

**JOURNAL OF  
APPLIED SCIENCES  
AND DEVELOPMENT  
[JASD]**

*(An international academic research journal)*

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*Editorial*

**Control and management of oil spillage in the Niger Delta area of Nigeria**    *Emodi, Edmund Emeka (PhD)*

**Receding hairlines: Prevalence, importance, causes, prevention and remediations among Nigerian city women**    *O.C. Eneh (Ph.D) and F.I. Ogbuefi-Chima*

**Impediments to community corporate involvement of small and medium enterprises in Enugu, Nigeria**  
*O.C. Eneh (Ph.D)*

**Staff turnover in small and medium enterprises in Enugu, Nigeria**    *J.E. Aliogo and O.C. Eneh (Ph.D)*

**Call for Articles**

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## EDITORIAL

Driven by curiosity and speculation as well as quest for new facts and principles, Pure Sciences stop at the development of general laws of nature and are less concerned with the practicality of their results or finds. Applied sciences take over from there, seeking the practical use of scientific knowledge and, therefore, forming the bridge between sciences and development. With the growth of the chemical and electrical power industries in the 19<sup>th</sup> century, scientific knowledge became of direct use in solving problems and the development of products.

The *Journal of Applied Sciences and Development* was born to publish materials on the areas bordering in the output of Applied Sciences as they relate to development of the society. It is a biannual published April and October beginning from 2010. However, due to high rate of rejection of low-standard papers, we could not publish Volume 1 Number 2 of October 2010. Rather, we rolled the qualified articles to form part of the Volume 2 Number 1-2 of October 2011. As usual, the current Issue, Volume 3 Number 1-2 of October 2012, is loaded with a variety of sound articles covering contemporary issues in Applied Sciences (including Environment, Transport Management, and Health) and Development.

In the first paper, Emeka E. Emodi, former Head, Department of Environmental Studies, Caritas University, Amorji-Nike, Enugu, Nigeria submits that oil spillage is a lingering environmental problem in Nigeria. It is prevalent in the Niger Delta area, where it generates problems between communities and oil companies. Though certain efforts are being made by both the Federal Government of Nigeria and the oil companies in the area, a lot requires to be done to uphold a friendly environment, devoid of rancour. The paper, therefore, presents an overview of the situation in the area, the circumstances bringing about oil spillages, the impacts upon the environment and what could be done to ameliorate the situation.

In the second paper, O.C. Eneh (Ph.D), Senior Research Fellow with the Institute for Development Studies, Enugu Campus, University of Nigeria, Nsukka and F.I. Ogbuefi-Chima, Head, Southeast Zonal Office of the Raw Material Development and Research Council, Enugu submit that women are a very important group in the

family, workplace and society at large. Their concern for good looks affects their emotions, and by multiplier effects, touches other segments of the society. Since the physique of the hair on their heads is an element of their beauty, the study was aimed at establishing the effect of receding hairlines (RHs) on Nigerian city women. Female workers at the Federal Secretariat Complex, Enugu were targeted because they are a miniature group of Nigerian city women. The total population of 193 was reached with questionnaire, and 170 completed copies were returned. The questionnaire had a section on personal information on the participants and another section on technical information. The technical questions sought likert-scale answers: very true (4), true (3), weakly true (2), and false (1). The data were analyzed using the average mean score technique, which also helped to test the hypotheses. Results showed that the proportion of the population of Nigerian city women with RHs is significant. RHs affect the emotions of the women. Nigerian city women are not knowledgeable about the causes of and prevention and remediation for RHs. They are willing to address the issue of RHs, but are financially ill-disposed. It was recommended that non-governmental organizations should enlighten women on the causes of and prevention and remediation for RHs so as to position them to apply inexpensive home remedies to improve their looks and moods through reduction of the incidence of RHs, and thereby reduce frictions in homes and public service domains where women operate.

In the third paper, O.C. Eneh (Ph.D) submits that small and medium enterprises (SMEs) are a principal means of achieving sustainable industrial diversification and equitable development in developing countries, including Nigeria. The need for their contribution to development of host community through corporate social responsibility programmes cannot be over-emphasized. But, SMEs may lack in community corporate involvement (CCI), since reports allude to hostile environment for SMEs in Nigeria, especially regarding ignorance, poor human capital and poor business environment. The study investigated the knowledge of CSR practices of SME operators

### *Editorial*

and community corporate involvements of SMEs in Enugu. The guideline of a regulatory agency was used to select 9 SMEs operating in 6 communities in Enugu. Separate questionnaires were administered to SME operators and town unions presidents. Average mean score technique was used to analyze the likert-scale data and to test the null hypotheses. Findings showed that SME operators are majorly ignorant of CSR practices. SMEs maximize profit for their owners without considering the interests of the host community. They do not look beyond profit to consider the interests of the host community, nor to take responsibility for the impact of the organization's activities on customers, employees and the environment. All SMEs do for host community is to offer a few job opportunities to indigenes. They do not sponsor any development project for the host community, nor discuss with indigenes the strategy for sustainable development of the host community, but occasionally make philanthropic cash donations to individual, family and community activities in the host community. They leave the provision of social services for host community to government and charity organizations. It is recommended that non-governmental organizations should explore avenues to enlighten SME operators and host communities on CSR practices and CCI, as well as their mutual benefits to both the organization and host community.

In the fourth paper, J.E. Aliogo and O.C. Eneh (Ph.D), both of the Institute for Development Studies, Enugu Campus, University of Nigeria, Nsukka, investigated staff turnover in small and medium enterprises (SMEs) in Enugu, Nigeria against the backdrop several reports describing business-unfriendly environment in Nigeria. The brunt of this poor business environment is borne by small and medium enterprises (SMEs) sub-sector, which should be the engine room of the national economy. Reports show that in advanced economies of the West and Asia, poor business environment leads to labour turnover, which in turn, affects enterprises. Could this apply to Nigeria? The study investigated staff turnover, factors of staff turnover intentions and the effects of staff turnover on selected SMEs. The study adopted a multi-stage sampling technique to select targets that meet the criteria of SMEs from membership of groups of organized private sector (OPS) in

Enugu, and to purposively select respondents from staff of selected SMEs. Questionnaire and interview were used to elicit information from respondents, with likert-scaled options. Average mean score technique was adopted to analyze the data and to test the null hypotheses. Findings showed that job stress, job stressors, lack of commitment, job dissatisfaction, organisational instability, personal agency, a sense of powerlessness, locus of control, personal control, economic reasons and role ambiguity are all factors of labour turnover intention; management practices and policies affect staff turnover intention; demographic factors affect staff turnover; and unemployment situation affects staff turnover, which adversely affect production, sales, customer satisfaction and costs of recruitment and training in SMEs. These factors ought to be avoided or minimized for optimum performance of the enterprise.

We thank all our esteemed contributors and enjoin them not to flag in their zeal for research and publishing. We must all not relent in our determination to use research and publishing to confront abounding development challenges in developing countries for the development of the total man. We welcome contributions from across the globe in all cognate disciplines (see *Call for Articles*), as we reiterate our commitment to delay-free and efficient processing of all submissions and their subsequent professional and competitive publishing in hard copy and online.

Best regards.

***Denis Nwachukwu Onwuka***

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## CONTROL AND MANAGEMENT OF OIL SPILLAGE IN THE NIGER DELTA AREA OF NIGERIA

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### ***Abstract***

*Oil spillage is a lingering environmental problem in Nigeria. It is prevalent in the Niger Delta area, where it generates problems between communities and oil companies. Though certain efforts are being made by both the Federal Government of Nigeria and the oil companies in the area, a lot requires to be done to uphold a friendly environment, devoid of rancour. This paper is, therefore, an overview of the situation in the area, the circumstances bringing about oil spillages, the impacts upon the environment and what could be done to ameliorate the situation.*

**Key words:** *Oil spillage, Niger Delta area of Nigeria.*

### **Introduction**

The activities of the oil and gas industry are wide ranging and include the exploration and production of oil and gas. Virtually, all these activities impact adversely on the environment. Since the 1980s, the oil and gas industry emerged on the economic scene as the country's most valuable economic sector for almost half a century, the search for and exploitation of oil deposits have gone on without proper environmental

safeguards in place and being enforced. As a result, the oil industry in Nigeria has maintained a steady and increasing pressure on the environment.

By far the most significant problem in Nigeria in the 21<sup>st</sup> century measured by its human, socio-economic, ecological, and physical impacts is that of concentrated oil pollution in the highly sensitive ecological aquatic environment of the Niger Delta in particular and also in other parts of the coastal zone and off shore (Nwafor, 2006). However, most of the problems emanate through oil spillage in one form or the other. Hence, oil spillage has been one of the greatest environmental problems Nigeria is currently battling with, especially in the Niger Delta area. Oil communities mainly have been at the receiving end of this environmental problem.

### **Oil Spillages and Effects**

The Mobil Oil Spillage in 1998 which resulted in a loss of about 40,000 barrels of crude oil, affected not only marine life in Akwa Ibom State but also in all the communities in the Niger Delta region. Some substances that are lethal in concentration and toxic to aquatic fauna and flora are often released (Glark, 1982) These substances pollute the water bodies by depressing photoplankton's photosynthesis, respiration and growth, kill or bring about developmental abnormalities in zooplankton and the young stages of many aquatic organisms. Odieta, (1999) observed that oil spill in water kills shelfish and finfish by its smothering action, and also the ingested oil may interfere with fish nutrition.

In 1982, at Owa and Abudu in Delta State, the NNPC spillage resulted in oil-logged farmlands and the death of economic crops such as yam seedlings and cassava which left the farmland uncultivated for some time. In Abonnema, Rivers State, the result of a spillage as reported by the Environmental Rights Association, resulted in thick layers of crude oil polluting the water in the centre stretch of the River and Creeks in the various affected communities (Igbo, 2000). The spill adversely affected aquatic creatures in the area (Newswatch Nov. 8, 1999). Defoliation and

eventual death of *Rhizophora* as well as *racemosa* occurred after the spill in mangrove swamps (Ekekwe, 1981, Ekweozor and Snowden, 1985). Amagor (1985) observed that when oil spillages occur on land, such as the Ejamah-Ebuubu oil spill incident near Eleme, Rivers State in 1970 which was not cleaned, farmlands and swamps are heavily impacted, the soil will no longer be fit for farming and streams will no longer be used for fishing.

Oil spillage impacts have ranged from barely tolerable to the utterly disastrous consequences, which include:

- Embitterment of the affected individuals and communities
- Loss of recreational and aesthetic value of water bodies
- Forced population migration
- Impairment of human health
- Worsened rural under development
- Eutrophication of water bodies
- Increase in economic and other burdens entailed in pollution clean up, population re-settlement and other aspects of rehabilitation.
- Destruction or reduction of agricultural and related activities.
- Abandonment of fishing grounds and associated livelihood pursuits
- Emigration of wildlife and the consequent decline of hunting
- Devegetation and other forms of ecological damage
- Loss of fish, crustaceans and other aquatic animals.
- Loss of drinking and industrial water and its consequent importation or derivation at extra cost.
- Degradation of millions of wetland and mangrove forest.

### **Instances and Causes of Spillages**

At Abonnema in Akutu Toru Local Government Area of Rivers State, a spill occurred as a result of Shell's rusty pressure pipeline. A report by Environment Rights Association said "Shell did not make adequate effort to detect the source of the pollution or to stop it" The spillage spread to sagama, krakrama, Elem, Old Bakama as well as to Ifoko in Aseni Toro

Local Government Area of the State (Igbo, 2000). Also Igbo noted that in the same period, Ekakpemre community in Ugheli South Local Government Area of Delta State experienced leakage from pipeline, which resulted in a devastating spill that made over 3,000 women to take to the streets to protest what they described as the careless handling of the spillage by shell petroleum development.

In Akwa Ibom State a Mobile oil spill in 1998 occurred on pipelines conveying crude oil from the company's Idoho production platforms to the Qua Iboe terminal led to a spill of about 400,000 barrels of crude oil spreading from the coast of Akwa Ibom State to as far as Lagos. The spill was as a result of a drop in on the company's pipeline and also as a result of corrosion due to old age of the pipelines (National Concord, May 6 1999).

The Environmental report published by shell petroleum Development Company (SPDC Annual Report) in 1997 noted that Sabotage was by far the most serious cause of oil spillage in SPDC operations in the same year. Indeed, it was also noted that almost all oil spills from SPDC facilities were due to 80% sabotage. Also saboteurs from different communities master-minded the oil spillage estimated at 1500 barrels from a 24 inch pigging manifold at Chanomi Creek in Warri South Local Government Area of Delta State (The Punch, Dec. 31, 1999).

In 1999, a spill due to rupture of crude oil pipeline carrying crude oil from offshore Idoho platform to its terminals was recorded by Mobile (Vanguard May 6, 1999).

In 1999, Odiete observed that about 2330 cubic metres of crude oil spilled every year into the environment, while statistics from the Department of Petroleum Resources (DPR) from 1976 to 1996 showed that 4836 incident resulting in the spillage of about 2.44 million barrels of oil into the environment occurred. Most of these were linked to oil well blow outs, corrosion of pipelines, equipment malfunctioning, and human error during operations, lack of proper maintenance of the equipment and sabotage. Also, as a result of well blowout, in 1980, the largest spillage in

the country, (Funiwa Offshore Blowout) occurred, where about 400,000 barrels of crude oil spewed into the Atlantic Ocean from a Texaco facility and destroyed 340 hectares of mangroves (Odiye, 1999).

However, in some cases, spillages due to sabotages are as a result of the fact that many oil mineral producing communities have suffered unbelievable injustice. They are denied of many entitlements to their land by the land use Act, deprived of adequate revenue accruing to the federation from the export of oil extracted from native community land. Besides, some areas have been almost excluded from Federal Government Developments, while other parts are well developed. Furthermore, with the open looting of the federal treasury in recent times, the host communities have resorted to sporadic sabotage of pipelines and kidnapping as a means of forcing oil companies as well as government to good care of the area. However, with the recent Amnesty programme of the federal government, instances of spillages due to sabotages have been drastically reduced.

Hence, oil spillage may be brought about by;

- Breakdown, or damage to oil tankers or storage vessels
- Damage to or leakage of oil pipelines
- Oil tank overflow
- Rupture or failure of loading, floating or under-buoy hoses
- Broken flange connections or flow lines.

### **Government's Effort to Remediate the Hazards**

The Federal Government of Nigeria issued new environmental conditions to be met by oil companies in their areas of operation in 1999. This was in response to the problems of environmental neglect done by these oil companies. Hence, the Federal Government of Nigeria in November 1999 read the riot act to the oil companies. The first time in many years (Newswatch, Nov. 8, 1999), the oil companies were to hasten the provision of poverty alleviation and community based project.

Oil companies were accused of igniting the crisis in the Niger Delta by the then minister of state in the ministry of Environment. This according to the minister they did by rebuffing the community demands and other anti social behaviours exhibited in the area.

Consequently, the Federal Government came up with the Environmental Remediation Action Plan notification to the National Assembly through the president. Oil companies were therefore directed to find a lasting solution to the problem in the Niger Delta. The thrust of the Action plan was to attain a hundred percent remediation of all identified past impacted sites in order to attain zero discharges subsequently. It was agreed that there would be establishment of a special clean-up fund in which the oil companies and the Federal Government would be contributors.

Besides, the Federal Government of Nigeria through Federal Environmental Protection Agency and in collaboration with some leading oil companies went as far as organizing series of lectures and symposia to find possible ways of handling the issue of oil spillage and to combat some of the environmental hazards prevalent. They went into spending about five million dollars annually on Niger Delta Environmental survey, and three million dollars on environmental index mapping.

### **Control and Management of Spillage**

Preventive measures are actually the best rather than controlling and managing oil spillage. Since oil spills both large and small are inevitable, effective scientific and technological curative and preventive techniques need to be researched into for sustainable environment. However, preventive measures such as expert navigation and pilotage on oil tankers carrying petroleum products and proper maintenance on tankers and pipelines as well as better tanker construction will go a long way to minimize the chances of oil spill occurring.

Besides, the following recommendations will offer significant solutions to oil spillage within our environment:

- Develop better methods of transferring information between the communities involved and the oil companies. Communicating information about suspected cases will do a lot of good.
- Enhance environmental awareness by training top and middle management staff on environment issues.
- Reinforce planned preventive maintenance programs on hydrocarbons handling equipment.
- Direct our research and development efforts to work on new as well as existing technology on the control and prevention of oil spills.
- Implement processes or procedures to reduce human error.
- Generate an environmental design guideline.
- Encourage programmes to monitor and control corrosion and erosion in hydrocarbon handling equipment.
- Constant review of our pipelines, associated structures and off shore storage tanks.

Furthermore, plans should be made by oil companies which should include; drawing guidelines for various aspects of their activities and operation like risk assessment, access to information, operational procedures, advance notification, training as well as reporting documentation. Also, as competition is getting stiffer in oil industries, oil companies should develop and implement effective safety policies and practices, this will be appreciated by members of staff.

There is need for early detection of oil spills, particularly in the oceans where it creates unpleasant sight and odour, as will as do much harm to marine life. Meanwhile, the job of oil companies should go beyond cleaning up the mess occasioned by oil spill, concrete effort should also be made to ascertain the return of normalcy to ecological and adequate life in the endangered areas.

## Conclusion

Oil spillage in Niger Delta is acute and rapid. It is evident that the rate at which biological resources in the area are being lost is increasing rapidly.

This should be a source of great and justified concern today. In addition, the impacts have wide adverse social (especially health) and economic implications, of which the most critical are the rapidly increasing levels of poverty and the declining levels of quality of life the majority of the population in the area experience.

Oil spillage is a reality in Nigeria's rich Niger Delta, and people from this area bear the burden of the consequences of this problem more than others. The Federal Government of Nigeria therefore needs to put in more effort in ensuring that oil companies control and manage this problem curatively and prevent its constant occurrence.

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# **RECEDING HAIRLINES: PREVALENCE, IMPORTANCE, CAUSES, PREVENTION AND REMEDICATIONS AMONG NIGERIAN CITY WOMEN**

**Onyenekenwa C. Eneh\* and F.I. Ogbuefi-Chima<sup>1</sup>**

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## ***Abstract***

*Women are a very important group in the family, workplace and society at large. Their concern for good looks affects their emotions, and by multiplier effects, touches other segments of the society. Since the physique of the hair on their heads is an element of their beauty, this study was aimed at establishing the effect of receding hairlines (RHs) on Nigerian city women. Female workers at the Federal Secretariat Complex, Enugu were targeted because they are a miniature group of Nigerian city women. The total population of 193 was reached with questionnaire, and 170 completed copies were returned. The questionnaire had a section on personal information on the participants and another section on technical information. The technical questions sought likert-scale answers: very true (4), true (3), weakly true (2), and false (1). The data were analyzed using the average mean score*

*technique, which also helped to test the hypotheses. Results showed that the proportion of the population of Nigerian city women with RHs is significant. RHs affect the emotions of the women. Nigerian city women are not knowledgeable about the causes of and prevention and remediation for RHs. They are willing to address the issue of RHs, but are financially ill-disposed. It was recommended that non-governmental organizations should enlighten women on the causes of and prevention and remediation for RHs so as to position them to apply inexpensive home remedies to improve their looks and moods through reduction of the incidence of RHs, and thereby reduce frictions in homes and public service domains where women operate.*

## **Introduction**

The consumption of cosmetics and hair products in China grew within twenty years from US \$25 million in 1984 to US \$6 billion in 2004, at an average annual rate of 1,200 %. Shampoo commercials aimed at female consumers, typically portray hair beauty ideals - long, shiny, dark, and sleek. They feature a solitary model with a thick, glistening, large amount of hair or mane. As she engages in an activity, such as simply lounging around the house or alighting an airplane, her hair is in constant motion. The model's animated and lively hair is strong, shiny, long, and soft. Often, a male gaze on the model sexualizes and eroticizes the hairstyle. Sometimes a male character appears, usually to approve of or admire the gorgeous hair, otherwise the male gaze is implied [1].

The consumption figures and information on advertising offer insight into the importance of beautiful hair. Yoshiwara [2] reported that lustrous black black hair and impossibly white, porcelain skin mark the struggle of the narrow ideals of Asian beauty. The hair of the ideal Asian woman is thick, shiny, black or dark brown, preferably straight, and certainly long with a brushstroke.

All over the world, women are obsessed with the physique of hair as an all-important element of their beauty. To a woman, hair is far more than a bundle of fibre. It is a major factor of the glory of womanhood. Braided hair is part of outward adornments of a woman's beauty [3]. Long, short, bouncy, sleek hairstyles mean so much to most women. They are expressions of style and personality.

Lewis [4] observed that hair and self-image are closely intertwined. A "bad hair day" can make a woman feel inadequate all day long. Frequent emotional upsets have been linked to "bad hair". On the other hand, "good hair" confers self-confidence and procures emotional stability worth much more than the cost of the hair care.

According to Stone, Cozens and Ndu [5], hairs provide a complete covering for human head, even as they grow, shed and get replaced. Instances when the hairs on the edges of the woman's head are lost and hardly replaced lead to receding hairlines (RHs), which no woman enjoys having (Appendix I). It can completely devastate her looks and make her look not only older, but much more less attractive. RH is fairly prevalent among women. As she adds to her age, RH has more chances of showing up, to take its toll on her beauty and emotions.

Nigerian men do not take hair loss for an issue. Sometimes, male pattern baldness is just called nicknames, such "desert encroachment" and "evidence of wealth", and there it ends. But, women do [6]. The rural woman may not bother about hair issues as much as a city woman. It is not that the rural woman does not care to look her best, but that alluring opportunities abound more in the city, where the means of hair care is also more affordable. Experience had shown that virtually every woman in the city of Enugu, Nigeria has a RH, to differing lengths or degrees. This prompted this investigation on RHs of Nigerian city women.

The purpose of the study was to investigate the effect of RHs on Nigerian city women. Specifically, the study sought to establish the proportion of the population of Nigerian city women with RHs, feelings of

the women about receding hairlines, level of knowledge of the women regarding the causes of RHs, level of knowledge of the women regarding the prevention of RHs, level of knowledge of the women regarding the remediations for RHs, women's willingness to address the issue, and women's financial disposition to addressing the issue.

Ladies will benefit from the study which will sensitize them to the causes of and prevention and remediations for RHs and prepare them for tackling the issue. Families will benefit from the study which will address one of the sources of emotional afflictions for wives and mothers, who are considered the hearts of homes, and thereby reduce domestic tensions. Employers and clientele of women will benefit from the study, which will enlighten female employees on an issue that takes some tolls on their emotions, and therefore improve industrial relations. Colleagues of the female workers will benefit from the study, which will address emotion-related "bad hair" and reduce frictions in workplace relations. Researchers will benefit from the empirical study, which will form the basis for further academic investigations. The literature will be enriched by the study which will expose the prevalence of RHs and related findings among Nigerian city women.

## **Review of related literature**

Related literature is reviewed under conceptual framework and empirical literature. Conceptual framework covers the concepts of RH, hair growth, hair care, knowledge, ignorance, and poverty. Empirical literature covers causes of and prevention and treatments for RHs.

### **Conceptual framework**

#### **Concept of receding hairline**

RH occurs when the hairs that frame the edges of the hairs on the head thin out and the hairline that shapes the hairs moves inwards. The

major reason is that hair follicles cease to produce healthy hairs to replace lost ones. Men may not care about it, but women can be emotionally disturbed about any threat to their beauty, including the aspect procured by hair physique. RH is more common in older people. Nevertheless, it also can occur in the age of 20s (in a few cases) [7].

### **Concept of hair growth**

Reports [4,5,7] have shown that the mammalian hair is made of a tough, hard, fibrous protein called keratin. An hair consists of a solid rod of keratin with living cells at its base. It grows out of a tube in the skin called a hair follicle, and is lubricated by an oil called sebum, secreted by sebaceous gland.

A normal head of hair contains about 120,000-150,000 strands of hair. At any time, about 85-90 % of those hairs are in a growth phase, growing by about 1.25 centimeters (or 0.5 inch) per month. This phase lasts for 2-3 years, after which an hair will go into a resting stage, which lasts for 3-4 months, before the hair falls out and is replaced by a new one. Typically, people shed about 100 hairs a day, although most people do not even notice it.

The growth phase lasts between 1½ and 7 years, with 3 years being the average. The hair grows to its maximum length, depending on blood circulation, nutrition and other factors. The resting phase is called telogen, when the follicle rests for about 3 months. The hair can be brushed out during this time or when the new hair begins to grow. The breakdown and change stage is called catagen, when the hair detaches from the base of the follicle. This phase lasts about 3 weeks.

### **Concept of hair care**

Chang [8], Kurtzweil and Young [9] and Gray [10] reported on hair care as biological processes and hygiene, as well as hair cleaning. Hair care is an overall term for parts of hygiene and

cosmetology involving the hair on the human head. Hair is a manifestation of human diversity. All hair is not the same. Hence, hair care differs according to hair type.

### ***Biological processes and hygiene***

Care of the hair and care of the scalp skin are actually intertwined because hair grows from beneath the skin. The living parts of hair (hair follicle, hair root, root sheath, and sebaceous gland) are beneath the skin, while the actual hair shaft, which emerges (the cuticle, which covers the cortex and medulla) has no living processes. Damage or changes made to the visible hair shaft cannot be repaired by a biological process, though much can be done to manage hair and ensure that the cuticle remains intact.

Scalp skin, just like any other skin on the body, must be kept healthy to ensure a healthy body and healthy hair production. If the scalp is not cleaned regularly by the removal of dead skin cells, toxins released through the skin or external hazards (such as bacteria, viruses, and chemicals), a breeding ground for infection may be created. However, not all scalp disorders are a result of bacterial infections. Some arise inexplicably, and often only the symptoms can be treated for management of the condition (example, dandruff). There are also bacteria that can affect the hair itself.

Head lice is probably the most common hair and scalp ailment worldwide. Head lice can be removed with great attention to detail, and studies show it is not necessarily associated with poor hygiene. More recent studies reveal that head lice actually thrive in clean hair. In this way, hair washing as a term may be a bit misleading, as what is necessary in healthy hair production and maintenance is often simply cleaning the surface of the scalp skin, the way the skin all over the body requires cleaning for good hygiene.

The sebaceous glands in human skin produce sebum, which is composed primarily of oily fatty acids. Sebum acts to protect hair and skin, and can inhibit the growth of micro-organisms on the skin. It contributes to the skin's slightly acidic natural pH of between 5 and 6.8. This oily substance gives hair moisture and shine as it travels naturally down the hair shaft, and serves as a protective substance preventing the hair from drying out or absorbing excessive amounts of external substances. Sebum is also distributed down the hair shaft "mechanically" by brushing and combing. When sebum is present in excess, the roots of the hair can appear oily, greasy, and darker than normal, and the hair may stick together.

#### ***Hair cleaning***

One way to distribute the hair's natural oils through the hair is by brushing with a natural bristle brush (see Appendix II). The natural bristles effectively move the oil from the scalp through to the hair's mid-lengths and ends, nourishing these parts of the hair. Brushing the scalp also stimulates the sebaceous gland, which in turn produces more sebum. When sebum and sweat combine on the scalp surface, they help to create the acid mantle, which is the skin's own protective layer.

Washing hair removes excess sweat and oil, as well as unwanted products from the hair and scalp. Often, hair is washed as part of a shower or bathing with shampoo, a specialized surfactant. The shampoo breaks the surface tension of the water, allowing the hair to become soaked. This is known as the wetting action. The wetting action is caused by the head of the shampoo molecule attracting the water to the hair shaft. Conversely, the tail of the shampoo molecule is attracted to the grease, dirt and oil on the hair shaft. The physical action of shampooing makes the grease and dirt become an emulsion that is then rinsed away with the water. This is known as the emulsifying action. Sulphate-free shampoos are less harming on colour treated hair than normal shampoos that contain

sulphates. Sulphates strip away natural oils as well as hair dye. Sulphates are also responsible for the foaming effect of shampoos.

Shampoos have a pH of between 4 and 6 and do not contain soap. Soapless shampoos are acidic and therefore closer to the natural pH of hair. Acidic shampoo is the most common type used to maintain or improve the condition of the hair, as it does not swell the hairshaft and does not strip the natural oils.

Conditioners are often used after shampooing to smooth down the cuticle layer of the hair, which can become roughened during the physical process of shampooing. There are three main types of conditioners: anti-oxidant conditioners, which are mainly used in salons after chemical services and prevent creeping oxidation; internal conditioners, which enter into the cortex of the hair and help improve the hair's internal condition (also known as treatments); and external conditioners, or everyday conditioners, which smooth down the cuticle layer, making the hair shiny, combable and smooth. Conditioners can also provide a physical layer of protection for the hair against physical and environmental damage.

### ***Chemical alteration***

Temporary chemical alterations, like colouring and perming, can be carried out to change the perceived colour and texture of hair. Chemical alteration of hair only affects the hair above the scalp; unless the hair roots are damaged, new hair will grow, with natural colour and texture.

### ***Hair colouring***

Hair colouring is the process of adding pigment to or removing pigment from the hair shaft. Hair colouring processes may be referred to as colouring or bleaching, depending on whether pigment is added or removed. Colouring refers to pigment addition, whereas bleaching refers

to pigment removal. Temporary hair tints simply coat the shaft with pigments which later wash off.

Less temporary colour changes require that the cuticle of the hair be opened so the colour change can take place within the cuticle. This process, which uses chemicals to alter the structure of the hair, can damage the cuticle or internal structure of the hair, leaving it dry, weak, or prone to breakage. After the hair processing, the cuticle may not fully close, which results in coarse hair or an accelerated loss of pigment. Generally, the lighter the chosen colour from one's initial hair colour, the more damaged it may be. Other options for applying colour to hair besides chemical dyes include the use of such herbs as henna and indigo, or choosing ammonia-free solutions.

#### *Perms and chemical straightening*

Perms and relaxation using relaxer or thermal reconditioning involve chemical alteration of the internal structure of the hair in order to affect its curliness or straightness. Hair that has been subjected to the use of a permanent is weaker due to the application of chemicals, and should be treated gently and with greater care than hair that is not chemically altered.

#### *Delicate skin*

Special considerations need to be given to delicate skins. Scalp skin of babies and elderly are similar in subdued sebaceous gland production, due to hormonal levels. The sebaceous gland secretes sebum, a waxy ester, which maintains the acid mantle of the scalp and provides a coating that keeps skin supple and moist. The sebum builds up every 2–3 days for the average adult. Those with delicate skin may experience a longer interval. Teenagers often require daily washing of the hair. Sebum also imparts a protective coating to hair strands. Daily washing will remove the sebum daily and incite an increase in sebum production,

because the skin notices the scalp skin is lacking sufficient moisture. In cases of scalp disorders, however, this may not be the case. For babies and elderly, the sebaceous gland production is not at peak, thus daily washing is not typically needed.

### ***Treatment of damage***

#### ***Split ends***

Split ends, known formally as trichoptilosis, happen when the protective cuticle has been stripped away from the ends of hair fibers. This condition involves a longitudinal splitting of the hair fibre. Any chemical or physical trauma, such as heat, that weathers the hair may eventually lead to split ends. Typically, the damaged hair fibre splits into two or three strands with each split being 2-3 centimeters in length. Split ends are most often observed in long hair, but also occur in short hair that is not in good condition.

As hair grows, the natural protective function of the scalp can fail to reach the ends of the hair. The ends are considered old once they reach about 10 centimeters since they have had long exposure to the sun, gone through many shampoos and may have been overheated by hair dryers and hot irons. This all results in dry, brittle ends, which are prone to splitting. Infrequent trims and lack of hydrating treatments can intensify this condition.

#### ***Breakage and other damage***

Hair can be damaged by chemical exposure, prolonged or repeated heat exposure (as through the use of heat styling tools), and by perming and straightening. Oil is harmful for rough hair and for dry scalp as it decreases nourishment for hair, leading to split and hair fall. When hair behaves in an unusual way, or a scalp skin disorder arises, it is often necessary to visit not only a qualified physician, but sometimes a dermatologist or a trichologist. Conditions that require this type of

professional help include, but are not limited to, forms of alopecia, hair pulling/picking, hair that sticks straight out, black dots on the hair, and rashes or burns resulting from chemical processes. Gel provides a shiny look but dries the hair and makes it rough.

A number of disorders are particular to the scalp. Their symptoms may include abnormal odour, bleeding, bumps, caking skin buildup that appears white or another color than one's natural skin tone, chafes, clumps of hair falling out, clumpy flakes that do not easily slough off the scalp skin, dandruff and clumps, excessive itchiness that does not go away with a few hair wash, redness of scalp skin, patches of thinning, pus-like drainage, and shedding. Any of these symptoms may indicate a need for professional assistance from a dermatologist or trichologist for diagnosis.

Scalp skin can suffer from infestations of mites, lice, infections of the follicles or fungus. There could be allergic reactions to ingredients in chemical preparations applied to the hair, even ingredients from shampoo or conditioners. There are common concerns for dandruff (often associated with excessive sebum), psoriasis, eczema, or seborrheic dermatitis.

An odour that persists for a few weeks despite regular hair washing may be an indication of a health problem on the scalp skin. Not all flakes are dandruff. For example, some can merely be product buildup on the scalp skin. This could result from the common practice of applying conditioner to scalp skin without washing. This would dry upon the scalp skin and flake off, appearing like dandruff and even causing itchiness, but have no health effects whatsoever.

There are various reasons for hair loss. The most common are hormonal issues. Fluctuations in hormones often show in the hair. Not all hair loss is related to what is known as male pattern baldness, women can suffer from baldness just as men do. There are formulas for addressing this specific cause of lack of hair growth, but typically they require around

three months of consistent use for results to begin to appear. Cessation may also mean that gained growth may dissipate.

Particularly among women, thyroid disease is one of the more under-diagnosed health concerns. Hair falling out in clumps is one symptom of a set of symptoms that may indicate a thyroid concern. In any gynecological examinations, a blood screen for thyroid is now a common protocol. Thyroid often shows up first in the behaviour of the hair.

During pregnancy and breast feeding, the normal and natural shedding process is typically suspended (starting around month three because it takes a while for the body to recognize and reset for the hormonal shifts the body goes through) for the period of gestation and extended longer if one breast feeds (this includes pumping for breast milk). Upon cessation of either of these, it typically takes around two months for the hormones to shift again to the normal hormonal settings, and hair shedding can increase exponentially, for approximately 3–6 months until hair returns to its normal volume. It is commonly noticed that hair seems thicker and shinier, even, during pregnancy and breast feeding in response to the influx of shifting hormones. It is not unusual also for hair colour to change, or hair structure to change (e.g., straighter hair, curlier hair). These changes can occur more often than people may realize it, hence it is under-reported.

#### *General hair loss*

Some choose to shave their hair off entirely, while still others may have an illness (such as a form of cancer – note that not every form of cancer or cancer treatment necessarily means one will lose their hair) that caused hair loss or lead to a decision to shave the head.

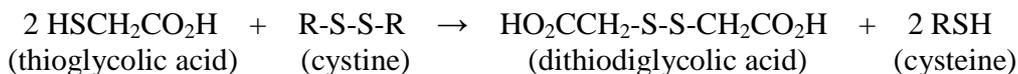
#### *Depilatory*

The *Online Dictionary* defines depilatory a compound (usually sulphide) that has the capability to remove hair. It is a preparation in the

form of a liquid or cream that is used to remove unwanted hair from the body.

A chemical depilatory is a cosmetic preparation used to remove hair from the skin on the human body. Currently, common active ingredients are calcium thioglycolate or potassium thioglycolate, which breaks down the disulphide bonds in keratin and weakens the hair so that it is easily scraped off where it emerges from the hair follicle.

This break down reaction is affected by the calcium hydroxide or the potassium hydroxide (both alkali). The resulting combinations of calcium hydroxide or potassium hydroxide and thioglycolic acid are calcium thioglycolate (CaTG) or potassium thioglycolate (KTG), respectively. The calcium hydroxide or potassium hydroxide are present in excess to enable the thioglycolic acid to react with the cystine present joining chains in hair protein. The reaction is:



As the epidermis is also rich in keratin, the skin may become irritated and sensitive if the preparation is left on for too long. Chemical depilatories are used primarily for the arms and legs. They should not be used on the face unless specifically listed for that purpose on the product's label.

Chemical depilatories are available in gel, cream, lotion, aerosol, roll-on, and powder forms. They are inexpensive, fast, pain-free, easy-to-do, and available. But, their effect lasts a short time (regrowth begins to appear generally within 2-5 days), dark-haired users may be left with a visible "shadow" of dark hair under skin, creams are generally foul in odor and messy to use, and can cause skin irritation.

***Hair care and nutrition***

Genetics and health are factors in healthy hair. Proper nutrition is important for hair health. Diet low in grains and sugar may help slow hair loss. A low-protein diet should be avoided because protein is essential nutrient for your hair growth [11].

The living part of hair is under the scalp skin where the hair root is housed in the hair follicle. The entire follicle and root are fed by a vein, and blood carries nutrients to the follicle/root. Any time an individual has any kind of health concern from stress, trauma, medications of various sorts, chronic medical conditions or medical conditions that come and then wane, heavy metals in waters and food, smoking, etc., these and more can affect the hair, its growth, and its appearance.

Generally, eating a full diet that contains protein, fruits, vegetables, fat, and carbohydrates is important (several vitamins and minerals require fat in order to be delivered or absorbed by the body). Any deficiency will typically show first in the hair. A mild case of anaemia can cause shedding and hair loss. Among others, the B group of vitamins are the most important for healthy hair, especially biotin. B<sub>5</sub> (pantothenic acid) gives hair flexibility, strength and shine and helps prevent hair loss and graying. B<sub>6</sub> helps prevent dandruff and can be found in cereals, egg yolk and liver. Vitamin B<sub>12</sub> helps prevent the loss of hair and can be found in fish, eggs, chicken and milk.

When the body is under strain, it reprioritizes its processes. For example, the vital organs will be attended to first, meaning that healthy, oxygenated blood may not feed into the hair follicle, resulting in less healthy hair or a decline in growth rate. While not all hair growth issues stem from malnutrition, it is a valuable symptom in diagnosis.

Shampoos or vitamins have not been shown to noticeably change the growth rate of hair, which varies based upon genetics, gender, age, hormones, and may be reduced by nutrient deficiency (i.e., anorexia,

anaemia, zinc deficiency) and hormonal fluctuations (i.e., menopause, polycystic ovaries, thyroid disease).

The essential omega-3 fatty acids, protein, vitamin B<sub>12</sub>, and iron, found in fish sources, prevent a dry scalp and dull hair colour. Dark green vegetables contain high amounts of vitamins A and C, which help with production of sebum and provide a natural hair conditioner. Legumes provide protein to promote hair growth and also contain iron, zinc, and biotin. Biotin functions to activate certain enzymes that aid in metabolism of carbon dioxide as well as protein, fats, and carbohydrates. A deficiency in biotin intake can cause brittle hair and can lead to hair loss. In order to avoid a deficiency, individuals can find sources of biotin in cereal-grain products, liver, egg yolk, soy flour, and yeast.

Nuts contain high sources of selenium, and therefore, are important for a healthy scalp. Alpha-linolenic acid and zinc are also found in some nuts and help condition the hair and prevent hair shedding that can be caused by a lack of zinc. Protein deficiencies or low-quality protein can produce weak and brittle hair, and can eventually result in loss of hair colour. Low-fat dairy products are good sources of calcium, a key component for hair growth. A balanced diet is extremely necessary for a healthy scalp and furthermore healthy hair.

### **Concept of knowledge**

Knowledge is a familiarity with someone or something, which can include facts, information, descriptions or skills acquired through experience or education. It can refer to the theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic. Knowledge acquisition involves complex cognitive processes: perception, communication, association and reasoning; while knowledge is also related to the capacity of acknowledgement in human beings [12].

**Concept of ignorance**

Ignorance is lacking education or knowledge, showing or arising from a lack of education or knowledge: an ignorant mistake, unaware or uninformed [13]. It is a state of being uninformed (lack of knowledge). Like stupidity, ignorance can lead to unwise acts.

**Concept of poverty**

The World Bank [14] and Krugman and Wells [15] submit that poverty is the state of one who lacks a certain amount of material possessions or money. Absolute poverty or destitution refers to the deprivation of basic human needs, which commonly includes food, water, sanitation, clothing, shelter, health care and education. Relative poverty is defined contextually as economic inequality in the location or society in which people live.

For much of history, poverty was considered largely unavoidable, as traditional modes of production were insufficient to give an entire population a comfortable standard of living. However, after the industrial revolution, mass production in factories made production of goods increasingly more inexpensive and accessible. Of more importance is the modernization of agriculture, such as fertilizers, to provide enough yield to feed the population. Nonetheless, the supply of basic needs can be restricted by constraints on government services such as corruption, tax avoidance, debt and loan conditionalities and by the brain drain of health care and educational professionals. Strategies of increasing income to make basic needs more affordable typically include welfare, economic freedoms, and providing financial services.

Misturelli and Heffernan [16] argue that poverty is a highly contested concept. Carney [17] opines that poverty is one of the most familiar and enduring conditions known to humanity, an extremely complicated concept to understand. Some researchers view it as a reaction

to the stress of being poor, whereas others perceive it as a process of adapting to the condition of poverty. Historical definitions are numerous, but can be classified as relating to either lack of financial income or lower social status. Numerous factors contribute to the concept of poverty, including political, economic, social, and cultural forces.

Poverty of income, poverty of access and poverty of power have been identified as aspects of poverty [18]. Although the poor have income, it is not enough to meet basic needs of life and cannot be accumulated as assets to create wealth and break the cycle of poverty. Poverty of access refers to inability of the poor to afford the choices offered in formal land and housing markets, but overcrowd in unsanitary slums and squatter settlements, which lack access to basic infrastructure and services. Poverty of power refers to the least ability of the poor to influence decision-making in governance and access to information to help them to advance their cause.

## **Empirical literature**

### **Causes of a receding hairline**

Frontal fibrosing alopecia (FFA) is a type of alopecia that affects post-menopausal women, damaging the hair follicles so that the hair falls out and cannot regrow. It can cause women to lose up to the first five inches of the front of their hairline back to the crown, often ending up with a receding hairline at the sides and hair from the back.

FFA is caused by the immune system attacking the follicles and causing inflammation. This damages the stem cells in the hair follicles. Stem cells are the body's building blocks which can turn into any cell and are vital for the survival of each hair. If the stem cells become damaged, hair is unable to regenerate. Hormones and genetic factors are responsible for FFA.

One of the most common causes of RH is frequent dying of hair. The dyes break down the hair and the hairline soon recedes. Pregnancy

may come with RH. There are various issues with the hormones at this time and usually the hair will come back perfectly fine a few months after the pregnancy term. Weight loss may also come with RH.

#### **Prevention of receding hairline**

There is no clear prevention for RH because it is commonly associated with inherited genes. However, being gentle with wet hair during washing and sticking with a healthy diet (especially eating adequate essential nutrients to promote good health for hair) can be helpful enough to prevent and slow hair loss.

#### **Treatments for a receding hairline**

Various ways of treating a RH have been proven to work over the years. If one treatment does not work, another can be tried until the one that works.

Prescription medicine can help improve the hair growth by reducing the production of substance called dihydrotestosterone or DHT (a kind of hormone that can affect and shrink the hair follicle). A dermatologist may also need to inject a substance called corticosteroid in the scalp if the RH was triggered by a bodily inflammation. The injection of corticosteroid is intended to cure the swelling due to a bodily inflammation and eventually help to improve and regrow the lost hairs.

There are also non-prescription medicines for treatments RH. One of the common choices is the use of a substance called 'minoxidil'. The topical solution help prevent and stop the hair from thinning and also can be useful to help stimulate hair growth. This kind over-the-counter medicine is applied once/twice daily on the affected area of scalp where restoration hairline is desired. The result can vary from person to person, but generally it may take about 12 weeks to give a significant result. However, side-effects should be watched, and application discontinued as necessary.

There are surgical options, where dermatologist will replace hair to restore and regrow RH. Some different surgical procedures to help restore RH includes: a surgery to remove hairless scalp and then replace it with hair-covered scalp, and an hair transplant surgery, where plugs of hair from the patient's scalp are removed and transplanted into the sections of scalp with thin hairs or baldness. Surgical option may be the fastest option to get rid of RH, but it is costly and there are also some side effects (such as pain, infection, or scarring).

The most popular and effective way of treating RH is by simply using a hair-strengthening shampoo, which strengthens the hair incredibly well and help regrow any lost hair. Also, some hair strengthening spray combat hormones and treat RH. Both the shampoo and spray contain active ingredients used along with a low-fat and low-cholesterol diet to lower high levels of triglycerides (fats) in adults.

Brushing the hair for several minutes every day, especially concentrating on the hairline, could regrow the hair within a few years. Brushing stimulates blood circulation to the scalp. Hair follicles need blood circulation in order to grow a strong, healthy hair. When a single hair falls out, another one will grow in its place. If the follicle continues to receive good blood circulation, the hair will be healthy and strong like the one it is replacing. But, if it is not receiving blood circulation, it will not be quite as strong and will not be able to grow as long in length as the previous one. This pattern will continue, with each consecutive hair becoming weaker and weaker, until a hair may only be able to grow about an inch long (give or take). It may also be very fine, like baby hair. When this hair lives its lifetime and falls out, the follicle may not even be able to produce another hair in its place. Even if the hair has gone this far, the follicle will still live for a time in a dormant state, until it eventually dies completely. If blood circulation is regained at any time before the follicle dies, it can begin anew to produce hair.

Natural oils and home remedies also combat RH. They are often considered as complementary treatments along with the conventional treatments, especially when the problem is caused by inherited genes. But these home remedies can give a significant result of progression in reversing RH if the problem is only triggered by controllable factors (such as stress, poor diet, or certain treatable medical conditions).

Some scalp massage techniques that help improve the flow of blood to the hair follicles include scalp massage with essential oils of lavender, rosemary, cedar-wood, and thyme. The blood that flows to the hair follicles is very crucial for your hair growth. This blood flow is important to make sure that the hair follicles get adequate essential nutrients. When it is affected or does not work properly, the supply of nutrients to hair follicles will also be affected. In other words, if the blood flow to hair follicles runs optimally, this can help improve the chance of improving the hair growth.

Some physicians believe that excessive consumption of refined grain products and sugar should be avoided, as they increase symptoms of hair loss. There may be a link between hair loss and the risk of developing insulin resistance. Some experts think that diet low in grains and sugar may help slow hair loss. In addition, a low-protein diet should also be avoided because protein is essential nutrient for your hair growth.

Uncontrolled stress (particularly in chronic case) can worsen the hair loss problem. Some supplements may work effectively in restoring RH by reducing DHT to eliminate the chance of hair follicles damage.

### **Gaps in literature**

The literature is rich with information on RH, especially as it affects the looks and moods of women outside of Africa. Thus, there is the need to domesticate the studies to accommodate Nigerian perspectives. This study sought to fill this gap.

## **Research methodology**

The study design, area of study, study population, sample and sampling procedure, instrument for data collection, data collection, and method of data analysis and test of hypotheses are discussed in this section.

### **Study design**

The study sought to investigate the prevalence of receding hairlines among Nigerian city women; how the women actually feel about it; their knowledge of its causes, prevention and remediations; their willingness to address the issue; and their financial disposition to addressing the unhealthy development. The research design adopted for the study is the descriptive survey. A descriptive study seeks the views and opinions of a part or all of a population and describes the findings. This design is concerned with gathering data at a particular point in time with the intention of establishing the nature of already existing conditions [19]. The descriptive survey design was considered appropriate for the study because it sought the views and opinions of Nigerian city women on existing issues of RHs.

### **Area of study**

According to Emodi [20], Enugu started as a photo-urban settlement near the mines, following the discovery of coal in the Udi Hills in 1909. With the construction of the Enugu-Port Harcourt rail line for the evacuation of coal to Europe through the Port Harcourt harbour, Enugu attained township status in 1917. By 1939, Enugu had become the headquarters of the then Southern Province. With the creation of three regions (Eastern, Northern and Western regions) in 1961, Enugu became the capital city of Eastern Region.

The Federal Secretariat Complex in Independence Layout, Enugu houses almost all ministries, departments and agencies (MDAs) of the

Federal Government of Nigeria functioning in Enugu city. The workers therein form a microcosm of Nigerian worker population resident in the city, hence it was chosen for this study targetting Nigerian city women.

**Study population**

The female staff of MDAs in the Federal Secretariat Complex, Independence Layout, Enugu are true representatives of Nigerian city women, as they are from all tribes of the country, live in the city of Enugu, of varying age brackets, of different marital statuses, have various educational qualifications, and are of different knowledge and income levels. They were, therefore, targetted for the study on Nigerian city women. They number 193 from the various MDAs in the Complex.

**Sample and sampling procedure**

The sample population was all the female staff of MDAs in the Federal Secretariat Complex, Independence Layout, Enugu. One hundred and seventy (170) of them returned the completed copies of the questionnaire. This constitutes 88.08 % of their total population of 193.

**Instrument for data collection**

A questionnaire was designed by the researchers and validated by relevant experts in Measurement and Evaluation. The questions contained in the instrument were informed by the review of relevant literature. The instrument is of two sections, A and B. Section A elicited personal information on respondents, while Section B elicited information on RHs. Section B contains questions with likert scale answer options: very true (VT, scale 4), true (T, scale 3), weakly true (WT, scale 2), and false (F, scale 1).

**Method of data collection**

The researchers visited the head of each MDA to obtain the permission to use and the number of female staff of the establishment. The questionnaire was administered to every female staff of each MDA by the researchers or his assistant, who had been briefed on the purpose of the study and his responsibility to ensure that valid and reliable data were obtained from the respondents. All available female staff of each MDA participated in the study.

**Method of data analysis and test of hypotheses**

The average mean score (AMS) technique was adopted in analyzing the data. It was calculated as (4+3+2+1 = 9) divided by 4 = 2.25. Similarly, the calculated value (CV) was obtained from the formula:

$$CV = \frac{\sum Fx}{\sum F}$$

Where CV is the calculated value  
F is the frequency  
x is scale value

An obtained CV in excess of AMS (2.25) was taken for an affirmation and for rejection of relevant null hypothesis, whereas CV less than the AMS was taken to be on the negative and for acceptance of the corresponding null hypothesis. This served for the hypotheses and research questions 1-7. Where the null hypothesis is rejected, the alternative hypothesis will be accepted. In a case where multiple questions address a research question or hypothesis, the average CV is calculated and used for decision, instead of the individual CVs for various questions that address the hypothesis.

## Results and discussion

This sections presents the results and discusses them against the backdrop of the literature reports of earlier workers. Table 4.1 summarizes personal data of participants.

**Table 4.1: Personal data of participants**

Q.Q. No.*	Subject	No.	%	
3.	Age bracket (years)	18-24	-	0
		25-34	23	13.5
		35-44	126	74.1
		45-60	21	12.4
4.	Marital status	Single	49	28.8
		Married	121	71.2
		Separated	-	0
		Divorced	-	0
5.	Income bracket per month	< N20,000	-	0
		N20,000 – 39,000	38	22.4
		N40,000 – 59,000	101	59.4
		>N60,000	31	18.2
6.	Highest educational qualification	FSLC	-	0
		O'Level	18	10.6
		NCE/OND	39	22.9
		≥ Degree/HND	113	66.5

Source: Field work, 2013

\* Questionnaire Question Number

From Table 4.1, no respondent was aged 18-24 years, but higher. Twenty-three respondents (13.5 %) were aged 25-34, 126 (74.1 %) were

aged 35-44, and 21 (12.4 %) were aged 45-60 years. This means that the respondents were mature adults.

No respondent was separated or divorced. Forty-nine (28.8 %) respondents were single, whereas 121 (71.2 %) were married. This means that the respondents were responsible adults.

Only 20 respondents (or 11.8 %) had a family size of 2-4 persons. Typically, a family of 2 persons might mean a working couple without a child and without a househelp or a dependent relative living with them. In a typical African country, such as Nigeria, a childless couple is understandable, but a working couple without a househelp and/or a dependent relative is uncommon. This explains the small proportion (11.8 %) with family size of 2-4 persons and suggests a minimum family size of 3 persons (a couple plus a maid).

Fifty-six (32.9 %) of respondents had a family size of 5-7 persons. Typically speaking, this might be a couple with two children and a househelp (5), a couple with three children and a househelp (6) or a couple with four children and a househelp (7).

Three (1.8 %) of respondents had a family size greater than 10 persons. Typically, this might be a couple with six children, a househelp and one or more dependent relatives (10+). Underdevelopment-induced economic stress is compelling more workers in Africa to watch their family sizes, contrary to the hitherto popular African extended family concept, in which uncles, aunties, nephews, nieces and in-laws live together in the family and collectively work the land, take care of their children, tend the livestock, administer justice, pay homage to their ancestors and worship God [21].

The mode class of respondents (91 or 53.5 %) had a family size of 8-10 persons. Typically speaking, this might be a couple with four children, a househelp and a dependent relative (8+).

No respondent earned N20,000 (\$130) or less per month. Thirty-eight respondents (22.4 %) earned between N20,000 (\$130) and N39,000

(\$252) per month. One hundred and one respondents (59.4 %) of respondents earned between N40,000 (\$258) and N59,000 (\$381) monthly. Only 31 respondents (18.2 %) of the federal female workers who participated in the study earned upwards of N60,000 (\$387) monthly.

All respondents were educated to various levels beyond the First School Leaving Certificate (FSLC). Eighteen respondents (10.6 %) stopped at the School Certificate (O' Level). Thirty-nine of them (22.9 %) had the Nigerian Certificate in Education (NCE) or Ordinary National Diploma (OND), while 113 (66.5 %) had a degree or Higher National Diploma (HND) and higher educational qualifications.

Table 4.2 is a summary of the prevalence of RH among Nigerian city women.

**Table 4.2: Prevalence of RH**

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	H <sub>0</sub>
8.	You have receding hairline.	1	2	3	4	170	506	2.98	CV>AMS	Reject H <sub>01</sub>	H <sub>01</sub>
	Frequency (F)	9	39	69	53						
	Fx	9	78	207	212						
9.	Most female adults have RH.	1	2	3	4	170	4.12	2.61	CV>AMS	Reject H <sub>01</sub>	H <sub>01</sub>
	Frequency (F)	21	24	125	-						
	Fx	21	48	375	-						
Average CV								2.80	CV>AMS	Reject H <sub>01</sub>	

Source: Field work, 2013

\* Questionnaire Question Number

AMS = 2.25, CV = 2.8

**Decision rule:** Reject H<sub>01</sub>, if CV > AMS; accept H<sub>01</sub>, if CV < AMS.

**Decision:** Reject H<sub>01</sub> - The proportion of the population of Nigerian city women with RHs is not significant. Accept the alternative hypothesis - The proportion of the population of Nigerian city women with RHs is significant.

With 74.1 % respondents aged 35-44, about 71.2 % of them as responsible married adults, and 66.5 % holding at least a university degree or Higher National Diploma (HND), the information generated were

credible. Respondents should be knowledgeable and responsible enough to know if they had RH. And, from the elicited information, the number of them with RH was significant, as the test for  $H_{01}$  has shown. Individual CVs for assessing self and others regarding possession of RH were 2.98 and 2.61 respectively, each greater than the AMS, 2.25. the average CV, 2.80, was also greater than the AMS. This means that the number of Nigerian city women with RHs is greater than those without it.

This confirms earlier report that RH cases are increasing. Hair loss is a gradual process and can go undetected for many years. By the time many women notice it, they have lost inches from their hairline. RH has gone from being a relatively unusual condition to something often seen.

Often, women simply put hair loss down to menopause and ageing. But, this can only be fallacious for the Nigerian city women, since the mode age bracket of respondents was 35-44, which is below the average age of menopause reported as 55 years.

Table 4.3 shows the impressions of respondents regarding RH.

***Table 4.3: Impressions about RH***

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	$H_0$
10.	Receding hairline confers older looks.	1	2	3	4	170	459	2.70	CV>AMS	Reject $H_{02}$	$H_{02}$
	Frequency (F)	26	31	81	32						
	Fx	26	62	243	128						
11.	It reduces attractiveness.	1	2	3	4	170	446	2.62	CV>AMS	Reject $H_{02}$	$H_{02}$
	Frequency (F)	7	71	71	21						
	Fx	7	142	213	84						
12.	It affects emotions.	1	2	3	4	170	393	2.31	CV<AMS	Reject $H_{02}$	$H_{02}$
	Frequency (F)	19	79	72	-						
	Fx	19	158	216	-						
Average CV								2.54	CV>AMS	Reject $H_{02}$	

Source: Field work, 2013

\* Questionnaire Question Number

AMS = 2.25, CV = 2.54

**Decision rule:** Reject  $H_{02}$ , if CV >AMS; accept  $H_{02}$ , if CV < AMS.

**Decision:** Reject  $H_{02}$  - Nigerian city women do not feel bad about RHs.  
Accept the alternative hypothesis - Nigerian city women feel bad about RHs.

Respondents were mature, educated and responsible enough to relate RH to their looks and emotions. The individual CVs were 2.70, 2.62, and 2.31 respectively for the questions relating RH to older looks, vitiation of attractive looks and emotions. Each of these CVs is greater than the AMS, 2.25. Therefore, Nigerian city women are of the view that RH makes a woman look older than her age, look less attractive, and does affect her emotions. The average CV is 2.54, which is greater than the AMS (2.25). Thus,  $H_{02}$  is rejected for the alternative hypothesis - Nigerian city women feel bad about RHs. This finding confirms earlier report that women all over the world are concerned with their beauty and with the physique of their hair as an important element of their beauty.

Table 4.4 shows the knowledge of the causes of RH.

**Table 4.4: Knowledge of the causes of RH**

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	$H_0$
13.	Hair plaiting causes RH.	1	2	3	4	170	395	2.32	CV>AMS	Reject $H_{03}$	$H_{03}$
	Frequency (F)	42	56	47	25						
	Fx	42	112	141	100						
14.	Frequent hair dying causes RH.	1	2	3	4	170	360	2.12	CV<AMS	Accept $H_{03}$	$H_{03}$
	Frequency (F)	31	88	51	-						
	Fx	31	176	153	-						
15.	Pregnancy causes RH.	1	2	3	4	170	345	2.03	CV<AMS	Accept $H_{03}$	$H_{03}$
	Frequency (F)	38	89	43	-						
	Fx	38	178	129	-						
16.	Weight loss causes RH.	1	2	3	4	170	223	1.31	CV<AMS	Accept $H_{03}$	$H_{03}$
	Frequency (F)	118	51	1	-						
	Fx	118	102	3	-						
17.	FFA** loss causes RH.	1	2	3	4	170	337	1.98	CV<AMS	Accept $H_{03}$	$H_{03}$
	Frequency (F)	41	91	38	-						
	Fx	41	182	114	-						
18.	Genetic factors causes RH.	1	2	3	4	170	257	1.51	CV<AMS	Accept $H_{03}$	$H_{03}$
	Frequency (F)	101	51	18	-						
	Fx	101	102	54	-						
Average CV								1.88	CV<AMS	Accept $H_{03}$	

Source: Field work, 2013

\* Questionnaire Question Number

\*\* Frontal fibrosing alopecia

AMS = 2.25, CV = 1.88

**Decision rule:** Reject  $H_{03}$ , if  $CV > AMS$ ; accept  $H_{03}$ , if  $CV < AMS$ .

**Decision:** Accept  $H_{03}$  - Nigerian city women are not knowledgeable about the causes of RHs.

Surprisingly, as educated as they were, respondents could not relate RHs to their causes identified in the literature. This is evident from the result of the test of  $H_{03}$ . The average CV is 1.88, which is less than the AMS (2.25), leading to acceptance of  $H_{03}$  - Nigerian city women are not knowledgeable about the causes of RHs. The individual CVs were 2.32, 2.11, 2.03, 1.30, 1.97 and 1.51. Specifically, respondents related hair plaiting to RH, since the CV was 2.32, which is greater than the AMS, 2.25. They could not relate other causes identified in the literature to RH, since the individual CVs were lower than the AMS (2.25). Causes identified in the literature are hair plaiting and frequent dying of hair. Pregnancy and weight loss are also associated with RH. FFA and genetic factors also causes of RHs. Therefore, out of the six literature identified causes of RH, Nigerian city women know of only one, which is hair plaiting.

Table 4.5 shows the knowledge of prevention of RH.

***Table 4.5: Knowledge of prevention of RH***

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	$H_0$
19.	Careful handling of wet hair prevent RH.	1	2	3	4	170	293	1.72	CV<AMS	Accept $H_{04}$	$H_{04}$
	Frequency (F)	72	73	25	-						
	Fx	72	146	75	-						
20.	Good nutrition prevents RH.	1	2	3	4	170	331	1.95	CV<AMS	Accept $H_{04}$	$H_{04}$
	Frequency (F)	66	69	13	22						
	Fx	66	138	39	88						
Average CV								1.83	CV<AMS	Accept $H_{04}$	

Source: Field work, 2013

AMS = 2.25, CV = 1.83

**Decision rule:** Reject  $H_{04}$ , if  $CV > AMS$ ; accept  $H_{04}$ , if  $CV < AMS$ .

**Decision:** Accept  $H_{03}$  - Nigerian city women are not knowledgeable about the prevention of RHs.

Of the two measures identified in the literature for prevention of RH, respondents could not relate with any. They are careful handling of wet hair and good nutrition. The individual CVs were 1.66 and 1.87 respectively, each of them being less than the AMS (2.25). Average CV was 1.83, also understandably less than the AMS. Therefore, Nigerian city women are majorly ignorant of prevention measures for RH. This dictates their vulnerability to RH, hence it is on the increase.

Table 4.6 shows the knowledge of remediations of RH. Most respondents could not relate to the remediations for RH as identified by the literature. This is evident from the result of the test of  $H_{05}$ . The average CV was 1.79, which is less than the AMS (2.25), leading to acceptance of  $H_{05}$  - Nigerian city women are not knowledgeable about the remediations of RHs. The individual CVs were 2.40, 1.76, 1.81, 1.91, 1.94, 1.82, 2.13, 2.11, 1.81, 1.75, 1.93 and 1.92. Specifically, respondents identified good nutrition as a remedy for RH, since the CV was 2.40, which is greater than the AMS, 2.25. But, they could not relate to other literature identified remediations for RH, since the individual CVs were lower than the AMS (2.25). Remedies for RH identified in the literature are good nutrition, brushing, use of hair-strengthening shampoo and spray, use of natural oils, application of scalp massaging technique, use of prescription medicines, use of non-prescription medicines (over-the-counter drug), surgical option, taking food supplements, and controlling stress. Therefore, out of the twelve remedies for RH identified in the literature, Nigerian city women know of only one – good nutrition.

**Table 4.6: Knowledge of remediations of RH**

Q.Q. No.*	Question	Likert scale (x)				∑F	∑Fx	CV	Remark	Decision	H <sub>0</sub>
21.	Nutrition addresses RH.	1	2	3	4	170	408	2.40	CV>AMS	Reject H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	39	49	57	25						
	Fx	39	98	171	100						
22.	Brushing addresses RH.	1	2	3	4	170	299	1.76	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	69	73	28	-						
	Fx	69	146	84	-						
23.	Brushing regrows lost hair.	1	2	3	4	170	307	1.81	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	67	69	34	-						
	Fx	67	138	102	-						
24.	HS Shampoo addresses RH.	1	2	3	4	170	324	1.91	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	72	63	17	18						
	Fx	72	129	51	72						
25.	HS Spray addresses RH.	1	2	3	4	170	330	1.94	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	68	66	14	22						
	Fx	68	132	42	88						
26.	Natural oils combat RH.	1	2	3	4	170	309	1.82	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	69	67	15	19						
	Fx	69	134	30	76						
27.	Scalp massage can address RH.	1	2	3	4	170	362	2.13	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	71	69	16	14						
	Fx	71	178	48	56						
28.	Prescription medicine address RH.	1	2	3	4	170	359	2.11	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	70	68	15	17						
	Fx	70	176	45	68						
29.	Non-prescription medicine address RH.	1	2	3	4	170	307	1.81	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	72	70	17	11	170					
	Fx	72	140	51	44						
30.	Surgical options address RH.	1	2	3	4	170	298	1.75	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	74	71	18	7						
	Fx	74	142	54	28						
31.	Supplements can address RH	1	2	3	4	170	328	1.93	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	68	67	14	21						
	Fx	68	134	42	84						
32.	Controlling stress can address RH	1	2	3	4	170	327	1.92	CV<AMS	Accept H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	71	64	12	23						
	Fx	71	128	36	92						
Average CV								1.79	CV<AMS	Accept H <sub>05</sub>	

Source: Field work, 2013

\* Questionnaire Question Number

AMS = 2.25, CV = 1.79

**Decision rule:** Reject H<sub>05</sub>, if CV >AMS; accept H<sub>05</sub>, if CV < AMS.

**Decision:** Accept H<sub>05</sub> - Nigerian city women are not knowledgeable about the remediations for RHs.

Table 4.7 shows the willingness of respondents to address RH as an important issue.

**Table 4.7: Willingness to address RH (as an important issue)**

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Rmk	Decision	H <sub>0</sub>
33.	Willingness to remediate RH.	1	2	3	4	170	476	2.8	CV>AMS	Reject H <sub>05</sub>	H <sub>05</sub>
	Frequency (F)	12	33	102	23						
	Fx	12	66	306	92						

Source: Field work, 2013

AMS = 2.25, CV = 2.8

**Decision rule:** Reject H<sub>06</sub>, if CV >AMS; accept H<sub>06</sub>, if CV < AMS.

**Decision:** Reject H<sub>06</sub> - Nigerian city women are not willing to address the issue of RHs. Accept alternative hypothesis - Nigerian city women are willing to address the issue of RHs.

From the result of the test of H<sub>06</sub>, respondents are willing to address the issue of receding hairlines. This in line with the literature report that women the worldover are obsessed with the physique of their hair as a very important element of their beauty.

Table 4.8 shows the financial disposition of respondents to addressing RH.

**Table 4.8: Income sufficiency to address RH**

Q.Q. No.*	Question	Likert scale (x)				$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	H <sub>0</sub>
34.	Sufficiency of income to address RH.	1	2	3	4	170	370	2.18	CV<AMS	Accept H <sub>07</sub>	H <sub>07</sub>
	Frequency (F)	34	83	42	11						
	Fx	34	166	126	44						

Source: Field work, 2013

\* Questionnaire Question Number

AMS = 2.25, CV = 2.18

**Decision rule:** Reject H<sub>07</sub>, if CV >AMS; accept H<sub>07</sub>, if CV < AMS.

**Decision:** Accept H<sub>07</sub> - Nigerian city women are not financially disposed to address RHs.

From the result of the test of  $H_{07}$ , Nigerian city women are not financially disposed to address RHs. This is without prejudice to their willingness to do so and their obsession with hair physique as an important element of beauty. The possible cause of this contradiction is poverty of income, which refers to insufficiency of income to meet one's basic needs. Most respondents earned \$258 per month, despite their high educational qualifications (65 % hold at least university degree or Higher National Diploma, HND). This translates to \$8 per day. For the mode family size of 8 persons, this income means \$1 per day per person, if the woman is the breadwinner. This paints the picture of absolute poverty defined as living on less than \$1 per day.

Earlier work [22] observed that poverty is endemic and widening in Nigeria. Although poverty reduction programmes and projects abound at all the three tiers of government (federal, state and local governments), no programme or project is a success story for four decades running from 1970 through 2010 because policy inconsistency, programme summersaults, and project failures and turn-arounds characterize governance [23].

## **Conclusion and recommendations**

The study discovered that the proportion of the population of Nigerian city women with RHs is significant. Nigerian city women feel bad about RHs. They are not knowledgeable about the causes of and prevention and remediations for RHs. Although they are willing to address the issue of RHs as an important element of their beauty, they are financially ill-disposed due to income poverty.

Raising the awareness of Nigerian city women on the causes of and prevention and remediations for RHs will help them seek non-prescription medicines, natural oils, massaging techniques, nutrition, home remedies and other low-costing ways to prevent and treat RHs, which affect their emotions with multiplier effects on family members and patron clientele

in public service. Non-governmental organizations need to explore avenues to enlighten women on the causes of and remediations for RHs, as this will contribute to reduction of frictions in homes and public service dormains where women operate.

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**APPENDIX**

**APPENDIX I – Receding hairline**



***Plate 1: Receding hairline*** (Courtesy of Alamy)

**APPENDIX II: Hair brushing**



***Plate 2: Hair brushing*** (Courtesy of Getty Images)

## **IMPEDIMENTS TO COMMUNITY CORPORATE INVOLVEMENT OF SMALL AND MEDIUM ENTERPRISES IN ENUGU, NIGERIA**

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### ***Abstract***

*Small and medium enterprises (SMEs) are a principal means of achieving sustainable industrial diversification and equitable development in developing countries, including Nigeria. SMEs may lack in community corporate involvement, since reports allude to hostile environment for SMEs in Nigeria, especially regarding ignorance, poor human capital and poor business environment. This study investigated the knowledge of CSR practices of SME operators and community corporate involvements of SMEs in Enugu. The guideline of a regulatory agency was used to select 9 SMEs operating in 6 communities in Enugu. Separarte questionnaires were administered to SME operators and town unions presidents. Average mean score technique was used to analyze the likert-scale data and to test the null hypotheses. Findings showed that SME operators are majorly ignorant of CSR practices. SMEs maximize profit for their owners without considering the interests of the host community. They do not look beyond profit to consider the interests of the host community, nor*

*to take responsibility for the impact of the organization's activities on customers, employees and the environment. All SMEs do for host community is to offer a few job opportunities to indigenes. They do not sponsor any development project for the host community, nor discuss with indigenes the strategy for sustainable development of the host community, but occasionally make philanthropic cash donations to individual, family and community activities in the host community. They leave the provision of social services for host community to government and charity organizations. It is recommended that non-governmental organizations should explore avenues to enlighten SME operators and host communities on CSR practices and CCI, as well as their mutual benefits to both the organization and host community.*

## **Introduction**

Small and medium enterprises (SMEs) are key to national economic growth and development, achieving sustainable industrial diversification and equitable development in developing countries [1]. About 80-90 % of enterprises and 60-70 % of domestic employment in various economies come from SMEs, which brought about the growth of the developing countries of the world, also known as the BRICS (Brazil, Russia, India, China, South Africa) countries [2]. The Asian Tigers (Hong Kong, Taiwan or China, Singapore, Malaysia and South Korea) owe their rapid economic transformation to SMEs [3].

According to Kpakol [4], SMEs create over 60 % of jobs and employment opportunities in Nigeria and redistribute wealth and income in the polity. Also, SMEs help in utilization of local resources, dispersal and diversification of economic activities, mobilization of savings, rendering services to large industries, reduction of rural-urban imbalances, and generally enhancing the achievement of the United Nations (UN)

Millennium Development Goals (MDGs). Ogunsanya [5] concurred that SMEs contribute significantly and impressively to employment generation, entrepreneurial development, income generation, poverty alleviation and, by extension, promote sustainable economic growth and development, hence, they have received increasing attention in recent times. Nigerian government recognized the importance of the SME sector and the need to develop it, when it created the Small Industries Development Plan (SIDP) in the Second National Development Plan (1970-1975), aimed at providing technical and financial supports to the existing and prospective SMEs, with a view to enhancing their contributions to the socio-economic development of the country through the transformation of traditional indigenous industries and stimulation of indigenous entrepreneurship and technology [6].

Going by the spirit of corporate social responsibility (CSR), a business concern ought to go beyond its primary function of making profit for shareholders, to having obligations to the community in which it is located and to its employees, customers and the environment. Through community corporate involvement (CCI) and corporate social actions (CSAs), SMEs need to play great roles to help address sustainable development and poverty challenges of their host communities [7-10].

Much of the studies on corporate social responsibility (CSR) conducted so far address the context of developed countries, such as Western Europe, the U.S.A. and Australia [11]. Literature is beginning to emerge for developing countries, such as Ghana and South Africa in sub-Saharan Africa, and Latin America [12-14]. The reports by Manteaw [15] and Muthuri [16] show that some CCI practices are limited to unsustainable peripheral donations, which served as mere poverty panacea and, therefore, inadequate means of addressing development challenges of low-income communities, especially those in developing countries. Confirming these report, Eneh [3] observed that the corporate social

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actions (CSAs) of oil and gas corporations in the Niger Delta region of Nigeria are peripheral and did not reduce poverty, hence the crippling poverty situation reflected in higher figures of poverty indicators for the region than other geo-political zones of the country without oil and gas exploration. The report also attributed the youth restiveness in the Niger Delta region to this situation, and recommended, among others, concentrating efforts on CSAs that address sustainable community development, sustainable livelihood and poverty reduction.

A great proportion of the reports on CCI in Africa centre on CSAs of large enterprises, such the oil and gas corporations. Yet, SMEs are a principal means of achieving sustainable industrial diversification and equitable development in developing countries, including Nigeria. The dearth of reports on CCIs of SMEs might mean that SMEs have impediments in this regard, since SMEs in Nigeria operate in a hostile environment with myriads of challenges bordering on ignorance, poor human capital and poor business environment [6]. The present study was aimed at investigating the impediments to CCI practices of SMEs in Enugu, Nigeria. The study assumed that SME operators in Enugu are not ignorant of CCI practices, poor human capital does not affect CCI practices of SMEs in Enugu, and poor business environment does not hinder CCI practices of SMEs in Enugu. These null hypotheses were tested at the end of the investigation. The study adopted the descriptive survey research design to seek the views of SME operators (supply side) and town unions presidents (consumer side) regarding already existing conditions of CCI practices. The report will enrich the literature on CSR in developing countries, while the empirical study will form the basis for other researches in the area of CSR practices of SMEs in Africa.

## **Theoretical and conceptual framework**

### **Enterprise**

Enterprises are micro/cottage, small, medium and large in scale, usually based on some quantifiable measures, such as the number of employees in the enterprise and the working capital (running cost per annum, including staff salaries, rent, utilities and other expendables). Their magnitude varies in different countries and time [17, 18]. For example, a reclassification of industrial enterprises in Nigeria by the National Council on Industry [19] shows that a micro/cottage industry has a total capital outlay of not more than N1.5 million (excluding cost of land) and/or a workforce of not more than 10 persons; small industry has over =N=1.5 million but not more than =N=50 million (excluding cost of land) and/or 11-100 workers; medium industry has over N50 but not more than =N=150 million (excluding cost of land) and/or 101-300 workers; large industry has over =N=150 million (excluding cost of land) and/or over 300 workers.

For SMEs to succeed, the state plays an extensive role in the provision of infrastructure, business services, technical upgrading and export assistance [20]. In Nigeria, the state plays some roles in catalysing co-operation in times of economic stress, providing infrastructural and technical support for small firms' development, and fostering optimal linkages with national and global production systems [21]. The state also plays some regulatory roles [22]. Onah [23] paints a clear picture of the failure of the Nigerian state in this regard, leading to the chronic challenges of inadequate infrastructure, weak and inconsistent incentives, corruption and policy summersault for SME sector.

**Corporate social responsibility (CSR)**

CSR is a concept that encourages organizations to look beyond profit and consider the interests of the society by taking responsibility for the impact of the organization's activities on customers, employees, shareholders, host communities and the environment in all aspects of their operations. It urges business organizations to voluntarily go beyond the legal obligations to manage the impact of their activities on the environment and society to take steps to improve the quality of life for employees and their families as well as for the local community and society at large. It originated with the "corporate paternalists" of the late 19<sup>th</sup> century and early 20<sup>th</sup> century, who used some of their wealth to support philanthropist ventures [24, 25].

CSR pitches the two perspectives of business against each other. The stockholder perspective is that the primary function of business is to provide a return on investment to owners and shareholders, create jobs and fair pay for workers, and discover new resources [26]. CSR is antithetical to sound business practice and serves to dilute business focus on wealth creation [27]. On the other hand, the stakeholder perspective of business is that business and society are interwoven rather than distinct entities [28]. CSR provides superior legitimacy to businesses within their ambient societies. As principal creators of value and managerial resources, businesses have obligations to societies in which they are embedded to contribute to economic growth and opportunity [11]. Recent developments in the debate point to a more "socially responsible model" derived from the stakeholder theory and currently perceived by scholars as more capable of capturing the dynamics of business-society linkage [29].

Some scholars see CSR as reflecting corporate citizenship, corporate philanthropy, corporate giving, and corporate community involvement – emphasizing the social role on its own merit. Others see these practices as corporate social investments [14] with corporate image,

goodwill and branding as outcomes [30]. Values-led branding is, therefore, catching on as a deliberate corporate strategy that should provide increased returns on investment and is measured along the same lines as other forms of economic investments.

Idemudia [29] identified three perspectives of CSR in developing countries as (1) voluntary initiative (2) the accountability perspective, and (3) enabling environment. The accountability perspective argues that the logic of capitalism does not support CSR initiatives. Local and international regulations are necessary to compel businesses to finance CSR activities. The enabling environment perspective agrees to the necessity of the voluntary initiatives and regulations, but adds that they do not provide sufficient conditions for the fulfillment of CSR [31, 32].

There is the need for governmental institutions, NGOs and civil societies to join hands to create incentives and congenial environments that stimulate CSR initiatives. On the contrary, reports show that Nigeria's business climate does not encourage entrepreneurs. Many state-owned enterprises have been privatized for insolvency. Multinational corporations are leaving the country. Nigeria ranked 109<sup>th</sup> (2005), 108<sup>th</sup> (2006) and 108<sup>th</sup> (2007) in "Doing Business" Report of the World Bank, which systematically and objectively measured the time and cost involved in running and closing a business in 178 countries around the world. Myriads of challenges plague the business environment in Nigeria. These include the absence of or decaying infrastructure, weak government commitment and inadequate incentives [33].

Costs of capital were not only highest in Nigeria, but were multiples of the figures in other parts of the world. Manpower development is poor. Annual growth rate of SMEs declined from 20% in 1975-1979 to appalling negative values of -2.6% in 1990-1994 and -0.9% in 1995-1999 periods. Three out of 4 SMEs die every year in Nigeria, and

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9 out of 10 persons, who wished to go into business in Nigeria, do not eventually get to start [6].

Human capital is the stock of competencies, knowledge and personality attributes embodied in the ability to perform labour so as to produce economic value. It is the attributes gained by a worker through education and experience. It is the number of persons who have the skills, education and experience which are critical for the economic and political development of a country. Human capital formation refers to the “process of acquiring and increasing the number of persons who have the skills, education and experience, which are critical for the economic and political development of a country.” Human capital development involves: (i) health facilities (ii) on-the-job training (iii) formal education at the primary, secondary and tertiary levels (iv) study and extension programmes (v) migration of individuals and families to adjust to changing job opportunities, and (vi) import technical assistance. It is increasingly recognized that the growth of tangible capital stock depends, to a considerable extent, on human capital formation. Developing countries lack the critical skills needed for industrial sector, but have surplus labour force [35].

Carroll [36, 37] provided a four-part definitional model of CSR, which identifies four types of CSR initiatives: economic, legal, ethical, and discretionary. The economic drivers of CSR are reflected in the corporate social investment. The legal triggers entail expectations of legal compliance and playing by the “rules of the game.” The society expects business to fulfill its economic mission within the framework of legal requirements. The ethical responsibilities of firms define expectations that are not stipulated in laws but are considered in a given society as being part of the morals, ethos or accepted rules of behaviour for firms and organisations. These responsibilities are predicated on the view that businesses are moral, and managers do what is right, just, and fair [38].

Thus, the World Business Council for Sustainable Development, WBCSD, [39] defines CSR as achieving commercial success in ways that honour ethical values and respect people, communities and the natural environment. Similarly, Steiner and Steiner [40] argue that social responsibility is the duty a corporation has to create wealth by using means that avoid harm, protect, or enhance societal assets. Epstein [41] refers to this perspective as the Social Contracts Theory.

The moral argument for CSR recognizes that profits are necessary for any business entity to exist, but submits that all groups should strive to add value and make life better in the society. Businesses cannot prosper without existing and operating in a society. Therefore, it behoves a business to have an obligation to the community in which it is located, to the people it employs and its customers, beyond their traditional bottom-line narrow shareholder concerns. The economic argument recognizes self-interest and submits that CSR actions represent a real point of differentiation and competitive market advantage on which future success can hinge [28]. Miles *et al* [42] reported that strategic conversations with stakeholders play a significant role in the formation of CSR strategy. Without joint planning and actions, key stakeholders may end up undermining each other's efforts [43].

CSR seeks to align corporate policies and reputation to sustainable development, in order to ensure companies' reputation and their access to capital, land and markets [7]. The eco-modernization hypothesis argues that effective environmental management would increase the efficiency of the production process - in terms of less energy and material needs – and hence increase bottom-line profits [44].

## **Research methodology**

### **Area of study**

The study was undertaken in Enugu urban of Enugu State, Nigeria. Emodi [45] described Enugu urban as situated between latitudes 6°27' N and 7°28' N and longitudes 7°30' E and 8°19' E. The urban land area is about 72.8 km<sup>2</sup>, while the rural environs cover an additional area of about 200 km<sup>2</sup>. Enugu North, Enugu East and Enugu South Local Government Areas (LGAs) make up Enugu urban, which is bounded on the north by Isi-Uzo LGA, on the south by Nkanu West LGA, on the East by Nkanu East LGA, and on the west by Udi LGA.

Enugu started as a settlement near the mines, following the discovery of coal in the Udi Hills around 1909. Iva Valley and Ogbete areas were the first to develop and functioned primarily as coal miners residences. With the discovery of deep sea harbour in Port Harcourt, construction of the Enugu-Port Harcourt rail line commenced in Enugu in 1914. In 1917, Enugu attained township status and was then referred to as Enugu-Ngwo. As a result of its rapid expansion towards areas owned by other indigenous communities rather than towards Ngwo highlands, it was renamed Enugu in 1928. Today, the indigenous communities include Ngwo, Ogui, Nike, Emene, Awkunanaw, Ugwuaji, and others.

By 1939, Enugu had become the headquarters of the then southern province. Enugu became a regional capital and the most important administrative centre in the Eastern Region with the creation of three regions in Nigeria in 1961. Residential quarters also developed in the Government Reserved Area (GRA), as well as Uwani, New Haven, Abakpa, Emene, Achara Layout, among other neighbourhoods in Enugu urban. The population of the metropolis has been on the increase within the last few decades, as a result of rapid urbanization and subsequent

influx of people. From 63,000 people in 1953, the population rose to 482,977 in 1991 and 722, 664 in 2006. The city has an estimated population of 839,642 according to the 2011 projection of the National Population Commission [46].

Aside being the capital city of the present Enugu State, former Anambra State and erstwhile East Central State, Enugu was also the capital city of the old Eastern Region of Nigeria. It is largely populated by the Igbo ethnic group known for entrepreneurial dexterity, hence its high concentration of SMEs [6]. This informs the choice of Enugu for the study. The choice of SMEs was predicated on the important role of this sector in sustainable development and poverty reduction.

### **Research design**

The study sought to investigate the hinderances to CCI of SMEs in Enugu. It adopted the descriptive survey research design. A descriptive study seeks the views of target participants and analyzes the findings regarding the nature of already existing conditions [47]. The descriptive survey research design was considered appropriate for the study because it sought the opinions of SME operators (supply side) and host town union presidents (consumer side) on the involvement of SMEs in the development projects of host communities.

The target SMEs were fished out from the lists supplied by the organised private sector (OPS), since all the Enugu State-owned enterprises (SOEs) were large enterprises. OPS in Enugu urban includes the Manufacturers Association of Nigeria (MAN) with administrative office located on 2/18 Chime Avenue, New Haven, Enugu; the Enugu Chamber of Commerce, Industries, Mines and Agriculture (ECCIMA) with head-office at the Trade Fair Complex, Enugu; the Nigerian Association of Small and Medium Enterprises (NASME) with

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administrative office at Bank of Industries (BOI), Independence Layout, Enugu; and the Nigerian Association of Small Scale Industrialists (NASSI) with administrative office at The Eastern Nigeria Industrial Estate, 30 Zik Avenue, Uwani-Enugu.

The selection of target SMEs was based on meeting the criteria for SMEs, using the NCI [18] reclassification guideline, according to which a small enterprise has 11-100 staff strength and =N=1.5 million to =N=50 million capital outlay, and a medium enterprise has 101-300 staff strength and >=N=50 million to =N=150 million capital outlay. Capital outlay includes annual salary, rent and running costs.

However, all the entries on the lists of MAN and ECCIMA fell above the criteria for SMEs. They were, therefore, discarded and the lists from NASME and NASSI were used for the study. Co-operative societies were also dropped from the list of NASSI, since they were not entrepreneurs targeted by the study. Again, most of the entries on NASSI list were names of the entrepreneurs, not those of the enterprises. Further probing revealed that such enterprises had no registered trade names (no legal status) or hid the names and contact addresses/locations for fear of multiple taxations plaguing the business environment in Nigeria. However, such entrepreneurs were contacted on phone for further interaction. The exercise resulted in a list of 127 study population of entrepreneurs in Enugu.

A preliminary questionnaire on categorization of the study population of entrepreneurs was designed by the researcher and validated by experts in Enterprise Development. It was administered to the 127 entrepreneurs on the new combined list of NASME and NASSI validated study population. At the end of the exercise, only nine (9) belonged to SMEs sub-sector, and were, therefore, selected for further investigations.

The main questionnaire was designed by the researcher and validated by relevant experts in Enterprise Development, CSR, and

Measurement and Evaluation. The questions contained in the instrument were informed by the review of relevant literature on SMEs and CSR practices. The instrument is of two Parts, 1 and 2. Part 1 was for entrepreneurs to complete, while Part 2 was completed by the presidents of the host towns unions. The 9 participating SMEs were located in 6 communities, namely Ogui, Nike, Ngwo, Emene, Ugwuaji and Awkunanaw. Each Part of the main questionnaire consisted of two Sections, A and B. Section A elicited personal information on respondents, while Section B elicited information on the involvement of SMEs in the development projects in host communities. Section B contains questions with likert-scale answer options: very true (VT, scale 5), true (T, scale 4), weakly true (WT, scale 3), don't know (DK, scale 2) and false (F, scale 1).

The average mean score (AMS) technique was used to analyze the data and test the hypotheses. AMS was calculated as  $(5+4+3+2+1 = 15)$  divided by  $5 = 3$ . The calculated value (CV) was obtained from the formula:

$$CV = \frac{\sum Fx}{\sum F}$$

Where CV is the calculated value

F is the frequency

x is scale value

CV value in excess of AMS (3) was taken for an affirmation and for rejection of the relevant null hypothesis, whereas CV value less than the AMS was taken to be on the negative and for acceptance of the corresponding null hypothesis. Where the null hypothesis was rejected, the alternative hypothesis would be accepted. In a case where multiple questions addressed a research question or hypothesis, the average CV was

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calculated and used for decision, instead of the individual CVs for various questions that addressed the hypothesis. Nonetheless, the individual CVs helped in offering insights for discussion.

### Results and discussion

Table 2 summarizes the personal data of small and medium entrepreneurs.

*Table 2: Personal data of entrepreneurs*

Subject		No.	%
Age (years)	18-24	-	0
	25-34	1	11.1
	35-44	4	44.4
	45-60	3	33.3
	> 60	1	11.1
Highest educational qualification	FSLC	-	0
	O'Level	-	0
	NCE/OND	2	22.2
	> Degree/HND	7	77.7

*Source:* Field work, 2013

From Table 2, the small and medium entrepreneurs were aged 25 years upwards; none was aged 24 years or below. One of them (11.1 %) was of the age bracket 25-34. Another one (11.1 %) was aged 60 years or above. Three others (33.3 %) were aged between 45 and 60 years. Four entrepreneurs (44.4 %) were aged 35-44 years. Thus, most of the entrepreneurs were of the age bracket 35-44 years, followed by 45-60 years bracket.

In developing countries, most people aged below 24 years are still in school. In Nigeria, they might be doing their national youth service. They are unlikely to be entrepreneurs until they have finished with the

service and found capital to start an enterprise. Those who combine business with studies are likely to be micro entrepreneurs. On the other hand, people as old as 60 years may be retiring from their businesses and leaving the urban towns for their home towns. These might explain why most of the entrepreneurs were of the age bracket 35-60 years.

All respondents were educated beyond secondary level (O'Level). Only two (22.2 %) of the nine entrepreneurs stopped at Nigerian Certificate in Education (NCE) or Ordinary National Diploma (OND), while 7 of them (77.7 %) had a degree or Higher National Diploma (HND) and higher educational qualifications. Nigerian entrepreneurs were, therefore, mostly graduates.

Education exposes and emboldens people to venture into enterprises. The more educated a person, the more likely he can take a plunge into ventures. Educated people know of more opportunities than the uninformed. These might explain why all the entrepreneurs were of high education profile.

Table 3 is a summary of the knowledge of CSR practices by entrepreneurs in Enugu, Nigeria.  $AMS = 3.00$ ,  $CV = 4.68$ .

**Decision rule:** Reject  $H_{01}$ , if  $CV > AMS$ ; accept  $H_{01}$ , if  $CV < AMS$ .

**Decision:** Reject  $H_{01}$  – SME operators in Enugu are not ignorant of CSR practices. Accept the alternative hypothesis – SME operators in Enugu are ignorant of CSR practices.

Since over 77 % of the entrepreneurs were graduates and most of them were aged between 35 and 60, their responses ought to be reliable. Similarly, 83.3 % of the community leaders were both graduates and aged 35-60. To this extent, their responses ought to be reliable as well.

From the elicited information, all entrepreneurs proved ignorant of CSR practices. Thus, the CVs for the nine questions on knowledge of CSR practices were greater than AMS, showing no knowledge of the practices of CSR by small and medium entrepreneurs.

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**Table 3: Knowledge of CSR practices by small and medium entrepreneurs**

Subject	Likert scale (x)					$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	$H_0$
SME should focus on maximizing profit for its owners without considering the interests of the host community.	1	2	3	4	5	9	44	4.89	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	1	8						
Fx	0	0	0	4	40						
SME should not look beyond profit and consider the interests of the host community.	1	2	3	4	5	9	45	5.0	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	0	9						
Fx	0	0	0	0	45						
SME should not look beyond profit and take responsibility for the impact of the organization's activities on customers.	1	2	3	4	5	9	43	4.78	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	2	7						
Fx	0	0	0	8	35						
SME should not look beyond profit and take responsibility for the impact of the organization's activities on employees.	1	2	3	4	5	9	41	4.56	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	4	5						
Fx	0	0	0	16	25						
SME should not look beyond profit and take responsibility for the impact of the organization's activities on the environment.	1	2	3	4	5	9	38	4.22	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	1	5	3						
Fx	0	0	3	20	15						
The obligation SME owes to host community stops at offering a few job opportunities to indigenes.	1	2	3	4	5	9	44	4.89	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	1	8						
Fx	0	0	0	4	40						
SME ought not to undertake sustainable development projects for a host community.	1	2	3	4	5	9	42	4.67	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	3	6						
Fx	0	0	0	12	30						
SME does not need to discuss development project in host community with indigenes.	1	2	3	4	5	9	43	4.78	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	2	7						
Fx	0	0	0	8	35						
It is enough for a business organization to occasionally make philanthropic cash donations to individual, family and community projects of a host community.	1	2	3	4	5	9	45	5.0	CV>AMS	Reject $H_{01}$	$H_{01}$
Frequency (F)	0	0	0	0	9						
Fx	0	0	0	0	45						
<b>Average CV</b>								<b>4.68</b>	<b>CV&gt;AMS</b>	<b>Reject <math>H_{01}</math></b>	<b><math>H_{01}</math></b>

Source: Field work, 2013

Specifically, because of lack of knowledge of CSR practices, all the entrepreneurs want to focus on maximizing profit for the business owners without considering the interests of the host community. They would not look beyond profit to consider the interests of the host community or to take responsibility for the impact of the organization's activities on employees, customers and the environment. All their obligation to the host community stopped at offering a few job opportunities to indigenes. They would rather leave the provision of social services for the host community to government and charity organizations.

The average of the CVs (4.68) was also greater than AMS (3.00), leading to the rejection of null hypothesis ( $H_{01}$ ) and the acceptance of the alternative hypothesis, i.e. SME operators in Enugu were ignorant of CSR practices. This ignorance simply dictates neglect of CCI by SMEs.

Table 4 shows the effect of poor human capital on community corporate involvement of SME in Enugu.

**Table 4: Effect of poor human capital on CCI of SMEs in Enugu**

Subject	Likert scale (x)					$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	$H_0$
Poor human capital affects community corporate involvement of SMEs in Enugu.	1	2	3	4	5	9	35	3.89	CV>AMS	Reject $H_{02}$	$H_{02}$
Frequency (F)	0	1	2	2	4						
Fx	0	1	6	8	20						

Source: Field work, 2013

AMS = 3.00, CV = 3.89

**Decision rule:** Reject  $H_{02}$ , if CV > AMS; accept  $H_{02}$ , if CV < AMS.

**Decision:** Reject  $H_{02}$  - Poor human capital does not affect community corporate involvement of small and medium enterprises in Enugu. Accept the alternative hypothesis - Poor human capital affects community corporate involvement of small and medium enterprises in Enugu.

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Thus, poor human capital affect community corporate involvement of SMEs in Enugu. This finding supports earlier report that developing countries have surplus labour without human capital - the stock of competencies, knowledge and personality attributes embodied in the ability to perform labour so as to produce economic value, which are critical for the economic and political development of a country. This lack of critical skills needed for industrial sector also reflects in the ignorance of SME operators regarding CSR practices [35] as well as dwindling SME sector, as reported in earlier studies [3, 32].

Table 5 shows the effect of poor business environment on community corporate involvement of SMEs in Enugu.

**Table 5: Effect of poor business environment on CCI of SMEs in Enugu**

Subject	Likert scale (x)					$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision	H <sub>0</sub>
Inadequate government incentives affect SME performance and hinder its involvement in sustainable development projects in host community.	1	2	3	4	5	9	45	5.00	CV>AMS	Reject H <sub>03</sub>	H <sub>03</sub>
Frequency (F)	0	0	0	0	9						
Fx	0	0	0	0	45						
Business-unfriendly environment affects SME performance and hinders its involvement in sustainable development projects in host community.	1	2	3	4	5	9	43	4.78	CV>AMS	Reject H <sub>03</sub>	H <sub>03</sub>
Frequency (F)	0	0	0	2	7						
Fx	0	0	0	8	35						
Poor doing-business-environment affects SME performance and hinders its involvement in sustainable development projects in host community.	1	2	3	4	5	9	45	5.00	CV>AMS	Reject H <sub>03</sub>	H <sub>03</sub>
Frequency (F)	0	0	0	0	9						
Fx	0	0	0	0	45						
High cost of capital affects SME performance and hinders its involvement in sustainable development projects in the host community.	1	2	3	4	5	9	37	4.11	CV>AMS	Reject H <sub>03</sub>	H <sub>03</sub>
Frequency (F)	0	0	1	1	6						
Fx	0	0	3	4	30						
Average CV								4.72	CV>AMS	Reject H <sub>03</sub>	H <sub>03</sub>

Source: Field work, 2013

AMS = 3.00, CV = 4.72

**Decision rule:** Reject  $H_{03}$ , if  $CV > AMS$ ; accept  $H_{03}$ , if  $CV < AMS$ .

**Decision:** Reject  $H_{03}$  - Poor business environment does not hinder community corporate involvement of small medium enterprises in Enugu. Accept alternative hypothesis: Poor business environment hinders community corporate involvement of small and medium enterprises in Enugu.

The information gathered showed that all entrepreneurs submitted that business environment was poor. Each of the CVs for the four questions on business environment was greater than AMS, showing that poor business environment hindered CCI of SMEs in Enugu. Specifically, all the entrepreneurs were of the view that inadequate government incentives, business-unfriendly environment, poor doing-business-environment, and high cost of capital hinder community corporate involvement of SMEs in Enugu.

The average of the CVs (4.72) was also greater than AMS (3.00), leading to the rejection of  $H_{03}$  and the acceptance of the alternative hypothesis, i.e. poor business environment hinders community corporate involvement of small medium enterprises in Enugu. This finding supports earlier reports on unfavourable business environment in Nigeria [23, 48]. "Doing Business" environment was ranked abysmally poor (beyond 100th position) in three consecutive years (2005, 2006 and 2007) in Nigeria by the Report of the World Bank on 178 countries around the world. Absence of or decaying infrastructure, weak government commitment and inadequate incentives were some of the myriads of challenges plaguing the business environment in Nigeria [33]. Cut-throat lending rates (19.5-31.2%) by commercial banks and astronomically high exchange rates of Naira to the US Dollar were biting problems of SMEs [34]. Little wonder, the annual growth rate of SMEs declined from 20% in 1975-1979 to appalling negative values of -2.6% in 1990-1994 and -0.9% in 1995-1999

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periods [49]. Consequently, three out of four SMEs die every year in Nigeria, and 9 out of 10 persons, who wished to go into business in Nigeria, do not eventually get to start [6].

Agbase [50] decried the situation of no light, no water, no roads, no security, no education, no health in Nigeria, adding that the country's human potentials have been neglected and its natural resources put to waste. Consequently, Nigerians, including entrepreneurs, are confused, burdened by hyphenations. Statistics from the National Bureau of Statistics [34] showed that Nigeria's population grew at 2.83 %, while the population of people in the manufacturing sector grew at 2.09 % per annum between 2001 and 2005. The growth rate of manufacturing were - 5.22 % (2002), -8.28 % (2003), and -25.01 (2004). The percentage economic contribution by manufacturing industries remained abysmally low at between 1.78 % and 1.9 % from 2001 to 2005. The average economic productivity profile of manufacturing industries dwindled from very low 0.75 million Naira in 2002 to even much worse 0.35 million Naira in 2005.

Ogunbayo [51] noted that manufacturing concerns in Nigeria were downsizing to diversify activities from production to importation due to harsh business climate in Nigeria. Some outfits were relocating to neighbouring West African countries because of decaying infrastructural facilities, worsening energy problem, high cost of transportation due to bad roads, police checkpoints, spiralling cost of fuel, all of which help to cripple manufacturing. Brain drain is a pronounced problem in Nigeria. Spring [52] observed that business climate in Nigeria is not only poor, but has unchanging and/or mixed trends.

The data from presidents of town unions helped to corroborate the information from SME operators regarding community corporate involvement of SMEs in Enugu. Table 6 summarizes the personal data of host town union presidents.

**Table 6: Personal data of host town union presidents**

Subject		No.	%
Age (years)	18-24	-	0
	25-34	0	0
	35-44	2	33.3
	45-60	3	50.0
	≥ 60	1	16.7
Marital status	Single	0	0
	Married	6	100
	Separated	0	0
	Divorced	0	0
	Widowed	0	0
Highest educational qualification	FSLC	0	0
	O'Level	0	0
	NCE/OND	1	16.7
	≥ Degree/HND	5	83.3

Source: Field work, 2013

No host town union president was aged 34 years and below. One of them (16.7 %) was aged 60 years and above. Two of them (33.3 %) were aged 35-44 years. Three others (50 %) were aged between 45 and 60 years. Thus, most host town union presidents were aged between 44 and 60 years, followed by 35-44 years bracket.

Town union presidents are usually people who are exposed in life. They are either actively engaged in productive ventures or retired and have come back to their home towns. These might explain why all the presidents were aged 44 years and above.

Only one of the six host town union presidents stopped at OND or NCE; others were graduates. This is expected for citizens of indigenes

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communities in urban towns. More educational facilities are available in urban areas, and aborigines benefit from them by reason of advantageous proximity in terms of influence and lower cost.

Table 7 summarizes the information regarding the existence of at least one SME in the host community.

**Table 7: Presence of SME in the host community**

Subject	Likert scale (x)					$\Sigma F$	$\Sigma Fx$	CV	Remark	Decision
	1	2	3	4	5					
Presence of at least one small or medium enterprise in the community.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					

Source: Field work, 2013

AMS = 3.00, CV = 5.0

**Decision rule:** Answer is in affirmative, if  $CV > AMS$ ; answer is negative, if  $CV < AMS$ .

**Decision:** Answer is in affirmative, since  $CV (5.0) > AMS (3.0)$ .

The affirmative answer showed that there exists at least one SME in the host community in Enugu. It also showed that the citizens of the community were aware of the presence of the SME/s.

Table 8 summarizes community corporate involvement of SMEs.

**Table 8: CCI of SMEs**

Subject	Likert scale (x)					ΣF	ΣFx	CV	Remark	Decision
	1	2	3	4	5					
The company focuses on maximizing profit for its owners without considering the interests of the host community.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
The company does not look beyond profit to consider the interests of the host community.	1	2	3	4	5	6	28	4.67	CV>AMS	Affirmative
Frequency (F)	0	0	0	2	4					
Fx	0	0	0	8	20					
The company does not look beyond profit to take responsibility for the impact of the organization's activities on customers.	1	2	3	4	5	6	27	4.50	CV>AMS	Affirmative
Frequency (F)	0	0	1	1	4					
Fx	0	0	3	4	20					
The company does not look beyond profit totake responsibility for the impact of the organization's activities on employees.	1	2	3	4	5	6	26	4.33	CV>AMS	Affirmative
Frequency (F)	0	0	1	2	3					
Fx	0	0	3	8	15					
The company does not look beyond profit to take responsibility for the impact of the organization's activities on the environment.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
All that the company does for the host community is to offer a few job opportunities to indigenes.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
The company does not sponsor any development project for the host community.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
The company does not discuss with indigenes the strategy for sustainable development the host community.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
The company occasionally makes philanthropic cash donation to individual, family and community project in the host community.	1	2	3	4	5	6	22	3.67	CV>AMS	Affirmative
Frequency (F)	0	0	3	2	1					
Fx	0	0	9	8	5					
The company leaves the provision of social services for host community to government and charity organizations.	1	2	3	4	5	6	30	5.0	CV>AMS	Affirmative
Frequency (F)	0	0	0	0	6					
Fx	0	0	0	0	30					
<b>Average CV</b>								<b>4.72</b>	<b>CV&gt;AMS</b>	<b>Affirmative</b>

Source: Field work, 2013

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AMS = 3.00, CV = 4.72

**Decision rule:** Answer is in affirmative, if  $CV > AMS$ ; answer is negative, if  $CV < AMS$ .

**Decision:** Answer is in affirmative for individual subject matters and the average, since  $CV > AMS$  (3.0).

The affirmative answers showed that the company focused on maximizing profit for its owners without considering the interests of the host community (CV, 5.0); did not look beyond profit to consider the interests of the host community (CV, 4.67); did not look beyond profit to take responsibility for the impact of the organization's activities on customers (CV, 4.50), on employees (CV, 4.33) and on the environment (CV, 5.0); all the company did for host community was to offer a few job opportunities to indigenes (CV, 5.0); the company did not sponsor any development project for the host community (CV, 5.0), nor discuss with indigenes the strategy for sustainable development in the host community (CV, 5.0), but occasionally made philanthropic cash donations to individual, family and community activities in the host community (CV, 3.67); and left the provision of social services for host community to government and charity organizations (CV, 5.0). The average CV value of 4.72 also affirmed submissions. Therefore, the submissions of the town union presidents (consumer side) corroborate those of SME operators (supply side) on the CSR knowledge levels of SME operators and community corporate involvement of SME in Enugu.

### Conclusion and recommendations

SMEs, which should be drivers of sustainable development and equitable distribution of wealth, lack in community corporate involvement apparently because of certain impediments bordering on hostile environment in Nigeria, especially ignorance, poor human capital and poor

business environment. This situation necessitated the present study, which investigated the knowledge of CSR practices of SME operators and community corporate involvements of SMEs in Enugu.

It was discovered that discovered that SMEs operators were majorly ignorant of CSR practices. SMEs maximize profit for their owners without considering the interests of the host community. They do not look beyond profit to consider the interests of the host community, nor to take responsibility for the impact of the organization's activities on customers, employees and the environment. All SMEs do for host community is to offer a few job opportunities to indigenes. They do not sponsor any development project for the host community, nor discuss with indigenes the strategy for sustainable development in the host community, but occasionally make philanthropic cash donations to individual, family and community activities in the host community, and leave the provision of social services for host community to government and charity organizations. These findings were based on submissions from supply (SMEs) and consumer (community leaders) sides in Enugu.

Raising the awareness of SME operators and community members on CSR practices may help to improve CCI of SMEs in developing countries. Non-overnmental organizations can help create and raise the needed awareness. It is, therefore, recommended that NGOs should explore avenues to enlighten communities and SME operators on CSR practices.

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## **STAFF TURNOVER IN SMALL AND MEDIUM ENTERPRISES IN ENUGU, NIGERIA**

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### ***Abstract***

*Nigeria has been described in several reports as business-unfriendly. The brunt is borne by small and medium enterprises (SMEs) sub-sector, which should be the engine room of the national economy. Reports show that in advanced economies of the West and Asia, poor business environment leads to labour turnover, which in turn, affects enterprises. Could this apply to Nigeria? This study investigated staff turnover, factors of staff turnover intentions and effects of staff turnover on SMEs operating in Enugu, Nigeria. The study adopted a multi-stage sampling technique to select targets that meet the criteria of SMEs from membership of groups of organized private sector (OPS) in Enugu, and to purposively select respondents from staff of selected SMEs. Questionnaire and interview were used to elicit information from respondents, with likert-scaled options. Average mean score technique was adopted to analyze the data and to test the null hypotheses. Findings showed that job stress, job*

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*stressors, lack of commitment, job dissatisfaction, organisational instability, personal agency, a sense of powerlessness, locus of control, personal control, economic reasons and role ambiguity are all factors of labour turnover intention; management practices and policies affect staff turnover intention; demographic factors affect staff turnover; and unemployment situation affects staff turnover, which adversely affect production, sales, customer satisfaction and costs of recruitment and training in SMEs. These factors ought to be avoided or minimized for optimum performance of the enterprise.*

### **Introduction**

In developed and developing nations, small and medium enterprises (SMEs) are engines of economic growth and development. On the average, SMEs represent 80-90 % of enterprises and 60-70 % of domestic employment. They are recommended as principal means for achieving equitable and sustainable industrial diversification in developing economies, like Nigeria. They brought about the growth of the developing countries of the world, otherwise known as the BRICS countries (Brazil, Russia, India, China, South Africa) and the rapid economic transformation of the Asian Tigers [1,2].

In India, SMEs run 97 % of the industrial units (10.5 million), employ 45 % (25 million) of labour force, and contribute 45% overall export and 7 % of GDP. In China, they contribute 60 % of her industrial output with over 23 million SMES, 60 % of GDP, over 75 % of the work force, 60 % of total exports, 99 % of all registered companies, and creation of most new jobs in all sectors of the economy (Banga and Sharma, 2008). As part of Nigeria's Second National Development Plan (1970-1975), the importance of the SME sub-sector and the need to develop it was encapsulated in the Small Industries Development Plan (SIDP). The major

goal of SIDP was the provision of technical and financial supports to the existing and prospective SMEs. Consequently, SMEs in Nigeria have helped in the transformation of traditional indigenous industries and stimulation of indigenous entrepreneurship and technology, and remain an unquestionable source for industrial growth and development [3].

Nonetheless, SMEs operate in a very hostile environment characterized by myriad of problems that hinder their performance. Most SME operators in Nigeria lack the basic management skill and this hinders their optimum performance in handling resources (man, machine, money and materials). Resultantly, there is very high mortality rate among the SMEs in Nigeria [3].

SMEs need human capital stock to function effectively. Retaining employees in SMEs is critical to minimizing costs of induction and training for new staff and losing skilled staff to competitors. Hiring and training a replacement worker for a lost employee costs approximately 50 percent of the worker's annual salary [4]. Meaghan *et al* [5] asserted that the loss of intellectual capital adds to the cost of staff turnover since not only do organizations lose the human capital and relational capital of the departing employee, but also competitors are potentially gaining these assets. Hence, staff turnover is an important issue in SMEs in Nigeria.

Staff (or labour) turnover refers to voluntary resignation from or involuntary loss of a job. According to Kirton and Greene [6], decisions on staff turnover (staff turnover intentions) are usually based on subjective interpretation of a range of internal or external factors in the workplace. The internal factors include job satisfaction, organizational commitment and age [7]. The external factors usually comprise the social environment, educational experiences, family responsibilities, religious beliefs and changing work values. Increasing rate of staff turnover is a disturbing

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problem to employers in Nigeria, especially in the SME sub-sector mostly affected by both voluntary and involuntary turnover of labour as a result of the search for job satisfaction and higher wages fuelled by the get-rich-quick mentality of an average Nigerian youth [8].

This study, therefore, investigated staff turnover, factors of staff turnover intentions and effects of staff turnover on SMEs operating in Enugu, Nigeria. Specifically, the study will attempt to establish the existence of significant staff turnover, the factors responsible for staff turnover intentions and the effects of staff turnover on SMEs in Enugu urban. The study was guided by the appropriate research questions and null hypotheses. The study adopted a multi-stage sampling technique to select targets that meet the criteria of SMEs from membership of groups of organized private sector (OPS) in Enugu, and to purposively select respondents from staff of selected SMEs. Questionnaire and interview were used to elicit information from respondents, with likert-scaled options (strongly agree, 4; agree, 3; disagree, 2; and strongly disagree, 1). Average mean score technique was adopted to analyze the data and to test the null hypotheses.

The significance of this study is both theoretical (enrichment of the existing literature on staff turnover in SME) and practical (educating stakeholders). Enugu was selected for the study because of its strategic position as the political headquarters of the former Eastern Region of Nigeria with the fastest growing economy and industrialisation. It has been described as the home of business minds. The major inhabitants, Igbos, are known for enterprising spirit [3].

## **Review of related literature**

Related literature that needs to be reviewed for this study as conceptual and theoretical literature are concepts of SME, staff turnover, staff turnover intention, leadership styles in SMEs and human capital. Some empirical studies are also reviewed, leading to the identification of the literature gaps that justify this study.

### **Concept of small and medium enterprise (SME)**

Four categories of enterprises identified globally are micro/cottage, small, medium and large enterprises. Categorization of enterprises vary among countries and agencies, but usually based on some quantifiable measures, such as the number of people employed by the enterprise, the working capital (running cost per annum, including staff salaries, rent, utilities and other expendables), and the period.

Nigeria's National Council on Industry, NCI [9] adopted micro/cottage enterprise as one with a total capital outlay of not more than N1.5 million (excluding cost of land) and/or a workforce of not more than 10 persons; small enterprise as one with over =N=1.5 million but not more than =N=50 million (excluding cost of land) and/or 11-100 workers; medium enterprise as one with over N50 but not more than =N=150 million (excluding cost of land) and/or 101-300 workers; and large enterprise as one with over =N=150 million (excluding cost of land) and/or over 300 workers.

### **Concept of staff turnover**

In human resources management and organizational behaviour, the classical staff turnover is the rotation of employees around the labour market among firms, jobs and occupations, and among the states of

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employment and unemployment [10]. According to Woods [11], staff or labour turnover is the quotient obtained by dividing the number of organizational members who have left by the average number of people in that organization during the period. Frequently, managers refer to turnover as the entire process associated with filling a position vacated either voluntarily or involuntarily. This term is also often utilized in efforts to measure relationships of employees in an organization as they leave, regardless of reason. The unfolding model of voluntary turnover represents a divergence from traditional thinking [12] by focusing more on the decisional aspect of staff turnover, in other words, showing instances of voluntary turnover as decisions to quit. Indeed, the model is based on a theory of decision making, image theory [13].

### **Concept of staff turnover intention**

Researchers [14,15] have attempted to answer the question of what determines people's intention to quit jobs by investigating possible antecedents of employees' intentions to quit. But, there has been little consistency in findings due partly due to the diversity of employees included in the studies.

Job stress and a range factors that lead to job-related stress (stressors), lack of commitment to the organisation, and job dissatisfaction make employees to quit. Other factors, like personal agency, refer to concepts, such as a sense of powerlessness, locus of control and personal control. Locus of control refers to the extent to which people believe that the external factors, such as chance and powerful others, are in control of the events which influence their lives [16]. Using economic model, Mano et al [17] showed that people quit from organization due to economic reasons and these can be used to predict the labour turnover in the market. Good local labour market conditions improve organizational stability. Large organizations can provide employees with better chances for

advancement and higher wages, and hence ensure organizational attachment [18]. Trevor [19] argues that local unemployment rates interact with job satisfaction to predict turnover in the market.

Role stressors also lead to employee turnover. Role ambiguity refers to the difference between what people expect from the job and what should be done. This causes uncertainty about what the role should be. It can be a result of misunderstanding what is expected, how to meet the expectations, or the employee thinking the job should be different. Insufficient information on how to perform the job adequately, unclear expectations of peers and supervisors, ambiguity of performance evaluation methods, extensive job pressures, and lack of consensus on job functions or duties may cause employees to feel less involved and less satisfied with their jobs and careers, less committed to their organizations, and eventually display a propensity to leave the organisation [20]. Failure of management/supervisors to clearly spell out employee roles accelerate the degree of employees quitting their jobs. Some staff turnover factors that are, in part, beyond the control of management include the death or incapacitation of a member of staff. Other factors classed as involuntary for staff turnover have to do with the need to provide care for children or aged relatives.

According to Zuber [21], organizational factors for staff turnover include organisational instability. Employees are more likely to stay when there is a predictable work environment and vice versa. Organizational inefficiency leads to high level of staff turnover. Quantitative approach to managing the employees leads to disenchantment of staff and to labour turnover. Adopting a cost-oriented approach to employment costs increases labour turnover. Organisations with strong communication systems have lower turnover of staff because employees have a strong

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need to be informed. Employees feel comfortable to stay longer, in positions where they are involved in some level of the decision-making process. That is employees should fully understand about issues that affect their working atmosphere. But in the absence of openness' in sharing information and employee empowerment, the chances of continuity of employees are minimal. A high labour turnover may mean poor personnel policies, poor recruitment policies, poor supervisory practices, poor grievance procedures, or lack of motivation. All these factors contribute to high employee turnover in the sense that there is no proper management practices and policies on personnel matters, hence employees are not recruited scientifically, promotions of employees are not based on spelled out policies, no grievance procedures in place and thus employees decides to quit.

Griffeth et al [22] noted that pay and pay-related variables have a modest effect on turnover. When high performers are insufficiently rewarded, they quit. On the other hand, jobs with adequate financial incentives retain employees and vice versa. Other factors which make employees to quit organisations are poor hiring practices, managerial style, lack of recognition, lack of competitive compensation system in the organisation and toxic workplace environment [10].

Demographic factors (age, tenure, level of education, level of income, and job category in terms of managerial or non-managerial) have also been found to have stable relationship with turnover intention. However, several studies have reported negative relationship between turnover intention and three demographic factors - age, tenure, and income level [23-25]. Amount of education, on the other hand, is found to be positively associated with turnover, suggesting that the more educated, employees quit more often [26]. Based upon the works of Sakamota and Powers [27] and Psacharopoulos and Woodhall [28], human capital theory rests on the assumption that formal education is highly instrumental and

even necessary to improve the production capacity of an employee. That, notwithstanding, the amount of education acquired by an employee is found to be positively associated with turnover - suggesting that the more educated employees quit more often. Wai and Robinson [23] found that non-managerial employees are more likely to quit than managerial employees.

The controllable factors are job satisfaction (satisfaction with pay, satisfaction with nature of work, and satisfaction with supervision), organizational commitment, and organizational justice (distributive and procedural). Many studies report a consistent and negative relationship between job satisfaction and turnover [29], as dissatisfied employees are more likely to leave an organization than satisfied ones. Turnover studies in Singapore that supported the negative relationship between job satisfaction and turnover include Lam et al. [30], Koh and Goh [31], and Aryee et al [32]. Although, a past research suggests a stable negative relationship between job satisfaction and turnover, job satisfaction alone has been found to account for small percentage of the total variance in a turnover model – less than 15%.

The study by Koh and Goh [31] is the only one that investigated the effects of various types of job satisfaction on turnover intention in Singapore. They classified job satisfaction into eight categories: supervision, company identity, kind of work, amount of work, physical working conditions, co-workers, financial rewards, and career future. There are three major limitations of their study. First, they subsumed organizational commitment (company identity) within job satisfaction. Thus, their findings have confounded the effects of job satisfaction and organization commitment. The second major problem of their study is that some of their measures had low reliability of scales, making their findings

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immeasurable. The last major limitation of their study concerns generalization of their findings. The authors examined non-managerial clerical employees in the banking industry which is a highly specific group of employees.

In this study, three facets of job satisfaction included are pay, nature of work, and supervision. These are relevant in the Nigerian context. First, based on experiences and innumerable anecdotes, pay is considered one of the most important factors influencing employee turnover in Nigeria. Materialistic Nigerian youths hop from one job to the other for a little extra naira.

Second, the nature of work is becoming an important consideration because of greater affluence as well as higher education levels of Nigerians. Koh and Goh [31] found that satisfaction with the nature of work was negatively associated with turnover intention in their sample of clerical employees in the banking industry. The relationship will hold for other jobs and industries too, especially the SMEs.

Third, Debrah [33] noted that a supervisor with poor interpersonal skills and who is also inflexible very quickly drives employees away. The author emphasized the critical role of supervision in retaining employees. Organizational commitment was a better predictor of turnover than job satisfaction [34]. Aryee *et al* [32] reported a negative relationship between organizational commitment and turnover intention among professional accountants. Similarly, Wong *et al* [34], in their longitudinal study of 485 graduate students, found organizational commitment a strong predictor of turnover. Several other scholars [35-37] have also found organizational commitment an important predictor of turnover.

In the past two decades, there has been an increasing amount of research on organizational justice - a term used to describe fairness in the workplace - concerned with the ways in which employees determine if they have been treated fairly in their jobs and the ways their views influence

other work-related variables [38]. There are two forms of organizational justice: distributive justice, which describes the fairness of the outcomes an employee receives; and procedural justice, which describes the fairness of the procedures used to determine those outcomes. Previous studies mostly on American samples have shown that organizational justice affects turnover intention negatively [26].

Uncontrollable factors include perceived alternative employment opportunities (PAEO). It refers to an individual's perception of the availability of alternative jobs in the organization's environment. It is the function of labour market conditions. Employees perceive more alternative job opportunities when the job market is tight and less alternative job opportunities when there is unemployment. Both PAEO and labour market conditions are positively associated with turnover [39].

Effects of staff turnover have also been reported. Voluntary quits and the subsequent replacement process entail manifold costs to the organisations [40]. Turnover has some significant effects on organisations [41-43]. Many researchers argue that high turnover rates might have negative effects on the profitability of organisations if not managed properly [44-46]. Turnover has many hidden or invisible costs [47] and these invisible costs are results of incoming employees, co-workers closely associated with incoming employees, co-workers closely associated with departing employees and position being filled while vacant. And all these affect the profitability of the organization. Catherine [48] argue that turnover include other costs, such as lost productivity, lost sales, and management's time.

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### **Concept of leadership styles in SMEs**

Leadership styles are autocratic, manipulative, laissez-faire, paternalistic and participative. Early studies of employment relations in small and medium-sized firms frequently portrayed SME management as autocratic, the belief being that, in the absence of formal procedures and worker collective voice to enforce adherence to rules of engagement between management and employees, owner-managers were able to fashion employment relations to their own advantage through informal systems of patronage, kinship and favouritism – what Scase [49] has termed developing networks of personal allegiance. It later became apparent that management styles were not simply determined by the structure of the workplace – its size and ownership – though these factors played a role. Thus, small enterprise is managed by its owner in a personalized way without any formalized management structure. SME managers have discretion as to how to manage employees, the choices they make being influenced by the skills and bargaining power of different types of worker in the firm, product and labour market conditions, and perceptions of fairness and justice within the firm [50].

There are reports on heterogeneity within the SME sector [51], the role for managerial discretion, and the constraints that managers faced in exercising this discretion, such that managerial styles could vary across and within SMEs, as well as over time. Autocratic management styles differ in firms according to size. The styles professed by managers affect the way employees in those same workplaces perceive management. In spite of a stronger belief among SME managers than large-firm managers that those at the top were best placed to make decisions, small-firm managers were more likely to at least discuss the implications of changes with employees. There might be a number of possible explanations for these findings. It may be that the physical proximity of SME managers to employees makes the environment more conducive to discussions about

changes, or SME managers may be more constrained in making decisions without discussions with staff than managers in larger firms. Another possibility is that change in workplaces belonging to large firms may be initiated outside the workplace, perhaps higher up in the firm, offering workplace managers fewer opportunities to engage with employees at workplace level prior to change.

### **Human capital theory**

Human capital is the stock of competencies, knowledge and personality attributes embodied in the ability to perform in the workplace so as to produce economic value. It is the workforce, one of three factors of production. Human capital is substitutable, but not transferable like land, labor, or fixed capital.

Human capital formation refers to the process of acquiring and increasing the number of persons who have the skills, education and experience, which are critical for the economic and political development of a country. The growth of tangible capital stock depends to a considerable extent on human capital formation. Its development involves health facilities; on-the-job training; formal education at the primary, secondary and tertiary levels; study and extension programmes; migration of individuals and families to adjust to changing job opportunities; and import technical assistance. The growth of tangible capital stock depends to a considerable extent on human capital formation [52].

Human capital management is a strategic approach to people management that focuses on the knowledge, skills, abilities and capacity to develop and innovate possessed by people in an organisation. The success and failure of SMEs largely depends on people (staff) management, and so is the staff turnover and turnover intentions, which are

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influenced by the gender of the manager. Hence, human capital, its formation and management are very relevant to this study on staff turnover intentions in male-headed and female-headed SMEs.

### **Empirical Studies**

Khatri [53] examined three sets of antecedents of turnover intentions in five (5) companies selected from food & beverage, retail and shipping industries in Singapore, Asia. Findings of the study suggest that the extent of controllable turnover was much greater than uncontrollable turnover and that poor management practices were the major causes of employee turnover. Ambrose and Tulik [54] reviewed the principal findings of over 200 studies between 1990 and 1997, submitting that employee performance is a joint function of ability and motivation, and that one of the primary tasks facing a manager is motivating employee to perform his best.

Ruane and Sutherland [55] sought to extend existing research on firm heterogeneity by exploring whether differences in firm performance characteristics may in part be related to the sex of the proprietor in Irish manufacturing firms. Results showed that, when compared with all other firm types, female-owned firms exhibited inferior firm performance characteristics. However, when they controlled for the ownership structure of the firm and compared female sole-proprietor firms with male sole-proprietor firms, the underperformance difference reduced. Examining separately firms that are jointly owned by males and females they discovered that joint ownership firms significantly under-performed compared to those owned by males.

Lotti (2006), as cited in OECD [56], sought to quantify the economic impact of women's entrepreneurship around the world. Women are one of the most relevant untapped resources for entrepreneurship. Very little is known about the economic relevance of women's

entrepreneurship, about the policy instruments that are effective in raising entrepreneurship rates among women, and about the economy-wide effects of higher participation of women in entrepreneurial activity. The policy rationale for the development of women's entrepreneurship was traditionally focused on women's equality and empowerment, and social inclusion. Only in the more recent years, it has become clear that women entrepreneurs create new jobs for themselves and others and can provide society with different perspectives and approaches to management, organisation and business issues. The entrepreneurial gap between men and women in Italy, defined as the difference between male- and female-run firms divided by the total number of firms, increased over time: from 46.9% in 2000 to 47.8% in 2005.

Robb and Watson [57] determined whether potential differences in the performance of male- and female-controlled SMEs disappear when appropriate size and risk adjusted performance measures are used and other key demographic differences are controlled. Results showed that, after controlling for important demographic differences, female-controlled SMEs do not underperform male-controlled SMEs in terms of survival rates, return on assets (ROA) or in risk-adjusted terms. These results demonstrated that female-controlled SMEs do not underperform male-controlled SMEs either in early stage startups or in established businesses when using alternatives to the typical size measures (such as sales, employment, and assets) used in previous research studies.

Ahmad and Shahzad [58] investigated the impact of three human resources practices (compensation, performance evaluation, and promotion practices) on the perceived performance of university teachers in Azad, Jammu and Kashmir (AJK) in Pakistan. The compensation practices were significantly positively related to employee performance,

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whereas performance evaluation and promotion practices were insignificantly related with the performance of the university teachers.

Mumtaz, Khan, Aslam and Ahmad [59] studied the impact of human resources practices on job satisfaction of university teachers in Pakistan, using self-reported survey method to collect data from 100 selected lecturers. Results showed the dynamic process through which human resources practices (compensation practices, employee performance evaluation practices, promotion practices, empowerment practices) in universities influence individual pattern of job satisfaction over time. Teacher satisfaction was not predicted by this set of human resources practices, so there were some other factors which affect satisfaction.

In a recent study, Izamoje [8] examined the causes, consequences and control of labour mobility in small and medium enterprises in Nigeria, using a triangulation of quantitative and qualitative data. Findings revealed that respondents' monthly income was related exhibited tendency of respondents towards labour mobility. Sait, Nawaz and Jan [60] worked on factors of job satisfaction among staff of universities in Pakistan. Data on involvement and commitment were regressed against data on employee attitudes with positive or negative consequences. Results showed that prediction of job satisfaction as well as job dissatisfaction (absenteeism and turnover) is mostly founded on the factors of job satisfaction attitudes like pay, work, supervision, promotion, co-workers and environment.

Most of the studies on turnover were conducted in the Asia and Western organizational contexts. Thus, findings of these studies may not be applicable to organizations in Nigeria due to vast differences in the economic, legal, social, and cultural environments. Some independent variables relatively unexplored in turnover literature in the West include procedural and distributive justice. Their relationships with turnover intention in SMEs in Nigeria need to be examined. The effects of other

demographic variables (such as age and income), uncontrollable variables (such as perceived ease of movement), and controllable variables (such as satisfaction with pay and organizational commitment) on turnover intention need to be investigated. Besides, researches on SMEs gender-based issues are limited in the Nigerian setting, despite the growing number of female entrepreneurs. Hence, the present study investigated the relationship between staff turnover and the sex of the SME operators in a Nigerian context.

### **Methodology**

The study was undertaken in Enugu urban of Enugu State, Nigeria. The city, aside being the capital of Enugu State, was the centre of the old Eastern Region of Nigeria. It has a high concentration of SMEs. It is largely populated by the Igbo ethnic group with a lot of business activities [61]. Enugu, the headquarters of the former Eastern Nigeria and the political headquarters of the Southeast geo-political zone, once witnessed a vibrant SME sector and the fastest growing and industrialising economy in the world in the early 1960s [3]. This informs the choice of Enugu urban for the study.

This study adopted the descriptive research design, which suits the purpose and is appropriate and advantageous for assessing large and small populations and for reporting the situation without controlling the variables. The target SMEs were selected from the lists supplied by the organised private sector (OPS), since all the fourteen state-owned enterprises (SOEs) in Enugu urban were either moribund or privatized or commercialized large enterprises. OPS in Enugu urban includes the Manufacturers Association of Nigeria (MAN); the Enugu Chamber of Commerce, Industries, Mines and Agriculture (ECCIMA); the Nigerian

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Association of Small and Medium Enterprises (NASME); and the Nigerian Association of Small-scale Industrialists (NASSI).

The selection of target SMEs was based on meeting the criteria for small and medium enterprises, using the 2001 NCI criteria, using a self-reporting preliminary survey questionnaire. However, all the entries on the lists of MAN and ECCIMA fell above the criteria for SMEs. They were, therefore, discarded and the lists from NASME and NASSI were used for the study. The total number of staff (both management and non-management) of the five selected enterprises was 108. This formed the population of study.

The sample size of the study is 85. This was determined using the Yamane (1964) statistical formula:

$$n = N/(1+Ne^2)$$

Where: N = Population size

n = Sample size

e = Level of error = 0.05

1 = Theoretical constant

Substituting in the formula,

$$\begin{aligned} & 108/[1+108(0.05)^2] \\ & 108/1.27 = 291.8 \\ & = 85 \end{aligned}$$

Respondents were purposively selected from each enterprise. The number from each enterprise was proportionate to its worker population. Structured questionnaire was used as instrument for sourcing the primary data, which took place in the last quarter of 2013. The answer options

were in a 4-point likert-scale: strongly disagree (4), agree (3), disagree (2), and strongly agree (1). Experts in Enterprise Development Studies and Measurement and Evaluation validated the instruments.

Average mean score technique was adopted to analyze the data and to test the null hypotheses. AMS was calculated as  $(4+3+2+1 = 10)$  divided by  $4 = 2.5$ . The calculated value (CV) was obtained from the formula:

$$CV = \frac{\sum Fx}{\sum F}$$

Where CV is the calculated value

F is the frequency

x is scale value

**Decision rule:** Reject null hypothesis ( $H_0$ ), if  $CV > AMS$ ; do not reject  $H_0$ , if  $CV < AMS$ .

## **Results and discussion**

Table 3.1 shows distribution of respondents by sample population among the 5 selected enterprises. Seventy-seven (77) completed questionnaire copies were retrieved. This represented 90.6 % of the 85 copies distributed. Table 3.2 shows the results of the comparison of staff turnover rate in SMEs.

Table 3.2. shows that 29 respondents strongly agreed that there was significant staff turnover rate in all the target SMEs, 25 agreed with that submission, 14 disagreed, and 9 strongly disagreed. Calculated value, CV, was 2.96, which was greater than the average mean score, AMS, of 2.5. Thus, the null hypothesis was rejected and the alternative hypothesis

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was accepted as: The rate of staff turnover is higher in female-headed SMEs.

**Table 3.1: Distribution of respondents by SMEs**

SMEs	Staff population	No. of respondents
I	33	26
II	25	20
III	21	17
IV	18	14
V	11	8
<b>Total</b>	<b>108</b>	<b>85</b>

**Table 3.2: Staff turnover rate in male-and female-headed SMEs**

Turnover rate					$\Sigma$	$CV = \frac{\Sigma Fx}{\Sigma x}$	Result	Decision
Scale (F)	4	3	2	1	10			
x	29	25	14	9	77			
Fx	116	75	28	9	228	2.96	C.V>AMS	Reject H <sub>0</sub>

This finding is in agreement with the report of Izamoje [8] that increasing rate of staff turnover had become a disturbing problem to employers in Nigeria, especially in the SME sub-sector. Johnson et al [4] and Meaghan *et al* [5] observed that failure to retain employees in SMEs increased operational costs involved in recruitment, induction and training for new staff to the approximate tune of 50 percent of the lost worker’s annual salary and losing skilled staff to competitors to the further disadvantage of the SME.

Similarly, the factors of staff turnover intentions in SMEs were investigated, as summarized in Table 3.3. Thus, job stress, job stressors, lack of commitment, job dissatisfaction, locus of control, personal agency,

economic reasons, role ambiguity, organizational instability, management practices and policies, communication system, demographic factors, justice and unemployment were identified as significant factors in staff turnover, since the null hypothesis was rejected in each case in favour of the alternative hypothesis.

**Table 3.3: Factors of staff turnover intentions in male- and female-headed SMEs**

Factor of staff turnover intention	AMS	Result	Decision
(i) Job stress	2.65	CV>AMS	Reject H <sub>0</sub>
(ii) Job stressors	2.60	CV>AMS	Reject H <sub>0</sub>
(iii) Lack of commitment	2.55	CV>AMS	Reject H <sub>0</sub>
(iv) Job dissatisfaction	2.98	CV>AMS	Reject H <sub>0</sub>
(v) Locus of control	2.72	CV>AMS	Reject H <sub>0</sub>
(vi) Personal agency	2.61	CV>AMS	Reject H <sub>0</sub>
(vii) Economic reasons	2.97	CV>AMS	Reject H <sub>0</sub>
(viii) Role ambiguity	2.71	CV>AMS	Reject H <sub>0</sub>
(ix) Organizational instability	2.99	CV>AMS	Reject H <sub>0</sub>
(x) Management practices and policies	2.63	CV>AMS	Reject H <sub>0</sub>
(xi) Communication system	2.95	CV>AMS	Reject H <sub>0</sub>
(xii) Justice	2.56	CV>AMS	Reject H <sub>0</sub>
(xiii) Demographic factors	2.68	CV>AMS	Reject H <sub>0</sub>
(xiv) Unemployment	2.67	CV>AMS	Reject H <sub>0</sub>

These results are in agreement with some reports on studies carried out in Asia and western world. Firth et al [16] and Mano et al [17] reported that job stress, job stressors, lack of commitment to the organisation, and job dissatisfaction make employees to quit their employments. Job dissatisfaction with pay, nature of work, and with supervision have direct relationship with rates of job quit. Dissatisfied employees are more likely to leave an organization than satisfied ones [29-32]. Koh and Goh [31] classified the effects of various types of job satisfaction on turnover intention in Singapore into eight categories:

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supervision, company identity, kind of work, amount of work, physical working conditions, co-workers, financial rewards, and career future.

Other factors that lead to quitting of jobs are personal agency, a sense of powerlessness, locus of control, personal control, and economic reasons. Tor et al [20] observed that management/supervisors often fail to clearly spell out employee roles, leading role ambiguity (uncertainty about what the role should be), which breeds role stressors and causes role stress, and thereby increasing staff turnover intentions.

These factors network with death or incapacitation of staff and environmental challenges to dictate organizational instability. Identification of organisational instability as factor of labour turnover intention is in agreement with the report of Zuber [21] that employees are less likely to stay when there is an unpredictable work environment.

The finding that management practices and policies affect staff turnover intention agreed with the reports of earlier studies. Organizational inefficiency leads to high level of staff turnover. The management practice of quantitative approach to managing employees leads to disenchantment of staff and the attendant labour turnover. Debrah [33] noted that employees quit if the employer has poor and inflexible interpersonal. Kim et al [35], Ben-Bakr et al [36], Tett & Meyer [37] reported organizational commitment an important predictor of turnover. Also, adopting a cost-oriented approach to employment costs increases labour turnover. The use of weak communication systems in an organization leads to staff turnover, since employees' strong desire to be informed is not met. Besides, the management practice of excluding employees from the decision-making process leads to staff turnover. Poor personnel policies, recruitment policies, supervisory practices, grievance procedures, or lack of motivation all lead to high labour turnover. Moorman [38] and Berg [26] noted with mostly American samples that organizational justice affects turnover intention negatively. Often, there is no judicial system in place and this

leads to poor grievance distributive and procedural justice, resulting in staff turnover intention.

The finding that demographic factors affect staff turnover intention concurs with earlier reports. According to Griffeth et al [22] and Abassi et al [10], pay and pay-related variables have a modest effect on turnover, with high performers quitting when are insufficiently, whereas employees strive to retain jobs with adequate financial incentives. Some demographic factors (age, tenure, level of education, level of income, and job category in terms of managerial or non-managerial) have been found to have stable relationship with turnover intention. However, Wai & Robinson [23], Weil & Kimball [24] and Gerhart [25] reported negative relationship between turnover intention and age, tenure, and income level. Berg [26], Sakamoto and Powers [27] and Psacharopoulos and Woodhall [29] observed that more educated employees quit jobs more often. Wai and Robinson [23] found that non-managerial employees are more likely to quit than managerial employees.

The finding that unemployment situation affects job retention rate is in agreement with some other reports. Price & Mueller [39] submitted that perceived alternative employment opportunities (PAEO) is one of the factors of staff turnover intention and that labour market conditions are positively associated with turnover.

Also, the effects of staff turnover on SMEs are shown on Table 3.4. For each of the tested variables (production, sales, customer satisfaction and costs on recruitment and training),  $CV > AMS$ , leading to rejection of the respective null hypothesis. Therefore, production, sales, customer satisfaction and costs on recruitment and training are adversely affected by staff turnover. This finding confirms earlier reports. John [40], Denvir & McMahon [41], Cantrell and Saranakhsh [42] and Dyke and

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Strick [43] reported that job quits and the subsequent replacement process entail manifold costs to the organisations. Wasmuth & Davis [44], Hogan [45] and Barrows [46] noted that high turnover rates affect profitability of organisations. Philips [47] and Catherine [48] submitted that turnover has many hidden or invisible costs, all of which affect the profitability of the organization lost productivity, sales, and management time.

**Table 3.4: Effects of staff turnover on SMEs**

Effects of staff turnover of SMEs	AMS	Result	Verdict
(i) Production	2.69	CV>AMS	Reject H <sub>0</sub>
(ii) Sales	2.88	CV>AMS	Reject H <sub>0</sub>
(iii) Customer satisfaction	2.63	CV>AMS	Reject H <sub>0</sub>
(iv) Recruitment and training costs	2.59	CV>AMS	Reject H <sub>0</sub>

### Conclusion and recommendation

Most studies on staff turnover were carried out in Asia and the West. This study investigated staff turnover, factors of staff turnover intention and effects of staff turnover on SMEs operating in Enugu, Nigeria – a developing country setting. Target SMEs were selected from membership lists of groups of organized private sector (OPS) in Enugu, while respondents were purposively selected from the staff of selected SMEs for eliciting of information by questionnaire administration and interview. Results showed that job stress, job stressors, lack of commitment, job dissatisfaction, organisational instability, personal agency, a sense of powerlessness, locus of control, personal control, economic reasons and role ambiguity are all factors of labour turnover intention; management practices and policies affect staff turnover intention; demographic factors affect staff turnover; and unemployment situation affects staff turnover, which adversely affect production, sales, customer satisfaction and costs

of recruitment and training in SMEs. These factors ought to be avoided or minimized for optimum performance of the enterprise.

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