Exploring the Problems the Gari Processing Industry Encounter in the West Gonja Municipality, Ghana

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Abstract

The gari enterprise is a catalyst for economic progress and a route out of poverty as it is a major staple food for many Ghanaians. Despite the problems confronting gari enterprises, it has attracted less attention. As such, this study aims to explore the problems facing gari enterprises in the West Gonja Municipality of Ghana. The case study design was adopted for the study. The sample size comprised 30 participants who were engaged in gari enterprises. Interview and observation guides were used to collect data, whereas thematic analysis and pairwise ranking were used to analyse the data. The results showed that gari enterprises faced internal problems covering, technology adoption, and marketing problems, while external problems encountered included funding and poor infrastructure. However, production problems emerged as the most predominant. In general, both internal and external problems undoubtedly influenced the operation of the gari enterprise. To overcome these problems, gari enterprises should acquire and use modern equipment for production, develop their human capital, and secure affordable loans.

Keywords: Gari, Enterprise, Problem, Poverty, Small and Medium Enterprises, Ghana.

Introduction

With poverty increasingly becoming a global problem (Leite, 2018), several pathways are explored to combat it. Small and medium enterprises (SMEs) development has been identified as one of the remedies for addressing poverty, as they account for the bulk of firms in developing countries (Dhore, 2015) and act as the development engine (Agwu & Emeti, 2014; Taunk & Kumar, 2013). The gari processing sector appears to be a significant element of SMEs in Sub-Saharan Africa (Buwah, 2012; Opoku-Mensah et al., 2014; Ozigbo et al., 2020), contributing to the staple food mix, job creation, and gross domestic product of these countries (Abor & Quartey, 2010; Adam, 2015; Scheer, 2010; Scarborough & Cornwall, 2014; Taunk & Kumar, 2013). The gari industry may serve as a pathway out of poverty (Funke et al., 2012; Opoku-Mensah et al., 2014) because it is an important staple food for most of the population in West Africa (Atuna et al., 2021).

Because of the great potential of the gari industry in Sub-Saharan African countries (e.g., Nigeria, Sierra Leone, Togo, Liberia, Benin, Côte d'Ivoire, and Ghana), both governments and non-governmental organizations (NGOs) have provided several interventions to support the production of cassava (Manihot esculenta Crantz) and its processing into gari for the domestic and export markets (Addy et al., 2004; Eze, 2010). According to Asogwa et al. (2006), the Nigerian federal government has supported cassava production and upgraded technology in cassava processing. Similarly, in Damongo, the District capital of West Gonja Municipality of Ghana, the Rural Enterprises Project taught local inhabitants how to improve cassava processing (i.e., Gari fortified with soya beans), which adds value to the indigenous gari (Buwah, 2012). NGOs such as the Opportunity Industrialization Centre International (OICI) and the Adventist Development and Relief Agency (ADRA) have also helped to promote the processing of cassava into gari by providing entrepreneurs with training in processing, marketing, and storage, as well as providing them with processing equipment (Mensah, 2007; Tabor et al., 2002).

Despite these efforts, the benefits of gari production may be elusive, as most of such enterprises tend to shut down after a few years of operation (Buwah, 2012; Cant, 2012). Several studies (Buwah, 2012; Eze, 2010; Ijigbade et al., 2014; Opoku-Mensah et al., 2014) on the gari industry have been conducted, however, they have primarily focused on production, quality improvement, waste conversion, poverty reduction, and profitability, with little attention paid to issues of problems encountered. Only a few studies, such as Addy et al. (2004) and Adenugba and John (2014), focused on gari enterprise problems, indicating a limited investigation of the issue. For Nimoh et al.'s

(2020) study, it had a dual focus in that it looked at financial performance and problems with gari production in Kumasi. However, this study was skewed towards financial performance with minute attention given to the problems encountered. Likewise, examining the problems associated with gari enterprises is imperative because they can thwart its poverty reduction ability. As such, this article explores the problems that gari enterprises encounter.

Literature Review

Theoretical Framework and Conceptual Overview

The theoretical basis for this study is on the life cycle, human capital, and innovation diffusion theories. The enterprise is compared to a live organism in the life cycle theory, which passes through birth, growth, and death (Mao, 2009). Similarly, the business would go through the stages of starting up, growing, ageing, and dying (Brzeziski & Stefaczyk, 2013; Mao, 2009; Mashimba & Kühl, 2014). This shows how SMEs development can be divided into three growth stages: growth, regeneration/maturity, and ageing/closure (Mao, 2009). To begin, the growth stage includes the stages of pregnancy, infanthood, and step-learning. The youth and prime stages are included in the regeneration and mature stages. Finally, the stability stage, noble stage, early bureaucracy stage, bureaucracy stage, and death stage are all included in the ageing and death stage (Mao, 2009). This theory is relevant to the study because it provides the lens to explain the problems that gari processing businesses face during their early phases of development. According to the life cycle theory, an enterprise passes through several stages, including birth, growth, and death. This means that the gari companies may face several issues (see the following subsection on "Gari SMEs' Problems") that will impede their operations.

On the other hand, the human capital theory claims that education and training are critical to increasing an individual's productivity (Kwon, 2009; Royce, 2009). According to Ogujiuba et al. (2011), investment in education and training varies depending on predicted gains. For Ogujiuba et al. (2011) and Davis and Sanchez-Martinez (2014), youth are more willing than the elderly to invest in education and training because they expect larger returns. Regarding Royce (2009), income inequalities are linked to differences in productivity, influenced by training and education. This idea can help to explain how human capital disparities between people processing gari can thwart or facilitate the enterprise operations with respect to production, marketing and technology adoption.

In relation to the innovation diffusion theory, it explains how a new idea spreads through a social system (Medlin, 2001; Rogers, 2003; Sherry & Gibson, 2002). LaMorte (2019) argues that the acceptance of a novel product, concept, or behaviour (i.e., innovation) does not happen instantly within the same social system but rather is a process in which some people adopt the innovation more quickly than others are. According to the theory, potential adopters weigh relative advantage, compatibility, complexity, triability, and observability while deciding whether to adopt new technology (Rogers, 2003). The mass media (i.e., newspaper, TV, or radio) and interpersonal communication, according to Rogers (2003), are two routes for communicating an innovation. There are five adopters in relation to the theory: innovators, early adopters, early majority, late majority, and laggards (Rogers, 2003). However, the majority of the population gravitates toward the middle classifications (i.e., early majority and late majority) regarding innovation adoption (LaMorte, 2019). In communication, social work, public health, marketing, agriculture, and criminal justice, this has been used to explain innovation adoption behaviour (LaMorte, 2019). This theory can be beneficial in describing the problems SMEs in the gari enterprise face while adopting a new technology to improve their production capacity.

SMEs are defined in a variety of ways. According to the European Commission, SMEs are divided into micro-enterprises, small businesses, and medium businesses. Micro-enterprises have fewer than nine employees; small businesses have 10 to 99 employees; and medium businesses have 100 to 499 people (Kayanula & Quartey, 2000). In the same way, the Ghana Statistical Service (GSS) classifies businesses with fewer than ten employees as small businesses, while those with more than ten employees are classified as medium and big businesses (Kayanula & Quartey, 2000). On the other hand, Nwokoye (1988) defines SMEs as any enterprise employing between five and 100 workers with an annual turnover of about US$972.64. The definitions suggest that the number of employees and turnover are crucial elements used in defining SMEs. The operational definition for SMEs used in this work is that provided by GSS. Gari is a crispy and gritty cassava product (James et al., 2012). Buwah (2012, p. 8) describes gari as "a creamy-white, coarse flour with fermented flavour and a slightly sour taste made from fermented, gelatinized fresh cassava tubers." Cassava is crushed into a mash, fermented, sieved into grits, and fried to obtain gari (James et al., 2012). Gari processing is not without issues, as SMEs have demonstrated (Addy et al., 2004).

Gari SMEs' Problems

SMEs encounter various internal and external problems that impede their ability to expand (Osamwonyi, 2009; Onukwuli et al., 2014). Marketing issues such as pricing, slackness in demand, quality of goods, marketing channel, and competition are examples of internal challenges (Addy et al., 2004; Dhiman & Rani, 2011). According to Addy et al. (2004), the price of SMEs' products is lower in Ghana, despite their high processing costs. This shows that in this situation, the entrepreneurs are most likely to lose money. They say that transportation costs were among the highest, which drives up gari production prices. Ijigbade et al. (2014) also found that one of the significant challenges gari processors face in Ondo State, Nigeria, is price fluctuation, ranked as the second most critical concern, followed by a lack of storage facilities as the third most crucial problem. For Njukwe et al. (2014), gari processors in Cameroon earn little money from their business due to poor product quality and packaging.

The ability of SMEs to operate effectively may be harmed by labour-related problems (Agwu & Emeti, 2014; Nimoh et al., 2020; Pagli, 2018). For example, Agwu and Emeti (2014) pointed out that a major problem in the performance of SMEs in Nigeria's Port-Harcourt City is a lack of managerial skills. Earlier, Rogers (2002) stated that a lack of competent workers has resulted in inefficiencies in general business administration, poor record keeping, a lack of critical and required skills in manufacturing and misapplication of cash, all of which limit the potential of businesses to develop. Gari businesses in Kumasi, according to Nimoh et al. (2020), have personnel that are mainly uneducated and hence unable to register their transactions. Ijigbade et al. (2014) had earlier reported that a lack of labour was the least listed difficulty faced by gari processors in Ondo State. However, Pagli's (2018) study in Nigeria showed that the gari sector encountered problems due to a lack of technical skill in managing modern gari processing facilities.

Furthermore, production-related restrictions may limit SMEs' capacity to expand. As a result, a shortage of raw materials has emerged as a production issue limiting SMEs' expansion (Addy et al., 2004; Adam, 2015; Dhore, 2015). Concerning raw material scarcity, Nimoh et al. (2020) claimed that cassava is challenging to come by in Kumasi due to its seasonality and high cost. Similarly, Adam (2015) earlier on discovered that women working in gari processing in the West Gonja Municipality's Busunu and Larabanga observed a shortage of cassava in their activities. According to Ijigbade et al. (2014), some SMEs lack storage facilities for their raw materials and finished goods, which affects their productivity. Non-enforcement of good manufacturing standards, according to Addy et al. (2004), contributes to the creation of low-quality

gari. Moreover, Buwah (2012) reports that women in West Gonja District use the traditional way to make gari from cassava. Simple equipment is used in these approaches, resulting in limited production. However, Adam (2015) discovered that while the machinery was an issue in the rural regions of the West Gonja District where gari processing takes place, the situation was different in the urban areas, where the machinery was available. Pagli (2018) reported that SMEs engaged in gari processing in Nigeria complained about high cassava costs and a lack of modern equipment and storage facilities. With respect to Adabie (2015), gari processors in Ghana's Awutu Senya, Central Tongu, and Ayensuano Districts faced health risks because of a lack of protective equipment. Knife cuts, smoke inhalation, heat stress, bug bites, eye irritation, and musculoskeletal diseases were also discovered by Okareh et al. (2015) as problems gari SMEs encounter in Ibadan, Nigeria.

Mustafa and Yaakub (2018) claimed that for businesses to preserve their market position and increase their performance, they must innovate. However, this appears elusive as businesses struggle to adopt new technologies. For example, Ozigbo et al. (2020) observed that the limited production of gari in Nigeria was due to the manual process used in peeling and frying gari, which was due to the tardy adoption of contemporary techniques of manufacturing. Lack of cash, information exchange, experienced individuals, and risk were some of the problems cited by Cora and Tantău (2013) as reasons for SMEs' reluctance to accept innovation. Similarly, Asharfi and Murtaza (2008), Arendt (2008), and Mustafa and Yaakub (2018) have said that SMEs are hesitant to use technology due to a lack of understanding, limited experienced employees, implementation, and potential benefits. Similarly, a company's seasoned employees may be accustomed to a particular system, making it difficult to welcome change (Golding et al., 2008). Furthermore, according to Chuang et al. (2009), new business owners are more likely compared to older business owners to take a risk and try an innovation because the older ones are entrenched in the traditional methods of doing things that they are comfortable with.

External problems are those that are beyond the industrialists' control (Mustafa & Yaakub, 2018). Government policies hampered small businesses, particularly an inappropriate tax structure and many discriminatory legal laws (Bartlett & Bukvi, 2001). Inconsistencies in policies and strict regulatory requirements, according to Osamwonyi (2009), impede the expansion of businesses. Multiple taxes, for example, was one of the most significant issues affecting SMEs in Nigeria's Port-Harcourt City (Agwu & Emeti, 2014). Pagli (2018) for instance stated that the government does not provide appropriate incentives for establishing gari-processing industries in Ugbene, Abakpa, Enugu, Nigeria. Moreover, the nature of a country's infrastructure (roads,

power, and water) may tend to stifle the expansion of business operations (Agwu & Emeti, 2014; Taunk & Kumar, 2013; Onukwuli et al., 2014). Poor transportation networks result in high transportation costs, reflected in price increases for raw materials and finished goods (Dhiman & Rani, 2011; Chhabra, 2013). In the view of Chhabra (2013), SMEs in India faced electricity scarcity and inconsistent supply, forcing them to use manual labour in their operations, which is significantly more expensive, and production suffers due to frequent power outages, while Ijigbade et al. (2014) found that gari producers in Nigeria considered high transportation costs as a problem.

Several studies (Hisrich & Peters, 2002; Osotimehin et al., 2012) show that SMEs' potential to grow is hampered by a lack of financial resources. Gari producers, for example, have a lack of access to cash or loans, according to Ijigbade et al. (2014). Furthermore, due to high-interest rates, agro-based enterprises in Patiala District cannot obtain money from a financial institution (Dhiman & Rani, 2011). Others, such as Agwu and Emeti (2014) and Onukwuli et al. (2014), have linked SMEs' difficulty to acquire capital to weak accounting records. Figure 1 depicts the conceptual framework based on the studied literature. It implies that internal and/or external problems hamper gari enterprise's operations. As a result, the prevalence of these issues tend to impede gari firms' ability to grow and enhance the living standards of individuals who work for them.

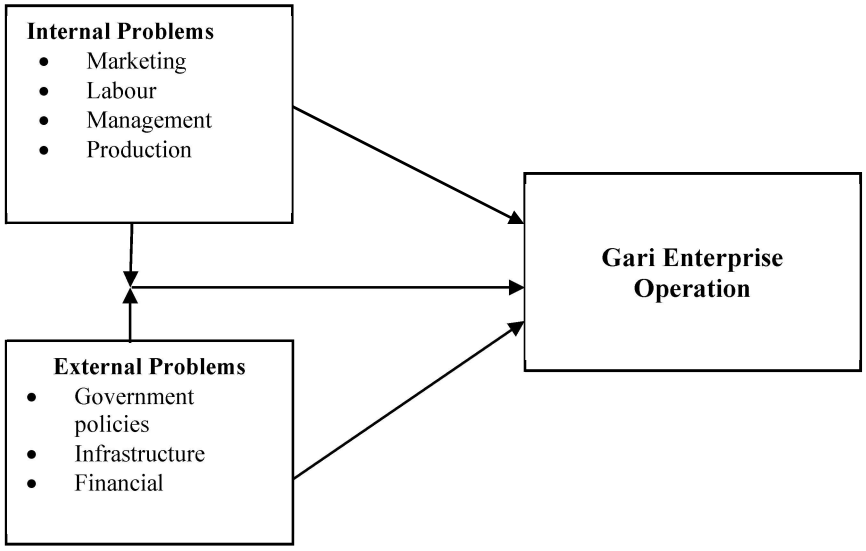

Figure 1: Problems Affecting Gari Enterprises
Source: Authors' Construct (2020)

Methodology

Study Setting

The West Gonja Municipal Assembly is headquartered at Damongo in Ghana's Savannah Region (West Gonja District Composite Budget, 2014). It is bounded on the south by the Central Gonja District, on the west by the Bole and Sawla-Tuna-Kalba Districts, on the north by the Wa East District, and on the east by the North Gonja District (Figure 2). Due to its position, when gari is processed, it can be sold in the neighbouring districts. The West Gonja Municipality has a population of 63,449, comprising 31,179 females and the rest being males (GSS, 2021). Additionally, the population of the urban-rural division is 39,150 and 24,299 correspondingly (GSS, 2021). The majority of roads in the area are feeder roads, frequently flooded and rendered impassable during the rainy season (West Gonja District Composite Budget, 2014).

Figure 2: Map of West Gonja Municipality
Source: Adopted from GSS (2014, p. 2)

The area receives variable rainfall from late April to late October, with an annual average of 1,100mm (West Gonja District Composite Budget, 2014). This circumstance, however, benefits cassava production (West Gonja District Assembly, 2011; GSS, 2014). No wonder agriculture is the primary occupation, employing over 60% of

the labour force in the Municipality, while other businesses such as gari processing employ the remainder (GSS, 2003, 2014; West Gonja District Assembly, 2011), with women dominating the workforce (Adam, 2015). Gari is a significant component of the food produced in the West Gonja Municipality (Adam, 2015; Buwah, 2012). According to Adam (2015), around 37% of persons in the West Gonja Municipality work in gari processing at Busunu, 27% at Larabanga, and 25% at Kojo-Kuraa. As a result, this sector employs a sizable number of people in the West Gonja Municipality. Since the Municipality has a poverty rate of between 40% and 50% (GSS, 2015) the gari enterprise could provide a pathway out of poverty.

Research Design

The study applied a qualitative research approach, which entails collecting data from participants and/or documents in the form of texts, recordings, and observations to address a research issue (Neuman, 2011). The qualitative approach was appropriate since it allowed for an in-depth examination of issues, which aided in comprehending the issues surrounding gari enterprises. As a result, the case study design was used as the study's strategy of inquiry. The case study is primarily a qualitative research method (Neuman, 2011; Sarantakos, 2005). An individual, a group, a community, or a geographic area may be considered a case (Kumar, 2011; Neuman, 2011). The atypical 'instance' picked serves as the foundation for a thorough and in-depth examination of the relevant aspect(s) (Cohen et al., 2007). Specifically, a single case study design was used. A single-case study is a set of procedures useful for demonstrating causal relations among clinical phenomena (Nock & Michel, 2007). The purpose of using a single-case study is that it is reasonable and allows for an in-depth understanding of the single phenomenon, which is unique using few participants (Heale & Twycross, 2018; Nock & Michel, 2007; Yin, 2014). The West Gonja Municipality was chosen as a case study due to its reputation for gari production. Specifically, Damongo, Laribanga, Busunu, and Achubunyo were the case locations.

Sample Size and Sampling Procedure

The study population included individuals involved in the gari industry (i.e., processors) in the West Gonja Municipality, specifically in Damongo, Laribanga, Busunu, and Achubunyo. The sample size was 30 individuals employed in the gari industry. The researchers' judgment determined the sample size of 30, as qualitative data collection does not necessitate a large sample size, but rather a small number of participants to permit in-depth interviews (Kumar, 2011). Purposive sampling was used to choose the sample. This strategy allowed the researchers to select individuals who possessed sufficient expertise in the gari enterprise in the West Gonja Municipality. The sample

was distributed as follows: Damongo had 15 participants, Laribanga had seven, Busunu had five, and Achubunyo had three.

Instruments for Data Collection, Data Collection, and Data Analysis

Data collection tools such as interview and observation guides were designed and employed. The interview guide was unstructured. It covered labour, management, production, financial, marketing, government regulations, and infrastructure issues. Oral permission was obtained from the research participants to record the interviews using a recorder. On the other side, the observation guide included information about the processing environment, processing equipment/machines, and packing. When necessary, photographs were taken during the observation to validate the participants' claims. The data collection period was from February 1-9, 2020. The researchers collected the data. The data were analysed using thematic analysis. After transcribing the data, a manual method using a deductive approach was employed to find codes and patterns within the data set. Table 1 presents the procedure for conducting thematic analysis. The identified themes served as the foundation for the investigation of the issues. Two main themes were recognized, namely internal and external issues, which served as the foundation for the discussion. Additionally, the pairwise ranking was used to denote the significant issues affecting the operations of gari enterprises. This was accomplished by asking participants to compile a list of issues they encountered, which they then ranked according to their importance. Member checks were done with some of the key informants from all the study locations to ensure accuracy, credibility and validity of results.

Table 1: Procedure for Thematic Analysis

Step	Description
1	Familiarizing yourself with the data
2	Generating initial codes
3	Searching for themes
4	Reviewing themes
5	Defining and naming themes
6	Producing the report/manuscript

Source: Adapted from Kigera and Varpioa (2020)

Results and Discussion

Small and medium-sized businesses (SMEs) have been hailed as a solution for poverty reduction (Abisuga-Oyekunle et al., 2019; Mamman et al., 2015). However, because of the unique problems certain SMEs encounter, this may not be the case. Accordingly, it is imperative to examine problems to the gari industry, as it is perceived as a pathway to leapfrog from poverty. Gari enterprise operations problems are tackled from two per-

spectives: internal and external.

Gari Industry's Internal Problems

Internal problems have emerged as one of the issues plaguing gari enterprises in the Savannah Region's West Gonja Municipality. Production, technological adoption, record keeping, and marketing were among the problems raised in the interviews. One of the characteristics of the gari industry's internal problems was production problems. Shortage of cassava, a bad environment where gari processing occurs, lack of machinery, limited storage space for cassava and gari, underutilization of production capacity, and accidents (i.e., cuts and burns) were some of the production related problems encountered according to the in-depth interviews with key informants and from the observation. For example, a key informant in Damongo (February 3, 2020) said:

> Hmm! Brother, when it comes to processing gari, I have many problems in my business. A scarcity of cassava and a lack of modern equipment was among the issues I encountered. This circumstance has always resulted in my ability being underutilized, and as a result, I am unable to generate profit from the firm.

Another key informant from Achubunyo (February 5, 2020) also stated:

> For me, the frying pan and sieve I use are obsolete, as such, they are hazardous since at times they result in me being burnt, having cuts on my fingers and palms. Due to the outdated equipment, I am unable to produce sufficient quantities of gari to meet the demand.

Furthermore, a key source from Busunu (February 9, 2020) remarked:

> I don't have adequate space built and designated to store cassava, process, and store the product. Due to the nature of the environment, the gari may become contaminated, posing a health risk. Aside from that, I have trouble procuring cassava because of the little money made from the business.

These quotations suggest that many production related problems exist which limit the smooth operation of the gari businesses. Observations were also made to figure out what was causing the production issues. The data gathered during the observation (Figures 3–6) demonstrated the usage of outdated equipment, a lack of cassava storage space, and a poor working environment.

Figure 3: Obsolete Frying Method of Gari at Achubunyo
Photo credit: Authors (2020)

Figure 4: Obsolete Sieving Method of Gari at Damongo
Photo credit: Authors (2020)

Figure 5: Obsolete Dewatering Method of Gari at Laribanga
Photo credit: Authors (2020)

Figure 6: Poor work environment at Busunu
Photo credit: Authors (2020)

This is premised on the background that there is now efficient equipment for grating, dewatering, sieving, and frying which the gari processors could deploy. The deployment of new equipment would be more cost-effective if SMEs came together to purchase equipment that everyone could use. This is critical because it ensures efficiency. These findings support those of Addy et al. (2004), Adenugba and John (2014), and Adam (2015), who found that gari firms encounter issues such as outmoded equipment, bad working conditions, insufficient raw materials, and risks. The finding is also consistent with a claim made in the conceptual framework that internal factors such as production problems affect gari enterprise operations. The implication of this finding is that gari output would be low and quality would be compromised, thereby, negatively affecting the revenue of owners of such enterprises.

The issue of technology adoption is linked to production problems. In-depth discussions with the participants revealed that they were resistant to implementing new technologies in their gari businesses. The problem is that they are skeptical of the results of such an endeavour and would instead go back to their old techniques of processing gari, which they think guarantees them acceptable results. However, the present methods of processing gari are time-consuming, limit productivity, and

expose gari to contamination. A typical situation was when a key informant from Damongo (February 3, 2020) said:

> I am incredibly comfortable with how I currently process my gari. I've been using this method for 15 years, and it's always worked for me; therefore, there's no need for me to switch to something new that I'll have to struggle to learn.

This remark indicates that certain gari processors are unwilling to change their techniques of processing gari because they are satisfied with the results and would find it difficult to adjust to the innovation. Gari enterprise owners are hesitant to accept new technology because they are accustomed to the status quo and are afraid of the unfamiliar. The inference is that efficiency and effectiveness will suffer, resulting in lower output. This finding is in line with that made by Ozigbo et al. (2020) that in Nigeria, the limited production of gari was because of the manual process deployed in peeling and frying of gari attributable to the slow pace of the adoption of modern methods of production. The finding is consistent with the assertion of the innovation diffusion theory that the adoption of an innovation is not instantaneous within a social system since potential adopters assess the relative advantage, compatibility, complexity, and triability (LaMorte, 2019; Rogers, 2003).

Besides, gari businesses had an issue with inadequate record keeping. Because many of the participants were illiterate, no records of their activities were kept. This means that they would not be able to assess their activities correctly. An instance was when a key informant from Damongo (February 3, 2020) stated, "I don't keep financial records of my sales since I'm illiterate. Because of this, it's impossible for me to know whether I'm profitable or not." This quote suggests that the participants' failure to keep financial records has a detrimental impact on their capacity to plan. Further, without records, it is difficult for financial institutions to offer them loan facilities, as they cannot assess their financial performance. This finding corroborates Nimoh et al.'s (2020) discovery that SMEs operating gari businesses in Kumasi have largely uneducated employees who cannot record their transactions. From a theoretical standpoint, the low education of the operatives of the gari enterprises hints at deficit human capital development, and as argued by the human capital theory, such shortfalls would negatively affect their productivity and earnings (Kwon, 2009; Royce, 2009).

Similarly, marketing problems affect the growth and ability of gari firms to enhance the living standards of individuals who work for them. Low costs, price instability, inadequate packaging, and a lack of information regarding market potential were among the issues that emerged from the participant interviews. "The prices of gari for

the past two years have been low and also fluctuate, which affects my revenue. Apart from that, I don't have any marketing talents that would allow me to sell more gari," a key participant from Damongo (February 3, 2020) reported. By the same token, a key participant from Busunu (February 9, 2020) remarked:

> My son, the money I make from my gari business comes from product sales. However, due to shifting prices and a lack of information about alternate markets with higher prices, I've been compelled to sell my gari at cheap rates, which has a detrimental impact on the income. This tends to demotivate me, prompting me to consider pursuing an alternate source of income.

Likewise, a key informant from Damongo (February 3, 2020) reported:

> I believe that my failure to make enough sales at the Damongo lorry station and at times at the market is due to the poor packaging. I simply measure and tie it in a transparent plastic bag. I don't have any more information regarding the nutritional values, expiration date, or how to use it. This indicates that my packaging doesn't entice customers to patronise my products.

In the same way, it is clear from the observation that gari's packing is straightforward. Figure 7 illustrates that the packaged gari is devoid of information, posing a risk to consumers' safety. Processors typically package it in translucent polythene without any branding. This indicates that the packaged product is not distinguishable from rivals' offerings and is not appealing enough to entice and drive potential customers to buy it. As a result, no one has a competitive advantage over his or her peers. In general, it is clear from the quotations above and the remark that marketing-related issues arise partly because of insufficient human capital development, which harms revenue potential. The findings are consistent with those published by Addy et al. (2004) and Ijigbade et al. (2014), who found that gari firms in Ghana and Nigeria, respectively, encounter insufficiency in skilled labour, low prices, and price fluctuations. Moreover, this study supports the human capital theory's notion that education and training are critical in boosting skill sets to increase productivity (Royce, 2009).

Figure 7: Packaged Gari at Damongo
Photo credit: Authors (2020)

Gari Industry's External Problems

The gari enterprises were also confronted with external problems that limited their ability to grow and serve as a conduit for poverty reduction. Financial and infrastructure problems were discovered during the interviews.

Financial issues have developed as a set of issues impeding the progress of the gari sector. Non-availability of capital, financial accessibility, insufficient accounting information, high interest rates, and collateral requirements were some of the issues that gari firms faced in this regard. According to the participants, these issues limit their capacity to expand by raising their operating costs and lowering their revenues. As a result, the ability to employ more people is limited, and income growth is constrained, limiting the potential to reduce poverty. For example, a key informant in Larabanga (February 6, 2020) stated:

> When I needed money to invest in my business, I ran into issues. I needed additional funds to purchase more cassava and saucepans for frying the gari. However, all of the banks and other financial institutions I visited demanded collateral, which I lacked. As a result, I was denied the loan.

As well, a key informant from Damongo (February 3, 2020) commented:

> I tried to apply for a credit facility to invest in my gari business, but after getting the loan, I regretted it because the interest rate was as

> high as 30%. Nonetheless, I had to go through much difficulty to achieve it.

The comments denote that obtaining credit from financial institutions was difficult and that they demanded high interest rates on loans, which affected the gari enterprises' operations. Rogers (2002) and Nimoh et al. (2020) both came to the same conclusion that SMEs have poor record keeping and have difficulty obtaining funding from financial institutions.

In addition, poor road conditions and insufficient water supply from both mechanised and non-mechanised boreholes are infrastructure issues militating against gari enterprises' operations. In an interview at Damongo, one of the participants alleged:

> In the production of gari, water is a necessary ingredient. It's used to clean the cassava after it's been peeled to ensure it's free of pollutants before it's crashed. However, because the Ghana Water Company no longer supplies water, it is challenging to obtain drinkable water in Damongo. We obtain water from private water vendors. Apart from water being expensive, you must wait in a long queue to obtain it, especially during the dry season. Furthermore, I have to cover a considerable distance to reach the nearest source of drinking water. This sometimes leads to skipping the washing of the cassava after peeling it. (Key informant from Damongo, February 3, 2020)

According to the above remark, the lack of drinkable water to aid in the processing makes them to skip a step, potentially harming the quality of the product. Onukwuli et al. (2014) discovered that SMEs in Nigeria have water accessibility challenges. The finding is also consistent with the conceptual framework's section that shows how external problems affect gari enterprise operations. Besides, the life cycle theory argues that these issues may jeopardize the survival of businesses (Mao, 2009).

Ranking of Gari Industry's Problems

The study also looked for the main roadblocks to the growth of gari enterprise as a panacea for poverty reduction. A pairwise ranking of problems was used to accomplish this. Figure 8 shows that production problems were the highest ranking problem, while technological adoption issues were the lowest ranking. Internal difficulties are the most significant problems to the progress of the enterprises, as shown in Figure 8, which supports the nexus indicated in the conceptual framework (Figure 1). This research backs up Ijigbade et al. (2014) and Nimoh et al.'s (2020) findings that

in Nigeria and Ghana, respectively, production-related issues are a key problem in the gari industry's operations. These problems tend to limit the maximum benefits such as the provision of employment opportunities, income for those engaged in the business, ready market for raw materials (cassava) and revenue for the Municipal assembly (taxes and market tolls) that could be obtained from the gari enterprises.

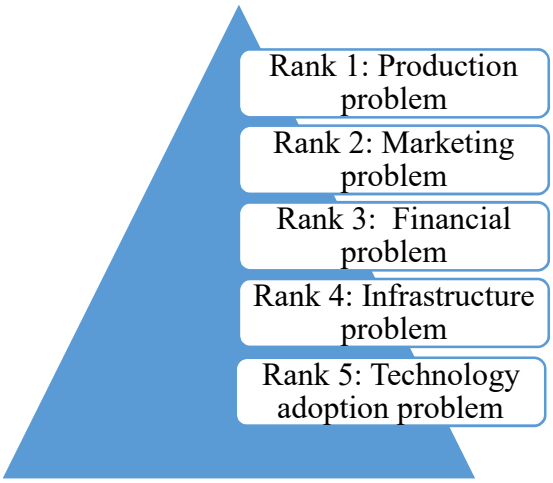

Figure 8: Pairwise Ranking of Problems Encountered in Gari Enterprises
Source: Authors' Construct (2020)

Conclusions and Implications for Policy

The study sets out to explore the problems gari SMEs encounter and to a large extent, such enterprises are plagued with problems that stem from both internal and external sources which tend to affect the fortunes of the enterprises. Particularly, the internal problems include production, record keeping, and marketing while the external problems consist of financial and limited infrastructure. However, the top problem category was production-related problems, which is an internal problem. The prevalence of these problems tends to impede gari enterprises' ability to enhance the living standards of individuals who work in them. The study's strength is the fact that it concentrated entirely on problems in the gari enterprise, which have gotten little attention in prior studies. It also does an in-depth examination of the problems and assigns a ranking to them. Nonetheless, the study's flaw is that it failed to categorise the problems according to the location: rural versus urban. Consequently, future studies could focus on disaggregating the problems gari enterprises encounter according to geographic locations (i.e., rural and urban).

Adoption of advanced technology in the processing of gari is imperative for the growth and sustainability of such enterprises. Thus, there is the need to deploy advanced dewatering, sieving, and frying equipment to boost the expansion of the enterprises. Because the usual dewatering method takes several days, this will ensure that their capacity is completely utilised and that processing time is reduced. With financial help from the West Gonja Municipal Assembly and other nongovernmental organisations (i.e., those involved in poverty reduction and/or enterprise development), the GRATIS Foundation could manufacture and sell this dewatering, sieving, and frying equipment to the gari processors at competitive prices. To guarantee that the technology is adopted, gari processors would require education on how to use it and the benefits that would accrue to them. The Ghana Enterprises Agency (formerly National Board for Small Scale Industries) can provide the training. Training gari processors on other nutritional ingredients, packaging, client scouting, and record keeping could also help with marketing. The West Gonja Municipality's office of the Ghana Enterprises Agency could be tasked to as well give this training. Alternatively, when it comes to marketing, gari processors can offer their products to senior high schools and Ghana School Feeding Programme, ensuring a ready market and steady prices. Finally, access to cheaper financing through the Microfinance and Small Loans Centre (MASLOC) could help gari enterprises ameliorate their financial problems.

REFERENCES

Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2019). SMEs in sustainable development: Their role in poverty reduction and employment generation in sub-Saharan Africa. African Journal of Science, Technology, Innovation and Development, 12(4), 405-419. https://doi.org/10.1080/20421338.2019.1656428

Abor, J., & Quartey, P. (2010). Issues in SMEs in Ghana and South Africa. International Research, Journal of Finance and Economics Issue, 39, 218-228.

Adabie, D. (2015). Occupational health hazards associated with gari production and the possible environmental effects of the resultant effluent. Unpublished Master's Thesis, University of Ghana.

Adam, H. (2015). Fighting rural poverty: Understanding livelihood diversification strategies and patterns of women in Northern Region of Ghana. International Journal of Development Research, 5(2), 3573-3581.

Addy, P.S., Kashaija, I.N., Moyo, M.T., Quynh, N.K., Singh., S, & Walekhwa, P.N. (2004). Constraints and opportunities for small and medium scale processing of cassava in the Ashanti and Brong Ahafo Regions of Ghana (Working Document Series 117). https://www.betuco.be/manioc/Processing%20of%20cassa va% 20ghana.pdf

Adenugba, A.A., & John, P. (2014). Hazardous conditions of women in gari processing industry In Ibadan, South West, Nigeria. Journal of Educational and Social Research, 4(3), 511-521. https://doi.org/10.5901/jesr.2014.v4n3p511

Agwu, M.O., & Emeti, C.I. (2014). Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt City, Nigeria. European Journal of Sustainable Development, 3 (1), 101-114. https://doi.org/10.14207/ejsd.2014.v3n1p101

Arendt, L. (2008). Barriers to ICT adoption in SMEs: How to bridge the digital divide. Journal of Systems and Information Technology, 10(2), 93–108.

Ashrafi, R., & Murtaza, M. (2008). Use and impact of ICT on SMEs in Oman. Electronic Journal Information Systems Evaluation, 11(3), 125–138.

Asogwa, B.C., Umeh, J.C., & Ater, P.I. (2006). Technical efficiency analysis of Nigerian cassava farmers: a guide for food security policy. Poster paper prepared for presentation at the International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006. https://ageconsearch.umn.edu/record/25473/?ln=en

Atuna, R. A., Achaglinkame, M. A., Accorley, T. A. S., & Amagloh, F. K. (2021). Cassava Orange-Fleshed Sweetpotato Composite Gari: A Potential Source of Dietary Vitamin A. Frontiers in Nutrition, 8, 1-11. doi: 10.3389/fnut.2021.646051

Bartlett, W., & Bukviæ, V. (2001). Barriers to SME growth in Slovenia. MOCT-MOST: Economic Policy in Transitional Economies, 11, 177 – 195.

Buwah, R. (2012). The contribution of improved cassava processing -gari fortified with soybeans and its implications for household food accessibility: A case of Damongo West Gonja District, Ghana. Unpublished Master's Thesis, Van Hall Larenstein University of Applied Sciences Wageningen, The Netherlands.

Cant, M. (2012). Challenges faced by SME'S in South Africa. International Business and Economic Research Journal, 11(10), 1107-116.

Chhabra, S. (2013). Challenges and opportunities of small scale industries in Nagaland: An overview. International Journal of Entrepreneurship & Business Environment Perspectives, 2(2), 359-363.

Chuang, T., Nakatani, K., & Zhou, D. (2009). An exploratory study of the extent of information technology adoption in SMEs: An application of upper echelon theory. Journal of Enterprise Information Management, 22(1/2), 183–196.

Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). Routledge.

Cora, E. L., & Tantău, A. D. (2013). A risk mitigation model in SME's open innovation projects. Management & Marketing, 8(2), 303-328.

Davis, E. P., & Sanchez-Martinez, M. (2014). A review of the economic theories of poverty (Discussion Paper No. 435). http://www.niesr.ac.uk/sites /default /files/ publications/dp435_0.pdf.

Dhiman, P.K., & Rani, M. (2011). Problems and prospects of small scale agro based industries: An analysis of Patiala District. International Journal of Multidisciplinary Research, 1(4), 129-142.

Dhore, K.B. (2015). Opportunities and challenges for small scale industries of India in a global economy. The Business & Management Review, 5(4), 101-109.

Eze, J.I. (2010). Converting cassava (manihot spp) waste from gari processing industry to energy and bio-fertilizer. Global Journal of Researches in Engineering, 10(4), 113-117.

Funke, O., Raphel, B., & Kabir, S. (2012). Market Structure, Conduct and Performance of Gari Processing Industry in South Western Nigeria. European Journal of Business and Management, 4(2), 99-112.

Ghana Statistical Service (GSS). (2014). 2010 population and housing census: District analytical report-West Gonja District. GSS.

Ghana Statistical Service (GSS). (2015). Ghana poverty mapping report. GSS.

Ghana Statistical Service (GSS). (2021). Ghana 2021 Population and Housing Census general report volume 3A: Population of regions and districts. https://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203A_Population%20of%20Regions%20and%20Districts_181121.pdf

Golding, P., Donaldson, O., Tennant, V., & Black, K. (2008). An analysis of factors affecting the adoption of ICT by MSMEs in rural and urban Jamaica. European Conference on Information Systems 2008 Proceedings. https://aisel.aisnet.org/ecis2008/237/

Heale, R., & Twycross, A. (2018). What is a case study? Evidence Based Nursing, 21(1), 7-8. https://doi.org/10.1136/eb-2017-102845

Hisrich, R.D., & Peters, M.P. (2002). Entrepreneurship (4th ed.). Irwin McGraw-Hill.

Ijigbade, J. O., Fatuase, A.I., & Omisope, E.T. (2014). Conduct and profitability of gari production for increased food security in Ondo State, Nigeria. Journal of Humanities and Social Science, 19(7), 89-95.

James, B., Okechukwu, R., Abass, A., Fannah, S., Maziya-Dixon, B., Sanni, L., Osei-Sarfoh, A., Fomba, S., & Lukombo, S. (2012). Producing Gari from Cassava: An illustrated guide for smallholder cassava processors. International Institute of Tropical Agriculture (IITA).

Kayanula, D., & Quartey, P. (2000). The policy environment for promoting small and medium sized enterprise in Ghana and Malawi (Finance and Development Research Programme Working Paper. Series No.15). Institute for Development Policy and Management, University of Manchester. https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-the-policy-environment-for-promoting-small-and-medium-sized-enterprises-in-ghana-and-malawi-2000.pdf

Kiger, M.E., & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. Medical Teacher. https://doi.org/10.1080/0142159X.2020.1755030

Kumar, R. (2011). Research methodology: A step-by-step guide for beginners. SAGE Publications.

Kwon, D. B. (2009). Human capital and its measurement. Paper presented at the 3rd OECD World Forum on "Statistics, Knowledge and Policy" Charting Progress, Building Visions, Improving Life, Busan, Korea, 27th-30th October, 2009. https://www.oecd.org/site/progresskorea/44111355.pdf

LaMorte, W.W. (2019). Diffusion of innovation theory. Boston University School of Public Health. https://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChange Theories/ BehavioralChangeTheories4.html

Leite, P. S. (2018). The weapons against poverty. HBM digital graphics.

Mamman, A., Kanu, A. M., Alharbi, A., & Baydoun, N. (2015). Small and Medium Sized Enterprises (SMEs) and Poverty Reduction in Africa: Strategic Management Perspective. Cambridge Scholar Publishing.

Mao, H. (2009). Review on enterprise growth theories. International Journal of Business and Management, 4(8), 20-23.

Mashimba, S.H., & Kühl, P. (2014). Performance of micro and small-scale enterprises (MSES) in Tanzania: Growth hazards of fruit and vegetables processing vendors. Journal of Applied Economics and Business Research, 4(2), 120-133.

Medlin, B.D. (2001). The factors that may influence a faculty member's decision to adopt electronic technologies in instruction (Doctoral dissertation, Virginia Polytechnic Institute and State University, 2001). ProQuest Digital Dissertations. (UMI No. AAT 3095210).

Mensah, S.A. (2007). Promoting and supporting the role of women in partnership for rural development. Tema, Ghana: GRATIS Foundation.

Mustafa, H. K., & Yaakub, S. (2018). Innovation and Technology Adoption Challenges: Impact on SMEs' Company Performance. International Journal of Accounting, Finance and Business, 3(15), 57-65.

Neuman, W. L. (2011). Basics of social research methods: Qualitative and quantitative approaches (3rd ed.). Pearson Education, Inc.

Nimoh, F., Richmond, A. R., Asiamah, M. T., Yeboah, B., Agyekum, I., Kpe, P. D. K., & Kouao, D. K. (2020). Financial performance and constraints in gari production in Kumasi, Ghana. African Journal of Food, Agriculture, Nutrition and Development, 20(4), 16085-16098. https://doi.org/10.18697/ajfand.92.18410

Njukwe, E., Onadipe, O., Amadou Thierno, D., Hanna, R., Kirscht, H., Maziya-Dixon, B., ... & Ngue-Bissa, T. (2014). Cassava processing among small-holder farmers in Cameroon: opportunities and challenges. International Journal of Agricultural Policy and Research, 2(4), 113-124.

Nock, M.K., & Michel, B.D. (2007). Single-case research designs. https://us.sagepub.com/sites/default/files/upm-assets/19353_book_item_19353.pdf

Ogujiuba, K., Obi, K., & Dike, E. (2011). Poverty, social structure, wealth distribution and markets: Under the nexus. Economics and Finance Review, 1(6), 01 – 11.

Okareh, O. T., Ogunfayo, A. I., & Atulumah, N. O. (2015). Hazards associated with small scale gari processing in Ibadan metropolis, Nigeria. actaSATECH, 6(1), 64-69.

Onukwuli, A.G., Akam, U.G., & Onwuka, E.M. (2014). Defies of small scale industries in sustainable development in Nigeria. Journal of Business and Management, 16(5), 19-25.

Opoku-Mensah, S., Agbekpornu, H., & Wongnaa, C. A. (2014). Economic returns of gari processing enterprises in the Mampong Municipality, Ghana. International Journal of Agriculture Innovations and Research, 2(4), 502-509.

Osamwonyi, I.O. (2009). The Nigerian economy, Edo State unemployment and the role of entrepreneurship. In Osamwonyi, I.O. (ed), Training manual for participants of graduate entrepreneurial scheme, Osatech Group Consulting.

Osotimehin, K.O., Jegede, C.A., Akinlabi, B.H., & Olajide, O.T. (2012). An evaluation of the defies and prospects of micro and small scale enterprises development in Nigeria. American International Journal of Contemporary Research, 2(4), 174-185.

Ozigbo, E.S., Bamgboye, A.I., Adunoye, F.O., & Murphy, K.M. (2020). Review of Gari Processing Technologies: The Challenges and Prospects. International Journal of Innovative Science and Research Technology, 5(5), 1309- 1316.

Rogers, B.A. (2002). Funding of SMEs: Sourcing of funds and problems limiting access. The official Journal of the institute of chartered accountant of Nigeria, 35 (1), 15-18.

Rogers, E.M. (2003). Diffusion of innovations (5th ed.). Free Press.

Royce, E. (2009). Poverty and power: A structural perspective on American inequality. Rowman & Littlefield Publishers, Inc.

Sarantakos, S. (2005). Social research (3rd ed.). Palgrave Macmillan.

Scarborough, N. M., & Cornwall, J.R. (2014). Essential of entrepreneurship and small business management (6th ed.). Pearson.

Scheers, L.V. (2010). SMEs marketing skills in South Africa. African Journal of Business Management, 5(13), 5048-5056.

Sherry, L., & Gibson, D. (2002). The path to teacher leadership in educational technology. Contemporary issues in technology and teacher education, 2(2), 178-203.

Stefañczyk, P. (2013). Use of enterprise growth theory in management of small and medium sized enterprises. Polish Journal of Management Studies, 7, 315-326.

Tabor J., Mawuena, D., Ekekpi, G., & Nornoo, C. (2002). Final evaluation of the food security training and outreach services initiative title II development assistance program. Opportunities Industrialization Centers International Ghana Program. http://pdf.usaid.gov/pdf_docs/PDACD778.pdf

Taunk, A., & Kumar, A. (2013). Fear and defies faced by small scale industries of India in the world of globalisation. Global Journals Inc., 13(3), 44-48.

West Gonja District Assembly (WGDA). (2011). 2010 annual progress report West Gonja District Assembly Damongo. Unpublished Manuscript.

West Gonja District Composite Budget. (2014). The composite budget of the West Gonja District Assembly for the 2014 fiscal year. https://www.mofep.gov.gh/sites/default/files/composite-budget/2014/NR/WestGonja .pdf

Yin, R.K. (2014). Case study research: Design and methods (5th ed.). Sage.