



The State of Entrepreneurship in Radiography Practice in Nigeria

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ABSTRACT

The entrepreneurial ventures in medical radiography practice in Nigeria has been underdeveloped over the last two decades and there is paucity of data on the current state of affairs. The objective of this study is to assess the current state of clinical entrepreneurship practices in Radio-diagnostic centres in Nigeria. A systematic review of research works conducted by researchers who x-rayed entrepreneurship strides in medical radiography was done. Some relevant literature in academic journals with good impact factors were reviewed and documented. Search terms such as entrepreneurship, radiography, current state was used. Findings were synthesized from appraisal and analysis of literature. Our findings showed that entrepreneurship practices in medical radiography were under-developed and plagued by several problems amongst which are poor leadership skills, lack of well-trained manpower, inadequate power supply, poor maintenance culture, low patronage, high cost of services delivery, lack of local content, low pace of technology transfer, unstable economic conditions, high cost of equipment, cyber-security issues, as well as poor financial support. It is concluded that entrepreneurship ventures and practices in medical radiography services in Nigeria were underutilized and operating sub-optimally. There is need to embrace partnerships, credit financing, outcome-based trainings and the provision of good business policies and economic conditions by the government that will promote the growth of small businesses.

Keywords: Entrepreneurship, Radiography practice, Nigeria

INTRODUCTION

Most big economies of the world are anchored on the development and sustenance of strong entrepreneurial ventures. The relevance of entrepreneurship in the development of strong economic growth in a nation has been described by scholars such as Davidsson and colleagues [1] as overwhelming. This underscores the need to provide relevant training and education to prospective entrepreneurs to start their own businesses. Also, practicing entrepreneurs require further educational trainings to enhance their performance and productivity. These may take the form of workshops, conferences, seminars or short courses that will expose the entrepreneurs to current advances in their respective markets and adapt to changes in the

market to survive. A recent study indicate that most entrepreneurs tend to lag behind in their entrepreneurial ventures due to Lack of managerial skills which they ought to have acquired through further educational advancements according to Okpaleke & colleagues [2]. The acquisition of these educational knowledge and skills will enable the entrepreneurs not only to succeed as an entrepreneur but to also grow and expand their businesses as well. To grow and develop their business, the entrepreneurs will need to be creative, innovative as well as adapt to new technologies in the industry. These can only be possible through some forms of education. To achieve these targets, some countries have enacted legislation to entrench entrepreneurship education into the requirements for setting up small businesses. Bruyat & Julien [3] reported that such countries especially in Europe recognize the values and significance of strong entrepreneurship base in an economy. In fact, small and medium scale enterprises and other smaller business concerns can contribute significantly to the Gross Domestic product (GDP) and help to shape the economy of nations especially in developing countries. Entrepreneurship also led to self fulfillment and reduces unemployment significantly. Notably, some big firms of today started as small business or as entrepreneurs. This underscores why these businesses need government support and conducive environment to thrive. Otherwise, the business will experience some difficulties and fail.

However, it is obvious that some small businesses fail while others blossom under the same market conditions. This can be explained from the point of view that firms generally face both internal and external barriers in an attempt to grow. The internal barriers to entrepreneurship growth are psychological or motivational factors, good management, funding, low orders, sales/marketing ability, as well poor product or service. The external barriers affecting businesses include availability of adequate skilled labour, nature of competition and market structure, government policy and stability of economic conditions, accessibility of markets and government legislation. Studies have also shown that despite unfavorable market forces and conditions, some firms were able to stay afloat and grow. Such companies that grew their firms during unfavorable economic climate and recession in the past decade include but are not limited to the Cable News network (CNN), Dangote Group Nigeria Limited and Hewlett – Packard (HP). Despite the growth recorded by these firms some other firms folded up or entered into mergers and acquisitions especially in Nigeria where the country has witnessed two periods of recession in the last decade.

Most of the reviewed literature indicated that motivation, availability of recourses and market opportunities are key issues to evaluate when considering the growth of businesses! in keeping with the findings of Cooney [4]. In addition, Orse [5], in a related study found out that in firms where the owner had stated earlier that they wanted to grow their business and actually made moves to grow their businesses always succeeded unlike those who did not state their intention to pursue business growth. This shows that determination, dedication and being optimistic are essential ingredients for the growth of any business venture.

There are several opportunities for entrepreneurship ventures and growth in medical radiography in Nigeria. Medical radiography involves the use of radiant energies to interrogate different structures of the body to produces quality radiographic images for diagnosis or therapy. Entrepreneurship opportunities abound in many areas of the radiography profession such as contrast media production and sales including chemicals like processing chemicals, equipment manufacture, assembly or sales, X ray film recycling, silver recovery, repairs and

servicing of equipment. Others include the production and sale of imaging accessories or kits, marketing or engaging in quality assurance services and sale of X- ray films or film recording media, Radiation protection services and so on. Despite these opportunities, several scholars including Okpaleke and colleagues [2] are of the opinion that the opportunities in the imaging department are yet to be fully tapped especially in Nigeria. This underpins the need to identify the current state of entrepreneurship in the imaging departments nationwide hence this study.

METHODS

A systematic review of research works conducted by researchers who x-rayed entrepreneurship strides in medical radiography was done. Some relevant literature in academic journals with good impact factors were reviewed and documented. Search terms such as entrepreneurship, radiography, current state was used. Findings were synthesized from appraisal and analysis of literature.

FACTORS AFFECTING THE GROWTH OF ENTREPRENEURSHIP IN NIGERIA

The following elements has been identified as the major factors affecting the development and growth of entrepreneurship in Nigeria from reviewed literature as reported by Ojo [6], Okpaleke & colleagues [2], and Cooney [4].

Unwillingness to Change

The inability of the entrepreneur to adapt to changes in the imaging industry may be a reason for poor performance and failure. This underscores the recent review of standards of proficiency for radiographers and other healthcare professionals in the United Kingdom (UK). The review is contained in a publication of the Health and Professions Council (HCPC) publication [7] which expressly stated that Healthcare professionals including medical radiographers are to adapt digital skills and new technologies relevant to their practices in order to optimizes the care and services rendered to patients. Most department are now going digital and inability to train, acquire or review existing digital imaging technologies for better diagnostic and treatment outcomes may result to poor diagnostic /treatment outcomes or failure.

Lack of Management Skills

Management skills are employed by entrepreneurs to grow their businesses. These skills can be developed informally, through experiences and by educational attainment or exposure. Reviewed literature showed that most entrepreneurs in imaging departments nationwide have poor managerial skills. Other studies especially Okpaleke and colleagues [2] opined that only few radiographers who own diagnostic centres have been involved in educational programs to improve their managerial skills.

Poor Record Keeping

The inability of radiography departments to keep accurate patient records and record of sales or medical supplies has negatively affected their businesses. Instances abound where patient records were misplaced carelessly, or in worst cases exchanged with another patient records leading to misdiagnosis and false positive/negative results. These will lead to poor management of patient's clinical conditions and worsening of patient's medical conditions or even death. There are several litigations bothering on inappropriate record keeping, and

handling of confidential patients records with the radiography centre paying heavy fines and court process leading to some of them winding up or suspension of their licensees.

Lack of Commitment

Commitment and dedication of the entrepreneur to his/her business ventures are vital for success. It requires sacrifices and hardwork to create a niche in the industry and have competitive advantage. However, when the radiographer entrepreneur is not committed to the day to day running of the business, there is a tendency for failure of the business because of lack of growth or sales.

Under-Pricing of Services

When a product or service is underpriced to boost sales or attract patients, there is tendency for the business to encounter operational problems or become bankrupt. Many scholars including Mario & Christain [4] are of the view that most business engage in price cuts in order to grow their customer base or gain entry into the market but this can have harmful effects on the running capital of entrepreneurial businesses.

Inadequate Marketing Strategy

A marketing strategy refers to the total game plan of an entrepreneur to get to his /her prospective clients or customer and turning them into active customers for their services or products. This strategy is with the sole aim of growing the customer portfolio of the business. This will in turn lead to increase sales and profit. Most radiography outfits in Nigeria are known to embrace poor marketing strategy which does not propagate the entrepreneurs value proposition, key branding messaging, information about likely customer demographics, or certain other features that attract and retain customers in the short or long run.

Poor Financial Management

Reviewed literature showed that poor financial controls of entrepreneur's business activities is a panacea for failure which aligns with the findings of Cooney [4]. It creates poor financial controls leading to wastes and low credit ratings which have been noted to be associated with some radiography imaging facilities.

Low Liquidity Profile

Entrepreneurs often face liquidity crisis more than big firms due to the higher liquidity risks associated with small businesses. Start up Radiography facilities lack institutional interest and ownership needed to generate the required level of stock liquidity. Generally, the market is biased against such high liquidity concerns as nobody wants to get involved in a business with low sales or profitability. As a result, many radiography outfits in Nigeria have limited access to credit facilities and solely depends solely on the entrepreneur's capital or family/friends support to be able to remain in business or fail to exist.

Poor Power Supply and increased Running Cost

Poor power supply and regular power outages has negative effects on the operations of radiography imaging centers nationwide probably because their operation depends heavily on electricity. Uhunmwagho & Okedu [8] in their study found out that most private and public radiography outfits generate their own electricity and this increases their running cost. Those

entrepreneurs who cannot meet up with sourcing and financing independent power supply for their businesses invariably witness low patronage.

Poor Credit Facilities

Reviewed literature shows that credit support to the private sector especially entrepreneurs has slowed down considerably over the past five years whereas banks has extended public sector credit financing to more than six folds within the same period. This confirms the findings of Ojo [6] who stated that the amount of credit facilities released by the central Bank of Nigeria (CBN) to the private and public sectors of the economy between 2018 and 2023 increased by 85.6%. and 516% respectively. This implies that less funds are available to the real sector of the economy or it may be available at high cost. This threatens industrialization, as well as the existences and growth of entrepreneurs. Also, the contribution of small and medium enterprises to the National Gross Domestic Product (GDP) has taken a free fall to about 3% within the same period. This has been collaborated in a recent publication by the African Development Bank [9].

Unfavorable Economic Climate

Nigerian entrepreneurs especially those in the radiography sub-sector of the economy are operating under harsh economic conditions occasioned by an economy burdened with high inflationary pressure, high debt service ratio, weak infrastructure base and corruption. Apart from borrowings from the international market, the government has increased borrowings from the domestic market over the last five years which crowded out investment funds from the productive real sector of the economy. According to Ojo [6], unfavourable economic climate also stifles entrepreneurs and their businesses of the resources they could have borrowed to grow and expand their businesses.

Cybersecurity Issues

The radiography departments worldwide are becoming increasingly digital in nature with many conventional imaging systems being converted or replace by digital imaging platforms. These include digital systems such as the Computed Radiography, Computed Tomography, Positron Emission Tomography (PET), Magnetic Resonance Imaging Systems, Mammography, Positron Emission Tomography. These systems generate large amount of patient's data which are stored confidentially in the hospital or clinic information systems. These data are usually extracted for the physician's use for the management of their patients when the need arises. However, many attacks have been recorded targeting medical patient's records and file formats. Significant attacks have been launched against the digital and communication systems generally used in the radiology departments especially the picture archiving and communication systems (PACS) and the medical imaging networks. In a related study, Eichelberg and colleagues [10] explained that valuable hospital records including confidential patient's information can be at risk through a compromise of the hospital network, the importation of patient's records from storage media file containing malware, malware embedded in digital imaging and communications in medicine images or reports, malicious manipulation of medical images and malicious network infiltrations of health records. These can wipe out data containing useful patient's records, or crash the image recording networks in these systems leading to irreparable loses. Therefore, there is need to secure and maintain the confidentiality of patient records on radiography imaging systems by incorporating network security guidelines for practitioners on PACS systems in Nigeria.

CONCLUSION

Entrepreneurship ventures and practices in medical radiography services in Nigeria were underutilized and operating sub-optimally. There is need to embrace partnerships, credit financing, outcome-based trainings and the provision of good business policies and economic legislations by the government that will promote the growth of small businesses.

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