy that 60 per cent of textbooks should be printed locally (Ayariga, 2010). The UNESCO is a world body with developing countries at heart, therefore measures should be taken to draw the country representatives' attention to the need to amend, repeal or abolish the 1952 convention; otherwise the unemployment situation in the country will be very difficult to address and it will not be easy for Ghana to achieve the Golden Age of Business target.

As the private sector is the engine of growth, it is important to remove every bottleneck in the way of the local printing industry to promote growth and as Hagan rightly said "It takes only one person's committed vision to turn the hands of time for the improvement of the Printing Industry in Ghana" (Hagan; President, GHAPPCA, Northern Sector, 2011), and the time to do that is now.

Another challenge for the printing industry is lack of expertise. With the problem of expertise, currently three institutions namely Kwame Nkrumah University of Science and Technology, Takoradi and Tamale Polytechnics are training the needed expertise who can use computer software and other equipment, analyze problems, make decisions, and have a solid understanding of the entire production process. The actual problem is that, the printing industries cannot afford to pay them as pointed out by Mr Buckman, when the then Deputy Trade Minister, Mahama Ayariga on a tour of textbook printing firms visited Buckpress (myjoyonline, 2014) According to Mr. Buckman, Buck Press was producing far below capacity of 30%, and this has resulted in the laying-off of some workers to help the company break even. According to Buckman, when the job is there graduates would be employed to provide the needed expertise for the printing industry. However, the study acknowledges the need for trained expertise with innovative ideas to use and maintain the machines.

On the issue of lack of financial support, the importance of capital in the development of any industry cannot be over emphasized, as it is the backbone for the generation of resources, wealth and development.

Financial support for the printing industry in Ghana is woefully inadequate, therefore the study is stressing on the need for government and all stake holders to provide the industry with adequate financial support for the expansion of their businesses, purchasing of modern and quality materials, tools and equipment. In addition to this, to be able to effectively improve expertise, skill, quality of products, adequate financial support is crucial.

Lack of government orders for printing books and unfair distribution of textbooks printing were identified as barriers to development. All members of the printing industry stressed the lack of Government contracts as the major contribution to the poor performance of the printing industry in job creation (Buckman, 2010; Appiah Berko, 2012; Ashigbey, 2013; Ofosu-Mensah, 2013). On the issue of lack of Government contracts, during the literature search it was observed that a sizeable number of research, articles, national and international conferences and appeals from the publishing and printing industries have been advocating for this for years with very little success. If Government is committed to private sector development, concerned about graduate unemployment and slow economic growth, then the printing industry need to have not just the 50% or 60% allocation of textbooks, packaging materials and phone recharge cards the printing industry is advocating for but a 100% quota, because the excuse with capacity to produce is now history and does not exist.

Considering the unfair distribution of textbooks printing, the Deputy Ministers attention should be drawn to this. He need to make similar visits to all the small and medium size printing firms across the country to familiarize himself with their activities just as he did at the larger firms, because in economic growth, every little counts. Knowing the capacity of every printing firm will help in the fare distribution of textbook printing.

Another challenge revealed by this study is the continuing development of the digital economy. The increasing use of online services by businesses and the community to access and distribute information is reducing dependence on traditional methods of ink and paper – newspapers, magazines, sales catalogues, billing statements, etc.

With the problem associated with digital economy, the study appreciates and acknowledges that fact, but the argument is that, even in the developed countries where digital economy abounds, the printing industry is still making significant contribution to economic development as schools still use printed textbooks. In the UK for example, every five year old reception pupil (Kindergarten) come home every day with one phonic book and one reading book, which is two books a day. If there are sixty days in a term, this child will read sixty phonic books and sixty story books, totally one hundred and twenty books per term. Multiply this number by the three terms in the year and the answer will be three hundred and sixty phonic and story books altogether. According to the Minister of Education, currently, there are five million pupils in basic schools in Ghana (Ghana News Agency, 2014). If all basic school pupils in Ghana are to be provided with one phonic book and one reading book every day like their counterparts in the UK, how many copies will that be? In addition to the English phonic and reading books, Ghana is blessed with different local languages. If the five million pupils in our basic schools are to be provided with one phonic book and one reading book from the various Ghanaian languages every day in addition to the English ones, and if the government will allow the local printing industry to print all these books, will the printing industry ever run out of work? Will they be producing below capacity? Are workers going to be laid off? As already stated, the problem of digital economy has come to stay but there are a lot of opportunities around it, especially in the Education sector. However, the local printing industry needs to work harder to go digital as well.

Last but not the least challenge is the constant power cuts. With this problem Government need to work hard to ensure constant power supply for effective and efficient run of the printing industry converters association etc. However, if printing firms have enough work to do, they will be in a position to provide their businesses with generators for emergencies.

The problems of the printing industry are real, but complex. It will require a joint effort by unions, organizations, professional bodies, voluntary organizations, government, the international community, the media and every single Ghanaian, including students and pupils to address. What this study would like to suggest to boost the printing industry in Ghana is the "Donate a Book Drive." This is an initiative appealing to every individual person in Ghana, irrespective of status to buy and donate one or more textbooks to schools. This donation can be yearly, quarterly, monthly, or weekly, depending on the financial strength of the individual. This initiative is not only going to boost the printing industry, but will also promote quality education. The media houses will play a crucial role in this initiative through free airtime promotion for the initiative and commending and showing donors on TV.

The printing industry is huge and if given the needed support, could be a dynamic force in the economic growth to reduce graduate unemployment.

The study highlighted problems preventing the printing industry from developing and contributing meaningfully to national development to reduce graduate unemployment. This study is limited to a purposive sample of 22.86% of the printing firms in Ghana and the results may not be generalise to other printing firms, as all the firms studied were small scale firms. Further studies might explore the impact of these problems on related industries and the tensions that exist between the printing industry and the Government/Ministry of Education.

6. Recommendations

Currently, Ghana has a vibrant printing industry, capable of providing national and international quality services. What the industry requires is the support of government and stakeholders to stimulate expansion.

The government could support the local printing industry through the following recommendations:

- Generation of internal funds devoid of IMF restrictions through the "Donate a book" initiative to ensure a 100% production of textbooks by local printing industry.
- Administrative and financial support for the establishment of the proposed pilot plant for manufacturing paper and for research in paper technology by the Forest Products Research Institute (CSIR).
- A legislation to coerce Government and the Ministry of Education to ensure a 100% production of textbooks, packaging materials and phone recharge cards by the local printing industry.
- Removal of import tax on imported raw materials for educational products.
- Amendment of UNESCO convention on free importation of textbooks.
- Establishment of production capacity of printing firms across the country for fair distribution of textbook printing.
- Exploring possibilities of obtaining gift paper from donor countries for the printing of school textbooks.
- Adequate import licenses to printers for the importation of equipment, spare parts and materials for book-printing.
- Provision of special credit facilities to local book printers by commercial banks on easy terms.
- Release of special grants by government for the establishment of school libraries and refurbishment of public libraries.
- Encouragement of research works and developmental programmes on printing; this will serve as a forum for discussion and exchange of knowledge between persons interested in printing.

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