Jher Vol. 30, No. 1, September 2023, pp. 97 - 106

Factors Influencing the Growth of Black Soap (*Ncha-nkota*) Enterprise among Communities in Abia State

[1]Alozie, Elsie N., [2]Bassey Ekpenyong A., [3]Oko, Blessing O.
[1]Department of Home Sciences, Michael Okpara University of Agriculture, Umudike
[2]Institute of Public Policy and Administration, University of Calabar, Calabar.
[3]Department of Mass Communication, University of Nigeria, Nsukka

Corresponding author: dilimnedu@yahoo.com

Abstract

This paper examined factors influencing black soap (*ncha-nkota*) enterprise in Abia state. Specifically, it determined human skills-related, economic and marketing factors influencing growth of black soap enterprise in the area of the study. It was a survey. Population was made up of women involved in black soap enterprise in the area. Questionnaire was used to collect data. Data were analysed using frequency counts, and percentages. Findings include eight human skill-related factors, including that black soap processing involves intensive labour ($\overline{X}$ = 4.0), lack of extension services affects scales of production ($\overline{X}$ = 3.9), poor educational level of producers affects the finished product ($\overline{X}$ =3.9), there is low level of skill acquisition in the sector ($\overline{X}$ = 3.4), black soap production exposes women to poor health condition ($\overline{X}$ = 3.7), and others. Other findings include 11 economic factors. These include; high cost of raw materials ($\overline{X}$ = 3.8), lack of collateral to access bank loans ($\overline{X}$ = 3.9), difficult access firewood, ash and water ($\overline{X}$ = 3.9), and others. Further findings include seven market related factors. These include; low price of soap ($\overline{X}$ = 3.7), poor packaging ($\overline{X}$ = 3.9), lack of advertisement of black soap ($\overline{X}$ = 3.8), presence of soap alternatives ($\overline{X}$ = 3.4), among others. Based on the findings three recommendations were made including persons in soap enterprise should create massive awareness about the potentials of the soap, and government should deploy adequate number of extension agents to enhance effective dissemination of appropriate technologies to black soap producers.

Keywords: Black soap, Enterprise, Factors, Growth, Women, Communities.

Introduction

Soap is a cleansing and emulsifying agent used for bathing, washing, and general removal of dirt. There are varieties of soap and they play an essential role by safely and effectively removing dirt, germs and other contaminants, thus promoting hygienic lifestyle. They are therefore, indispensable items as a daily requirement in homes, offices, schools, hospitals, restaurants, etc (Foraminifera, 2018). Soaps are available in different forms, including liquid, detergent, powder and bar soaps. There is also the African traditional black soap. It is soap produced from plant materials, and is still widely used, modern developments in the soap industries. African black soap originated from the Yoruba people in Nigeria, and it is locally known as *Ose dudu*. The Yoruba word *Ose* means soap

and *dudu* means black (Bella, 2011). Black soap is known by different names across Nigeria; it is called *Sabilumsalo* (drinking soap) by the Hausas, *Ose-dudu* or *Abuwe* by the Yorubas and *Ncha-nkota* (scooping soap) by the Igbos (Mongadi, et al., 2012; Summers, 2016). There are more than 100 different varieties of African black-soap with the colour varying from light brown, beige, and grey to jet black, depending on the indigenous ingredients and the production method employed (Bella 2011).

Fasola, Aponmade & Aponjolosun (2020), noted that, black soap is mostly hand crafted by the village women in Africa, and produced for their personal use and for their families. According to Raji et al. (2013), black-soap enterprise is an industry that is exclusively meant for the women folk, and has contributed meaningfully to the livelihood of the women in the rural areas of Nigeria. Accordingly, Nigerian women have been described as the backbone of rural development and are actively involved in several entrepreneurial activities as well as societal roles (Abdullahi, et al., 2015). Livingstone & Ruhindi (2011), note that, in the pastoralist communities, women groups play vital roles in economic contribution of the family. In groups, they can act as supporters for individual loans, to mobilize the funds to expand or start a business, help to mitigate poverty and reinforce existing social capital. Handaragama *et al***.** (2013) states that**,** in Thunkama, Ethiopia, for instance, the economic well-being of the family is initiated by women in the families since they perform a significant role in their family economy. Adebowale (2014) also affirms that, the economic contribution of rural women to the community development through handcrafts such as the traditional pot making cannot be over emphasized. Thus, the African black soap is a source of income to women and can be started with small capital.

African black soap comes from plantain peels originally. The peel of the plantain is dried to specific moisture content, and roasted in order to achieve a particular colour, texture, and smell. The basic ingredients used in black soap are: shea butter, palm oil, coconut oil, roasted plantain skins, and roasted cocoa pods; while other additives like scents and other oils are optional. The darker soaps tend to have more of the roasted plantain skin in the ingredients, as the oxidation from the plantains makes the soap bar darker (Alao, Alabi, Oni & Famakinwa, 2017). African black soap has numerous benefits and importance (Mongadi, et al., 2012). It is used in the treatment of many infectious diseases caused by microorganisms. It is known for improving or eliminating uneven skin tone, razor bumps caused by in-grown hairs and skin rashes. Nura & Debebe (2019) acknowledged that, the attribute of the soap includes gentleness on skin, rich lather, protection against skin disorder (including rashes, eczemas and scabies), treatment of skin infections, protection of even skin toning and smoothness of the skin. According to Fasola, et al. (2020), in addition to the fact that it is full of vitamins and emollients, perfect for cleansing deeply, it exfoliates gently and it's a great choice for those prone to skin rashes. Other economic importance of black soap ranges from its ability to create jobs for rural women (Oyekanmi et al., 2014).

Unfortunately, black soap industry has performed poorly over the years, and has not received the desired attention needed for its growth and general acceptance in Abia state. A study

by Alo, et al. (2012) indicates that the industry is constrained by factors ranging from inadequate raw materials for production, lack of capital, and water, weather, land tenure system, among others. The authors add that, black soap production is a profitable enterprise among rural dwellers, yet there is dearth of information on the level of women's involvement in this enterprise, especially in Southeastern Nigeria. Moreover, few people have reported that it causes skin irritation due to the use of unrefined materials, which are believed to contain a high degree of impurities in the production process of the soap. Likewise, the selling price of the product does not commensurate with the effort the producers put in during the course of production, which in turn discourages many people from venturing into the business (Alao, et al., 2017).

It is therefore necessary to evolve innovations that could enhance the production of black soap. Innovation advances the technological capabilities of industrial sectors and prompts the development of new skills (FAO, 2022). Thus, Aworinde & Akintoye (2019) insist that the lack of infrastructural access by business owners constitutes a major impediment to the growth and development of the black soap industry. In Nigeria, several factors make business environment unfriendly and unsafe for investment. by Obasan (2014) identified inflationary trend, competition, and infrastructural facilities accessibility as problems that militate against the growth of businesses. There are also marketing related problems, financial and product quality issues. The lack of modern technology to enhance production in large scale is also another problem. Thus, Adewusi (2020) contends that, it is most appalling that the black soap enterprise has been hijacked by industrialists who exploit these resources to produce a more refined packaged black soap for the consumption of Nigerians. Incorporating such technology in the traditional setting will therefore open up the industry and further boost its economic potential. Regrettably, even though the significance of this venture for socio-economic development is enormous, it does not thrive in Abia state as expected, despite the huge markets and thriving industries in the state for which the producers can take advantage of. It therefore becomes necessary to examine the factors responsible for the dwindling growth of the black soap enterprise in Abia State.

Objectives of the study

The general objective of this study was to examine the factors affecting growth of black soap business in Abia state. Specifically, the study determined:

1. human skills-related factors hindering the growth of black soap.
2. economic factors limiting the growth of black soap business.
3. marketing factors affecting black soap business in Abia state.

Research Questions

1. What are the human skills-related factors affecting the growth of black soap?
2. What are the economic factors limiting the growth of black soap business?
3. What the marketing factors affecting black soap business in Abia state?

Methodology

***Research Design*:** This paper adopted the survey method.

***Area of Study*:** This study took place in Abia State of Nigeria. Abia State is a state in the south eastern part of Nigeria. The Capital is Umuahia and the major commercial city is Aba, formally a British colonial government outpost. The state was created in 1991 from part of Imo State and its citizens are predominantly Igbo people (95% of the population. It has a population of 2,845,380 (2006 census figures) and a population density of 578 people per square kilometer (Ahaiwe and Agodi, 2015).

***Population for the Study*:** The study population was made up of women who are into production and sale of black soap, in the five local government areas (LGAs) that make up Abia North Senatorial District, of Abia state. Abia state was chosen designated for this study because it has major markets and industrial sectors and has the capacity to boost the black soap business through the production of improved branded varieties.

***Sample for the Study*:** Multi stage sampling technique was used. In the first stage, simple random sampling was used to select two out of the five local governments (LGA) in Abia North. From the two LGAs, two communities each were selected, Snowball technique was used to obtain a sample of 120 women, made up of 30 women each from the four communities. These were women engaged in the production and sale of black soap (*ncha-nkota*) in the area. Snowball sampling also known as chain-referral is a sampling technique in which research participants are asked to assist researchers in identifying other potential subjects.

***Instrument of Data Collection*:** Questionnaire was used to collect information from respondents. The instrument was made up of 16-items developed through the literature based on the specific objectives. The scale of the questionnaire was a 5-point Likert scale ranging from strongly agree (5) to strongly disagree (1). It was validated by three experts in Home Economics. Test-retest technique was used to establish the reliability test using Pearson's Correlation Coefficient which gave a correlation coefficient of 0.90.

***Data Collection Techniques*:** One hundred and twenty copies of the instrument were distributed by hand to the respondents. Those who could not read and write had it read and interpreted to them in vernacular. All the 120 copies of the questionnaires were retrieved from the participants. This represents 100 percent return.

***Data Analysis Techniques*:** The data were analyzed quantitatively using descriptive statistical frequency counts, percentages, and means. Based on the 5-point scale of the instrument, 3.0 was taken as cut-off point for decision making. Any variable (factor) with mean ($\bar{X}$) response of 3.0 and above ($\bar{X} \geq 3.0$) was regarded as an "agreed upon factor", while any with a mean response of less than 3.0 ($\bar{X} \leq 3.0$) was regarded as "non-agreed upon factor".

Results

***Demographic information on respondents*:** Data analysis indicates a higher percentage of those with primary educational qualification (40%) and no education at all (34.2%), while 3.3% had tertiary qualifications. This calls for upgrade in the black soap industry. Also, a greater number of the women are married; hence, black soap contributes to the livelihood of families. The data also shows that majority (45%) of the women were above 60 years; only 4.2% were

within the younger age bracket of 30 – 39; however, this demonstrates that younger women are now venturing into the business, unlike when it was exclusively run by the elderly.

Table 1: Mean Responses on Skill Acquisition Factors Affecting Black Soap Production that Influence African Black Soap Enterprise in Abia North LGA

S/N	Skill-acquisition Factors Affecting Black Soap Production	$\bar{X}$	Remark
1	Poor value addition affects the production output of black soap (addition of honey, preservatives, aloevera, fragrance, cam wood, lime, etc)	3.6	AU
2	Black soap processing involves intensive Labour	4.0	AU
3	Black soap production exposes women to poor health condition	3.7	AU
4	None availability of modern equipment affects mass production of black soap	3.8	AU
5	There is low level of skill acquisition in the sector	3.4	AU
6	The tedious process of production makes it an unattractive venture for youths	3.5	AU
7	Poor educational level of producers affects the finished product	3.9	AU
8	Lack of extension services affects scale of production	3.9	AU

Total number of respondents = 120; Grand Mean = 3.7; AU = Agreed upon factor.

Table 1 shows that all the eight items, each has a mean of 3.0 above ($\bar{X} \geq 3.0$) therefore they are all skill-acquisition factors affects black soap production in Abia state. Factors with the highest mean is "black soap processing involves intensive Labour" ($\bar{X}$ = 4.0), while the second set of high mean score are "poor educational level of producers affects the finished product" ($\bar{X}$ = 3.9) and "lack of extension services affects scale of production" ($\bar{X}$ = 3.9). These might be the most serious factors. The factors with lower mean scores are "there is low level of skill acquisition in the sector" ($\bar{X}$ = 3.4) and "the tedious process of production makes it an unattractive venture for youths" ($\bar{X}$ = 3.5). These might be the least serious factors.

Table 2: Mean Responses on Economic factors that Limit African Black Soap Enterprise in Abia North LGA

S/N	Economic factors that Limit African Black Soap Enterprise	$\bar{X}$	Remark
1	High cost of raw materials	3.8	AUF
2	High cost of hired labour	3.7	AUF
3	Difficulty in accessing firewood, ash and water	3.9	AUF
4	Poor access roads affect the buying of cocoa pods for production	3.5	AUF
5	Poor knowledge of the soap's economic potential	3.5	AUF
6	Wrong perception of uses of black soap	3.7	AUF
7	Adulteration of black soap ingredients	3.1	AUF
8	Majority of black soap producers get funding from internal source	3.5	AUF
9	Most black soap producers depend on suppliers and customers' credit as business capital	3.8	AUF
10	Lack of collateral to access bank loans	3.9	AUF
11	Lack of access to finance is a major constraint faced by the soap producers	3.9	AUF

Total number of respondents = 345; Grand Mean = 3.6; AUF = Agreed upon factors

Table 2 shows all the 11 items have mean score of more than 3.0. This means that they are all 11 economic factors that limit the African black soap enterprise in Abia North LGA. The factors with the highest means scores are "difficulty in accessing firewood, ash and water affects production rat" ($\bar{X}$ = 3.9), "lack of collateral to access bank loans affects the growth of the industry" ($\bar{X}$ = 3.9) and "access to finance is a major constraint faced by the soap producers" ($\bar{X}$ = 3.9).

These could be the most serious factors. Those with the lowest mean scores are "adulteration of black soap ingredients affects the level of usage" ($\bar{X}$ = 3.1) and "Poor access roads affect the buying of cocoa pods for production" ($\bar{X}$ = 3.5), "poor knowledge of the soap's economic potential affects its growth" ($\bar{X}$ = 3.5) and "poor access roads affect the buying of cocoa pods for production" ($\bar{X}$ = 3.5).

Table 3: Mean Responses on Market Factors that Influence African Black Soap Enterprise in Abia North LGA

S/N	Market Factors Influencing African Black Soap Enterprise	$\bar{X}$	Remark
1	Lack of advertisement of black soap	3.8	AUF
2	Low price of soap	3.7	AUF
3	Poor packaging	3.9	AUF
4	Poor awareness of the richness of soap	3.5	AUF
5	Lack of branding/promotion	3.7	AUF
6	Presence of alternatives	3.4	AUF
7	Declining market for the product	2.9	NAUF

Total number of respondents = 345; Grand Mean = 3.5; AUP= Agreed upon factor; NAUF = Not agreed upon factor

Table 3 shows that six out of the sevn factors obtained mean scores of 3.0 and above. This implies that there are six factors that influence the African black soap enterprise. The highest scoring factors are "poor packaging" ($\bar{X}$ = 3.9) and "lack of advertisement of black soap" ($\bar{X}$ = 3.8). This could be the highest scoring factors. The factor with the low score is "presence of alternatives" ($\bar{X}$ = 3.4).

Discussion of Findings

Results in Table 1 shows that, the output in the black soap sector is affected by poor value addition mechanisms ($\bar{X}$ = 3.6). While traditional recipes for black soap are free from additives like dyes, fragrances, and others, scientific innovations have led to the modification of the soap through the addition of different naturally occurring beauty enhancing organic compounds like aleovera, camwood, lime, honey and shea butter. Moreover, chemical analyses of the modified black-soap samples revealed that the addition of these naturally beautifying compounds to the soap has not denatured it chemically, but rather it has aided its antibacterial activities (Ikotun et al., 2018). The result aligns with the finding by Alabi & Makinde (2022) which revealed that black soap producers were rarely involved in value addition activities, implying that respondents might be ignorant of the need to add value to their products or they lack the

technicalities of doing it. This might also be the reason why the enterprise has remained undeveloped even though it has been in existence long before the advent of modern soap. Again, this study found that the production process of black soap involves intensive labour ($\overline{X}$ = 4.0) which inadvertently affects the health ($\overline{X}$ = 3.7) of the women. Alo, et al (2012), affirm that the processing of black soap can be dangerous to the producer at different phases of manufacturing as a result of the alkaline content. However, the availability of modern technology ($\overline{X}$ = 3.8) to help with the tediousness of stirring black soap to get a smooth solution, drying of cocoa pods, and plantain bunch, soaking and sieving of ash, burning of materials, heating of oil and scooping of black soap into containers, among other activities, will go a long way to improve the production of black soap in Abia state. Equally, the findings reveal that majority of those involved in black soap business have very low level of education, or none at all ($\overline{X}$ = 3.9). Similar results have been observed in previous studies as Adewusi & Akanle (2020) reported in their study, that the majority of black soap sellers (about 75%) had no formal education. Nevertheless, Alo, et al (2012) whose findings also revealed that 61.1% of respondents had no formal education is of the opinion that experience gotten from years of practice can close this gap, since experience can rub off positively on managerial capacity, technical knowhow and adoption of extension policies.

Regrettably, the lack of extension services ($\overline{X}$ = 3.9) for black soap producers in Abia state reduces the level of productivity in the business as majority of the women explained that they were not aware of such services. This validates the position of Achem & Akangbe (2011) that the low level of literacy has implications for extension as education facilitates change and is directly linked to the level of information dissemination, adoption, transfer and application of agricultural innovations. Correspondingly, the unattractiveness of the business to the younger generation ($\overline{X}$ = 3.5) derails the level of knowledge transfer in the field ($\overline{X}$ = 3.4). This finding is further buttressed by the report of Adewusi & Akanle (2020) in their study whereby, the majority of black soap producers were against the idea of engaging apprentices or employees in their businesses because they were perceived to lack sufficient knowledge, due to the fact that they were generally somewhat youthful. The authors added that, when asked if they would consider starting a black soap business, most consumers perceived it as being in contrast with the identity of urban millennial, with the view that black soap business is "crude" and did not fit in with their level of educational attainment and social status.

Table 2 identified economic factors affecting the growth of black soap enterprise in Abia state. The high cost of materials ($\overline{X}$ = 3.8), such as palm kernel, difficulty in accessing firewood, water, ash, cocoa pods (3.9), owing to transportation and cost, attracted high means. Similarly, a major constraint identified by black soap producers/marketers is the lack of access to funds ($\overline{X}$ = 3.9). Findings show that majority of those involved in the business depend on customers' credit as the business capital (3.8), in the same way as the inability to provide collateral to access bank loans ($\overline{X}$ = 3.9) further impinge on the growth of the business. This is in line with the conclusion drawn by Oluwalana, Adekunle, Aduradola,

Okojie, Ashaolu & Sanusi (2016) that, scarcity of funds to expand their businesses, especially lack of access to bank credit, constituted a challenge to black soap producers. This makes it difficult for the women to purchase and use necessary inputs to maximize profit. Hence, most of them use personal funds and sometimes financial support from friends and relations, cooperatives and Non-Governmental Organizations (NGOs). The women often do not meet the stringent conditions of collateral and high interest rates charged by the banks.

Proceeding, findings in table 3 indicates that absence of advertisement for black soap ($\overline{X}$ = 3.8), low selling price ($\overline{X}$ = 3.7), poor packaging ($\overline{X}$ = 3.9), lack of awareness about the richness of black soap (3.5), as well as the presence of other brands of soap; reduce the level of growth in the black soap enterprise. Accordingly, in the course of gathering data for this study, the researchers embarked on a visit to some of the local markets where black soap is sold, and observed that majority of the sellers wrap it in plain nylon and put out on display. When they offered to buy, it was sold to them wrapped in nylon; each wrap sold for One hundred naira (₦100). This highlights the lack of good packaging and further strengthens the wrong perception ($\overline{X}$ = 3.7) held by some members of the public that black soap is meant for use by nursing mothers, the elderly, and the sick. The finding is also consistent with the position of Kathy (2009) who asserts that, the potential for black soap production and utilization in Nigeria is huge however, the general belief that black soap is meant for poor people and the dark complexioned sets a drastic limitation. Alo, et al (2012), also affirmed that black soap is sold at very low and uncompetitive prices, thus serving as a discouragement to those engaged in its production.

Lastly, poor knowledge of black soap's economic potential ($\overline{X}$ = 3.5) as well as low awareness of its richness ($\overline{X}$ = 3.5) affect its growth, and are partly responsible for the declining market ($\overline{X}$ = 2.9). Comparatively, this means that while black soap business serves as means of employment to women in the Southwest region of the country where the business thrives, as well as in border countries like Ghana where it contributes to their GDP (Buchan, 2010), in Abia state, it cannot do the same owing to the poor level of patronage.

Conclusion

This study found that the black soap industry is constrained majorly by challenges ranging from human-skill related, economic and marketing factors, such as lack of access to fund, poor packaging, wrong perception, intensive labour, lack of modern processing equipment, access to raw materials, and others. These findings therefore call for measures to effectively harness the potentials of the black soap (*ncha-nkota*) industry in order to transform the economic status of women, and Abia state in general.

Recommendations

Based on the findings the following recommendations are made:

(1) Black soap producers and sellers should create massive awareness of the product through the mass media and other forms of traditional communication systems available to them.

(2) Financial institutions should make soft loans available and affordable to the women involved in black soap enterprise.

(3) Relevant bodies should develop appropriate technologies that could facilitate the production of African black soap.

References

Abdulahi, G. F., Ghani, A. N. & Dalhatu, S. (2015). Rural Women's Economic Contribution towards Community Development in Rural communities of Kano State, Nigeria. *Mediterranean Journal of Social Sciences*, 6(6); 250-259.

Alabi, D. L. & Makinde, D. F. (2022). Involvement of rural households along Enterprise value chain of the indigenous black-Soap from ash-derived alkali. *Ghana J. Sci*. 63(2); 43-56.

Achem, B. A. & Akangbe, J. A. (2011). Assessment of Constraints to cassava Value-Added Enterprises in Kwara State, Nigeria. *Journal of Agricultural Extension*, 15 (1); 124-134.

Adebowale, B. A. (2014). Women Involvement in Hand-Made Pottery and Marketing Strategies. *Journal of Economic and Sustainable Development*, 5(6); 150-159

Adewusi, A. O. & Akanle, O. (2020). Ose Dúdú: Exploring the Benefits of Yoruba Indigenous Black Soap in Southwest, Nigeria. *The International Indigenous Policy Journal*, 11(1); 1-20

Ahaiwe, E. O. & Agodi, J. E. (2015). Effect of Psychographic Variables on Consumers' Preference for Cosmetics in Abia state, Nigeria. *European Journal of Business and Social Sciences,* 4(5); 88-96.

Alao, O. T., Alabi, D. L., Oni, T. S. & Famakinwa, M. (2017). Assessment of Women's Involvement in Black Soap Enterprise in Osun State, Nigeria. *Tropical Agricultural Research and Extension*, 20(3 & 4); 115 – 123.

Alo, R. B., Achem, B. A., Mohammed, B. T. & Abdulquadir, A. F. (2012). Profitability Analysis of Black Soap Production in Ekiti State, Nigeria. *Continental Journal of Agricultural Economics*, 6 (3); 8 – 14.

Aworinde, O. & Akintoye, I. (2019). Institutions, infrastructure and economic growth in Nigeria. *Acta Universitatis Danubius. Economica,* 15(3); 1-12.

Bella, O. (2011). African Black Soap. Retrieved from: http//www.bellaonline.com/article/art26546.asp.

Erinoso, S. M., Fawibe, O. O., Oyelakin, A. S., Ajiboye, A. A., & Agboola, D. A. (2016). Herbal Recipes used for the Traditional Management of Infantile Dermatitis in Odeda, Southwestern Nigeria. *African Journal of Traditional, Complementary and Alternative Medicines*, 13 (3); 33-43.

Fasola,T. R., Aponmade, A. E. & Aponjolosun, B. S. (2020). African Black Liquid Soap: Antifungal and Physicochemical Properties. *Agriculture Environnement et Sciences de L'ingénieur*, 18(2); 98 - 114

Foraminifera Market Research Limited, (2018). Black Soap Production in Nigeria; the Feasibility Report. *Foraminifera Market Research Limited.* foramfera.com/marketresearchreports/manufacturing-market-research-reports/black-soap-production-in-nigeria-the-feasibility-report/

Food and Agricultural Organization, (2022). Sustainable Development Goals: Build resilient infrastructure, promote sustainable industrialization and foster innovation. https://www.fao.org/sustainable-development-goals/goals/goal-9/en/

Handaragama, S., Rathnayake, H. & Uluwaduge, P. (2013). Women's Economic Participation in Rural Development. *International Journal of Education and Research,* 1(8).

Ikpoh, I. S., Lennox, J. A., Agbo, B. E., Udoekong, N. S., Ekpo, I. A., & Iyam, S. O. (2012). Comparative Studies on the Effect of Locally made Black Soap and Conventional Medicated Soaps on Isolated Human Skin Microflora. *Journal of Microbiological Biotechnology*, 2 (4); 533-537.

Lin, A., Nabatian, A., & Halverstam, C. P. (2017). Discovering Black Soap: A Survey on the Attitudes and Practices of

Black Soap Users. *The Journal of Clinical and Aesthetic Dermatology,* 10(7); 18-22.

Livingstone, J. & Ruhindi, E. (2011). Economic Empowerment for Pastoralist Women: A Comparative Look at Program Experience in Uganda, Somaliland and Sudan. *International Conference on Global Land Grabbing*

Mongadi, A. G., IMONIKHE, M. A., & OYINBO, K. (2012). Analysis of the antibacterial activity of African black soap on some selected pathogens. *Arpn Journal of Science and Technology,* 2, 359-364.

Nweke, F. N. (2011). *Soap/Detergent, Toothbrush and Toothpaste Making. Practicum in Entrepreneurship & Intrapreneurship (Ed.).* Abakaliki: Entrepreneurship Development Centre, Ebonyi State University.

Nura, D. G. & Debebe, S. (2019). Income Impact of Pastoralist Women Participation in Aloe Vera Soap Production in Southern Ethiopia. *Review of Agricultural and Applied Economics* 22(2); 33-45

Obasan, K. A. (2014). The Impact of Business Environment on the Survival of Small Scale Businesses in Nigeria. *Int. J. Manag. Bus. Res.,* 4 (3); 165-170

Oluwalana, E. O. A., Adekunle, M. F., Aduradola, A. M., Okojie, L. O., Ashaolu, O. F and Sanusi, R. A. (2016). Determinants of Herbal Soap Small Enterprises and Market-led Development in South West, Nigeria. *Journal of Humanities, Social Sciences and Creative Arts*, 11 (1 & 2); 76 – 87

Oyekanmi A., Adebayo, O., & Farombi, A. (2014). Physiochemical properties of African black soap, and its comparison with industrial black soap. *American Journal of Chemistry,* 4(1); 35-37

Raji, A. O. Y., Olumoh, A. O. & Abejide, S. T. (2013). Women and Their Role in the Economy of Pre-Colonial Ilorin, Northern Nigeria. *Arabian Journal of Business and Management Review*, 3(5); 43-56.

Summers, G. (2016). African Black Soap. A Recipe Passes Down for Generations. Retrieved from: hhtp://www.liveabout.com/african-black-soap-244-627

Ukwendu, J. E. (2019). African black soap. Bella Online. Retrieved from: https://www.bellaonline.com/articles/art26846.asp