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Monopolistic Competition and Market Positioning Strategies in Zimbabwe's Brewing Industry: Implications for Upgrading the Sorghum Value Chain

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Abstract
Zimbabwe's brewing industry is characterized by monopolistic competition, jostling for market share and information asymmetry in smallholder farmer's contracts. This study sets out to investigate the evolving structure of Zimbabwe's brewing industry, contract design and performance and market failures. The objectives of this study are to 1 Determine emerging competition for beer brewing industries in Zimbabwe 2. Describe market positioning strategies to enhance the performance of sorghum contracts. 3.Identify marketing challenges faced by farmers and brewing companies in sorghum value chain. 4. Recommend government intervention in order to provide an enabling policy environment for contract farming in Zimbabwe. The study was conducted in 4 districts (Binga, Chiredzi, Hwange, Matobo) that are situated in Natural Regions IV and V. A mixed methods cross sectional study triangulated with multiple data sources was used. A survey questionnaire was used to collect data from 281 respondents who were randomly selected from four districts in regions IV and V. A multistage sampling approach with purposive selection of districts dominant in small grain production was conducted. For each district, two wards were selected randomly. Contract and spot markets were the vertical coordination strategies considered in this study. Multiple Linear regression model was used to determine factors associated with small grain quantity sold. Thematic analysis using Porter's five forces was used to assess the competitive strength and market positioning strategies of beer brewing contracting companies. Results showed that Delta Corporation Private Limited is the leading competitor among the brewing companies in Zimbabwe. The brewing industry is characterized by price discrimination, and vigorous competition in terms of development of raw products, brand promotion, entertainment, farmer training, transport provision, sorting and grading. There are few players in the beer industry with large share of market and rivalry limited to customer preferences. On market position strategies the industry uses product differentiation where Ingwebu Breweries produces top quality sorghum beer and different flavours for mahewu whilst Delta company has wide product range such as soft drinks, beers and mahewu. Farmers have been faced with resource

limitation, poor road network whilst contracting companies have challenges in collecting poor quality grain as well as low volumes of grain from farmers. From the whole industry's performance, it has been seen that future prospects of beer industry of Zimbabwe are bright. There is need to lower entry barriers and promote competition and product differentiation among brewing firms. The policy recommendation should target behavior of monopolistic firms and seemingly unfair treatment of farmers.

Key words: contract farming, small grain, barriers, competition, market positioning

1.1 Introduction

The Zimbabwean beer industry is characterized by high levels of concentration with Delta Corporation dominating the market. The companies that contract smallholder sorghum farmers are Delta Corporation Private Limited, Ingwebu Breweries Private Limited, Tongaat Hullett Private Limited and Reapers Private Limited. The companies (Delta, Ingwebu) are beer companies whilst Tongaat Hullett's sorghum is for livestock feed. Reapers is a seed house that processes small grain for food security and retention of traditional crops. This paper tends to examine the structure, conduct and performance of Zimbabwe's emerging beer industry. The paradigm contends that the industry's performance which is the success of an industry in producing benefits for consumers, depends on the behavior of businesses in the market, which in turn depends on the structure of the market. Zimbabwe's brewing industry is not yet mature and is still evolving structurally with the entry of relatively new challengers tussling dominant player for market share and profitability.

1.2 Background: Overview of Brewing Industry in Zimbabwe

The brewery industry developed interest in the sorghum crop from the early 1980s when investigations were made into the possibility of using the sorghum malt as a substitute for barley malt in the production of opaque beer. This was a cost cutting measure as it allowed industrial breweries to save foreign exchange on imported barley malt (AGRITEX, 2015). Although field trials on the crop's productivity and potential to substitute barley proved successful, the unavailability of local varieties suitably adapted to local conditions, particularly in terms of grain quality made industries lose their initial zeal in local sorghum production (Chisango and Maposa, 2016).

Although brewing companies, which are major buyers and consumers of sorghum have made serious efforts to link farmers to niche markets with the help of some non-governmental organizations (NGOs) involved in seed distribution programs in Zimbabwe, such collective efforts have not yielded significant positive results. The buying and processing of smallholder small grains in Zimbabwe is hindered by lack of infrastructure particularly in the dry areas. In these arid and semi-arid regions of Zimbabwe, red sorghum is mainly cultivated by smallholder farmers with average land holdings not greater than 2 ha (AGRITEX, 2015), and traditionally it is regarded as a women's crop with little economic significance attached to it. Brewers such as Delta Corporation convert sorghum into seed, and malt which goes into beer production. Ingwebu acquires its raw products from Binga and Chiredzi and its sole plant is located in Bulawayo whilst Delta corporation's footprint is more widespread as it covers the whole country. The microbreweries operate in communities that are not populated enough to sustain more than a limited number of beer establishments, limiting the potential for successful expansion at a local level. Despite heavy advertising acting as a barrier to entry, there are many players in the industry ranging from home beer makers through city council breweries to bigger companies such as Delta. All these provide different brands and create fierce competition in the industry. Tongaat Hullett runs a sorghum out-grower project and uses sorghum as a stock feed. Reapers Private Limited is a registered seed house that is an agro-processor of small grains and also runs a sorghum out-grower project with farmers predominantly based in Chiredzi District.

In Zimbabwe many contract farming schemes involving smallholder farmers have collapsed, even when farmers had been provided with all the necessary inputs essential to meet the production frontiers of cropping ventures (Phiri et al., 2019). Mutambara et al. (2013) reported that road transportation has been associated with high haulage costs compared to the alternative of rail. Contracting companies however perceived that the major challenges they faced in contracting smallholder farmers were a result of low yields and poor produce quality due to poor management, poor timing of operations and side marketing of the produce (Phiri et al., 2020). The players and their products are shown in the Table 1 below.

Table 1: Players and Products in the Zimbabwean small grain contracting companies in Zimbabwe

Player Year	**Year Established**	**Product Range**
Ingwebu Breweries	1913	Indlovu Calabash, Shake-shake, Utshwala tshwala
Delta Beverages	1898	Castle lager, Eagle lager, Zambezi lager, Carling Black label, Golden Pilsner lager, Bohlingers lager, Lion lager, Traditional beer-Chibuku
Reapers	1997	Small grain seed, groundnuts, grain
Tongaat Hullets	1800	Livestock feed, sugar, mollases

Source: Adopted from Chidoko et al. (2015)

Structure of brewing industry

Chidoko et al. (2015) describes organization structure as to how sellers and buyers interact with each other. It describes the market environment within which firms in a particular market operate. It also defines products in terms of the potential number of variations in which the product can be produced. The major elements of market structure describe ways in which markets depart from the conditions that describe perfect competition and these include the number of buyers and sellers, barriers to entry, product differentiation, vertical and horizontal integration, diversification among others. The brewing industry in Zimbabwe is comprised of both small and large firms which make up a monopolistic market structure.

Market capitalization refers to the total dollar market value of a company’s outstanding shares. Commonly referred to as “market cap,” it is calculated by multiplying a company’s shares outstanding by the current market price of one share. Delta is the largest brewing company in Zimbabwe. Delta Corporation Private Limited is principally an integrated beverage company with a diverse portfolio of local and international brands in lager beer, traditional beer, Coca-Cola franchised sparkling and alternative non-alcoholic beverages. It has investments in associate companies whose activities are in cordials and juice drinks, wines and spirits. On last year’s list it was number 1, with a market cap of US$742 million (Delta annual report, 2020). The other companies (Ingwebu breweries and Tongaat Hulett) in this study fall below the top ten. Delta Corporation Private Limited has 13000 employees with 14 outlets in the country with regional presence in Zambia, South Africa, Tanzania, Zambia, Ghana and Nigeria (Adebiyi, et al., 2016). The company has a total revenue of USD 523 million per year (Delta annual report, 2020). The number and size of distribution of firms in an industry (Sutton, 1991, 1999) describe concentration. Delta Corporation Private Limited is a giant in the brewing industry with a higher concentration ratio compared to Ingwebu Breweries Private Limited. It appears that increases in scale economies and high sunk costs due to advertising are important causes of rising concentration in the macro sector of the brewing industry (Tremblay and Tremblay (2005).

Overview of Sorghum Production in Zimbabwe

There is an urgent need to improve the production technology of sorghum grains in Zimbabwe and adopt newer technology from countries such as Botswana and disseminate it to farmers (Ingwebu Breweries Annual report, 2019). Post-harvest sorghum processing is labour-intensive and there is a need to adapt small-scale equipment that can be used by communal farmers and boost their production, thereby decreasing post-harvest losses. However, research has shown that beyond food security and provision of cash, the value of sorghum is linked to the social context and religious ceremonies, a typical common practice in Zimbabwe's rural communities (Chisango and Maposa, 2016).

During 2003-4 seasons, Seed Co-op through its Rattray Arnold Research Station field trials released a red sorghum hybrid variety NS5511 suitable for opaque beer brewery (Mathew, 2015). Breweries in Zimbabwe therefore started to partially substitute imported barley with sorghum. Furthermore, between 2011 and 2013, several efforts were made by companies such as Ingwebu breweries to contract farmers in Binga district to produce sorghum via out grower contract farming schemes, but with little success due to the difficulties encountered by farmers in the contractual agreement terms with the company (Chisango and Maposa, 2016). Traditionally, contract farming has been the domain of commercial agriculture due to the perceived high risk associated with extending such schemes to the smallholder sector. Yet in terms of developing inclusive sorghum value chain, involvement of smallholder farmers in contracts is fundamental and critical to upgrading of this value chain. The unfavourable policy environment prevailing in the country exacerbated the situation as farmers felt that there was lack of transparency in the way producer prices were set by contractors hence depriving them of their bargaining powers and that the output grading systems actually worked against them (Chisango and Maposa, 2016). It is therefore against such a background that the study was carried out to analyze the competitive behavior of the emerging market for brewing firms, nature of contract designs for smallholder sorghum farmers, and potential strategies for upgrading the sorghum value chains in Zimbabwe with particular reference to Binga, Chiredzi, Hwange and Matobo districts.

1.3 Research Objectives

The general objective of this study is to investigate the development of Zimbabwe's emerging brewing industry during the post-independence period (i.e., 1980 -2022). The specific objectives of the study are to;

1. Determine the nature and level of competition in the beer brewing industry in Zimbabwe.
2. Examine the market positioning strategies deployed by brewing firms to enhance the performance of sorghum contracts in Zimbabwe.
3. Identify key challenges faced by contracting farmers in the sorghum value chain.
4. Recommend government intervention measures to stimulate and upgrade smallholder sorghum value chain through contract farming practices.

2. Conceptual Frameworks

The conceptual framework for this study is derived from a nexus of three key theories, the theory of perfect competition, Structure Conduct Performance Model and Michael Porter Five Forces. Perfect competition describes the atomicity of firms where they are numerous firms with no price discrimination or the power to influence prices. The corollary is a market where there is single buyer with capacity to manipulate prices and reap monopolistic profits. The Structure Conduct Performance model links the prevailing structure of the industry to conduct or behavior of the firms involved in the market which in turn leads to the overall performance of the industry in terms of efficiency, profitability and product quality. Porter's Five Forces of Competitive Position Analysis were developed in 1979 by Michael E Porter of Harvard Business School as a simple framework for assessing and evaluating the competitive strength and position of a business organization (Porter, 2008). The study adopted this complementary theory as it helps one to discover who has the most power in a given situation.

Porter developed his five forces framework in reaction to the then-popular Strength, Weakness, SWOT analysis, which he found both lacking in rigor and ad hoc (Porter et al., 2020). Porter's five-forces framework is based on the structure–conduct–performance paradigm in industrial organizational economics. Other Porter strategy tools include the value chain and generic competitive strategies.

Figure 1: Porter's Five Forces of Competitive Position

Source: Adapted from Porter et al (2020)

2.1.1Threat of new entrants

New entrants put pressure on current organizations within an industry through their desire to gain market share. The market is open but the beer product is regulated by government of Zimbabwe where special permits have to be granted for firms to start operating in the beer industry. Capital investment and regulation costs in the beer industry in Zimbabwe are relatively high and that tends to scare new entrants. This in turn puts pressure on prices, costs, and the rate of investment needed to sustain a business within the industry. Barriers to entry restrict the threat of new entrants. If the barriers are high, the threat of new entrants is reduced and conversely if the barriers are low, the risk of new companies venturing into a given market is high. Barriers to entry are advantages that existing, established companies have over new entrants (Kelly, 2012; Porter, 2008).

2.1.2 Threat of substitutes

A substitute product uses a different technology to try to solve the same economic need (Porter, 2008). Examples of substitutes in the beer industry are mahewu and liquor. The availability of substitutes impacts industry profits because consumers may choose a substitute good over this industry. According the trade group Beverage Industry, alcoholic beverage consumption per capita has risen since 2000 at around 1 percent per year. (Baker and Da Silva, 2006). This suggests that alcohol consumers on average are not substituting non-alcoholic beverages for the alcohol they currently consume. Therefore, in analyzing substitutes for the beer industry, we should focus our attention on other forms of alcohol, such as wine and liquor.

2.1.3 Bargaining power of customers

The bargaining power of customers is also described as the market of outputs: the ability of customers to put the firm under pressure, which also affects the customer's sensitivity to price changes (Porter, 2008). Buyers' power for beer industry in Zimbabwe is high as they have many alternatives in terms of a huge number of smallholder sorghum farmers across the country. The demand for sorghum grain is low especially in Chiredzi where almost every farmer grows sorghum. Therefore, consumer’s bargaining power is low if they have fewer choices.

2.1.4 Bargaining power of suppliers

The bargaining power of suppliers is also described as the market of inputs (Porter, 2020). Suppliers of raw materials, components, labor, and services (such as expertise) to the firm can be a source of power over the firm when there are few substitutes. If one is making beer and there is only one person who sells sorghum, one has no alternative but to buy it from them. Suppliers may refuse to work with the firm or charge excessively high prices for unique resources.

2.1.5 Competitive rivalry

Competitive rivalry is a measure of the extent of competition among existing firms. Price cuts, increased advertising expenditures, or investing on service/product enhancements and innovation are all examples of competitive moves that might limit profitability and lead to competitive moves (Dhliwayo, 2022). For most industries the intensity of competitive rivalry is the biggest determinant of the competitiveness of the industry. Having an understanding of industry rivals is vital to successfully marketing a product. Positioning depends on how the public perceives a product and distinguishes it from that of competitors. An organization must be aware of its competitors' marketing and pricing strategies and also be proactive in reacting to any changes made.

The beer industry primarily competes with non-price-based rivalry. Within the industry there is a lot of product differentiation. The term used to differentiate and categorize beers is known as the beer style (Chidoko et al., 2015). Different breweries use various beer styles to meet consumer preferences. Beer styles can vary depending on the color, flavor, strength, ingredients, production method, recipe, history, or origin of the beer.

2.2 RELATED LITERATURE

Performance of contract-based smallholder sorghum value chains in Africa, Asia and Latin America

Globally, sorghum production still remains below its yield potential. The reasons lie in its traditional reputation as a coarse grain used primarily as animal feed and dubbed ‘the poor man’s food’, reserved for low-income populations (Mundia et al., 2019). Sorghum grain is the 5th most significant cereal crop cultivated globally. The grain species originated in Australia, Mesoamerica, Africa, Indian Ocean and parts of the Pacific Ocean (Kanana and Mbugua 2019). Sorghum serves as a cash crop and also it is consumed domestically. There are a range of uses that sorghum carries which include human food, biofuel, animal feed, production of flour and alcoholic beverages. Nutritionists classify sorghum as an extremely healthy cereal which is rich in vital nutrients that are very important in the body. Owing to its nutritional and rising commercial value, several countries around the globe promote production of this crop.

Statistics from the Food and Agriculture Organization of the United Nations have ranked the USA as the top most producer of sorghum with an average production of 11.5 million tonnes. India comes second; with the ideal climate in the country the farmers do not use any supplementary mechanisms to hasten the growth of the crop. Nigeria ranks third globally and the top in Africa. Other countries in the top ten list of sorghum production globally are; Mexico, Sudan , China, Argentina, Ethiopia and Australia (Chelengat, 2017). Sorghum is mainly grown in the semi-arid of Africa and Asia, probably owing to its diversity and versatility. The future of the sorghum value chain is linked to food security, poverty alleviation and income growth.

Smallholder farmers in the Sub-Saharan Africa live below the poverty line and they depend on agriculture as their main source of livelihood (Chen and Martin, 2010). The major contributing factors towards poverty have been low production and limited market opportunities for their harvest which results in majority of the farmers failing to purchase quality inputs due to poor credit accessibility. According to (Tschirley et al., 2009), initiatives to reverse the trend have been established; the private sector and the government have joined hands in introducing the concept of contract farming (CF) especially with smallholder farmers. This is to counteract these circumstances and provide an alternative solution by providing inputs on credit and an assured market for their produce. In developing countries, CF has enabled farmers to commercialize their operations through markets that have been created domestically and internationally.

Contract farming has been practiced in the Sub-Saharan Africa countries for several crops and for a long time. For instance, Zimbabwe, Zambia, Malawi and Mozambique are widely known for production of cotton under CF. However, there are no reliable figures indicating the number of farmers participating in CF in developing countries. The informal estimates show that in Zimbabwe for example, only a quarter of the farmers produce under contract. The low inclusivity rates highlight the need to attract and increase smallholder farmers' participation in modern sorghum value chains. Promoting financial inclusion through enhancing access to credit plays a pivotal role in transforming smallholder sorghum value chains from discriminatory into inclusive chains that can uplift living standards of poor rural farmers.

In Zimbabwe, sorghum has been a deserted crop over time and serving the subsistence purposes only. The cereal crop lost favour when most farmers shifted to maize which became the staple food and most preferred crop upon introduction by the colonizers. However, owing to the effects of climate change, Zimbabwe has been experiencing declining rainfall amounts. As a result, it has become a food deficit country due to decreased food production. This has necessitated the Zimbabwean government through brewing companies like Delta Corporation Private Limited and Ingwebu Breweries Private Limited to establish programmes such as contract farming that promote growth of drought tolerant crops such as sorghum, which is known to adapt well in harsh environments as a means of improving income and ensuring food security.

Contract Farming (CF) in smallholder agriculture context is an arrangement involving two or more parties who come into an agreement, whereby one party (i.e., smallholder farmer) is the producer and the other the buyer (i.e., brewing firm) (Setboonsarng et al., 2011). According to Bellemare, (2012), CF is a scheme of promoting smallholder involvement in rationalized market opportunities, thereby boosting and securing smallholder farmer' s returns. In normal circumstances, the buyer will create a good production environment by empowering the producer with the expectation of buying the produce during harvestIn addition, Bellemare and Bloem (2018) defines contract farming as an agreement between one or more farmer (s) and a contractor for the production and supply of agricultural products under forward agreements, frequently at pre-determined prices. The main goal of CF is to create a ready market to the farmers, provide agricultural extension services and inputs (Birthal, 2010). On the other hand, the sorghum farmers, should commit to produce the contracted crop according to the specifications given by the purchasers in terms of quality, quantity and standards. With the above-mentioned services to be provided by the contractor, contract farming is expected to reduce poverty, hunger and catalyse economic development (Parekh, 2013).

Some authors have recorded that the efficacy of a contract arrangement is determined by the type of interaction between farmers, buyers and other stakeholders involved in the contract scheme. Where CF has been unsuccessful, a number of cases have been reported as the cause; poor management among parties, poor terms and conditions and post determination of prices that are dictated by contract markets. Consequently, this has caused unfavourable selection, moral hazards and breach of contracts. Bellemare and Bloem (2018) affirm that with effective management, contract farming can be a means to develop markets and bring about the transfer of technical skills in a way that is profitable for both the contractor and the farmer. Performance of contract farming in this case was measured by indicators such as number of farmers benefiting from CF, volumes of sorghum delivered by contracted farmers, number of acreages utilized under CF and number of contracts signed.

Challenges of contract farming in developing countries

In developing countries, access to agricultural inputs has been cited as a major challenge to smallholder farmers. In a contract production context, the financial and input demands coupled with labour requirements tend to be higher as compared to a non-contract arrangement. Key and Runsten (2013), therefore argue that inputs supply arrangements and financial linkages are important elements of a contract design targeting smallholder farmers. According to Chavas (2010) smallholder farmers are limited to produce in large scale due to the lack of access to certified inputs and input loans. In addition, the smallholder farmers have very small land sizes making it challenging to compete with large scale growers. Several studies have discussed the negative impacts of CF (Simmons, 2005). Information asymmetry and the imbalance of bargaining power between contractual parties are critical issues in the CF literature (Veettil et al., 2021). Further, the lack of a proper legal and compliance framework to support new institutional mechanisms in many developing countries leave smallholders exposed to risks (Barrett, 2012). In the absence of a strong legal framework, companies and other agents in the seed production chain could falsify contracts by raising quality standards to control volume, alter the agreed prices, or even resort to cheating (Veettil et al., 2021). Manipulations may occur at various levels and firms tend to favor large farmers, delay payments, not provide compensation for natural calamity loss, and conceal the pricing method (Grosh, 1994).

Side selling seems to be economically unsound but it remains to be a rational decision from a small- scale farmer's livelihood perspective (Mujawamariya et al., 2013). However, side selling has remained as the main challenge in vertical coordination strategic option's operations as it breaches the trust of the two actors, increases the buyer's transaction costs and terminates the agreement (Repar et al., 2018). Some works of literature (Gallacher 2012; Goel, 2014; Mujawamariya et al. 2013; Shumeta et al. 2018; Repar et al.2018), have tackled side selling but did not take into account important policy variables such as neighbourhood effect, extension contacts, level of bargaining power and network externalities alongside trust, credit provision, higher prices, off-farm income, delayed payment and experience in sorghum production.

In Zimbabwe, many contract farming schemes involving smallholder farmers have collapsed, even when farmers had been provided with all the necessary inputs essential to meet the production frontiers of cropping ventures. Mutambara et al. (2013) reported that, "the transportation through the use of road facilities has been associated with high transport costs compared to the alternative of rail." Contracting companies however perceived that the major challenges they faced in contracting smallholder farmers were a result of low yields and poor produce quality due to poor management, poor timing of operations and side marketing of the produce (Phiri et al., 2020). The unfavourable policy environment prevailing in the country exacerbated the situation as farmers felt that there was lack of transparency in the way producer prices were set by contractors hence depriving them of their bargaining powers and that the output grading systems actually worked against them (Chisango and Maposa, 2016).

Benefits of contract farming

Contract farming provides diverse opportunities to farmers ranging from accessibility to a reliable market and most importantly provision to credit access, inputs, marketing and production services (training and extension services). Contract farming can encourage technology and skills transfer supporting the smallholder farmers in meeting vital crop standards required in the market (Prowse, 2012). Masakure (2011), delineates that contract farming has numerous benefits: increase on-farm diversification, technical assistance and skills transfer. This is true because contract farming offers the opportunity to learn basic concepts on production. The skills learnt through CF may include; efficacy in utilization of farm resources, record keeping, inputs application and quality standards. Moreover, spillover effect to the adjacent fields may occur and an improvement in their overall farming practices observed. According to Mwamakimbula (2014), farmers will voluntarily participate in extension training if their needs and preferences have to be addressed. Guo et al. (2009) discovered in a study of contract farming in some eastern provinces in China, that smallholder farmers are attracted to contract farming so as to obtain the advantages of technical assistance to improve product quality, credit access and input supply arrangement.

A different survey conducted by Moyo, (2014) in Mazowe district in Zimbabwe revealed that most tobacco contract farmers get extension services from their contractors unlike those not contracted. The survey revealed that 100% of the contracted farmers receive extension services while 35% of the non-contracted farmers do not access extension services. This is because the non-contracted farmers entirely rely on government services which are not reliable especially owing to the budgetary constraints facing the government. Similarly, 93.2% of the contract farmers reported receiving extension advice on production of small grain over the past 5 years (Dube-Takaza et al., 2022). With the contracting firms providing trainings and production inputs arrangements, this largely influences farmer's operations thereby impacting positively on the quality and quantity of crops produced. Therefore, the difference in performance between the contract and non-contract farmers can be attributed to the CF intervention (Moyo, 2014).

Seed production and supply in smallholder farmers' contracts

Most seed companies have their own breeding programs, do their own seed multiplication on-farm; largely through contracting with commercial farmers (Larson and Mbowa 2004). Seed producers get basic and pre-basic seed from various international sources and from their own production. The major complaints seed companies face in sorghum and millet is low quantities of seed demanded by farmers and lack of stable markets. Major buyers of seed from seed companies for sorghum and millet are government and NGOs who only buy in the years when they anticipate a drought (Hellin et al., 2009). Brewing companies buy seed from seed houses after earlier arrangements have been made. Factors affecting the competitiveness of the seed value chain include the enabling environment such as the crop diversification policy, comparative advantage policy, changes in consumer trends, especially urbanization, when consumers may shift to rice, maize and wheat products and price support program (Hamukwala et al., 2010).

Sorghum production and responsiveness to consumer preferences

Breweries demand sorghum as a raw material for clear beer (Larson et al., 2006). This also seems to suggest that initiatives promoting sorghum and millet are focusing more on producing for household food security without a good understanding of true market needs and opportunities. Larson et al. (2006) highlighted low volumes, inconsistent supply and quality problems among other issues, as factors that prevented processors of sorghum from using sorghum sourced from smallholder farmers. This suggests that awareness and understanding of consumer preferences and market demand remains limited among smallholder farmers in the area. This has resulted at times in the inability to successfully market sorghum as well as the inability to take advantage of market opportunities that exist in the sorghum markets. There are several players involved in sorghum processing including millers, beer brewing companies and stock feed manufacturing companies. Small scale millers own grinding mills and process sorghum grain into mealie meal as and when required. In urban centres there are relatively more organized and large-scale actors involved in processing and packaging of mealie meal and stock feed for onward sale to wholesalers and retailers (Musara et al., 2019). However, due to unreliable and low supply of sorghum grain, most stock feed processors shun using the grain as a raw material regardless of its high crude protein content (Musara et al., 2019).

Hamukwala et al. (2010) reported that processing technologies and distribution infrastructure were equally perceived as very challenging by a majority of farming households for sorghum and pearl millet crops. This is a challenge to policy makers and developmental actors alike if these crops are to be grown at a competitive level. There is a need to venture into processing technologies which can enable farmers to add value to the products at farm level. Adequate infrastructure also leaves much to be desired; this is a problem which was also pointed by the seed dealers (Hamukwala et al., 2010).

Smallholder sorghum marketing failures

There are limited channels through which smallholder farmers sell their sorghum produce. Farmers mainly sell sorghum to small scale traders who in turn sell to medium scale traders who eventually sell to large scale traders in Mvurwi, Bindura and Harare (Musara et al., 2019). Small scale local traders sometimes store sorghum and sell it back to farmers during lean periods at higher prices. Large scale traders sell to processors of mealie meal, stock feed and beer. Some farmers sell their sorghum directly to consumers in villages or roadside markets. Contracted farmers sell to contractors with reported cases of side marketing due to lower prices compared to the open markets (Musara et al., 2019). Farmers who produce seed enjoy higher market prices as compared to those who produce grain. However, in most cases, farmers do not produce sorghum seed due to the numerous demands associated with the seed production (Hamukwala et al., 2010).

Government failures

Due to the beer shortages in Zimbabwe, Delta Corporation Private Limited is said to be demanding that wholesalers and beer-selling outlets pay for supplies a day or two before delivery. Delta is said to be arrogant because of its monopoly power. There is need for the issue of monopoly market structure in the alcoholic sub-sector to be addressed by the government. Government policy can also influence industry concentration. Patent laws are an obvious example, as they reward firms with monopoly rights of 20 years for new inventions and 14 years for new designs (Carlton and Perloff, 2005). Trade barriers, tax breaks to small businesses, and merger policy can also influence entry, firm size, and industry concentration.

3. RESEARCH METHODOLOGY

The researchers used a four-case study approach to consider the emerging and market positioning strategies of the Zimbabwe's beer industry in relation to contracts with smallholder small grain farmers in agro-ecological regions IV and V of Zimbabwe.

3.1 Data Collection and Sampling Procedure

The researchers used observations, structured and semi structured questionnaires, interviews, key informants and focus groups to collect our study data. Both probability and non-probability sampling techniques were used to select the study sample. A representative sample was used with a specific sample size per district calculated proportionally as follows: Binga-60, Chiredzi-95, Hwange-72 and Matobo-54, giving a total of 281 farmers. Purposive sampling was used to select districts (Hwange and Matobo) that were not into contract farming. The same was used to select districts (Binga and Chiredzi) who were into contract farming. Secondary data obtained through literature review of policy documents, published articles and reports from development partners were used to compliment the findings. The qualitative data analysis was done using Porter' s five forces analysis.

Statistical package Stata version 16 was used to analyse household data and to present information on vertical coordination mechanisms for smallholder small grain farmers. Descriptive analysis was used where frequency tables were generated and responses cross tabulated with each factor (extension services, distance to market, affiliation to farmers' group, small grain quantity sold, failure to sell, waiting time to sell).

3.2 Research Strategy and Design

The research adopted a case study approach to enable a detailed analysis of the impact of large-scale beer industries on the livelihoods of surrounding communities. Four case studies along the sorghum value chain were used that is Ingwebu breweries, Delta beverages, Tongaat Hulett and Reapers.

3.3 Data Collection Methods

This study used two data sources namely secondary and primary data. Secondary data was obtained through document reviews and primary data was obtained through household interviews, key informant interviews and focus group discussions.

4.RESULTS

4.1 Structure of Brewing Industry in Zimbabwe: Size Distribution of Firms.

The summary of size of brewing industry is shown in table 2 below.

Table 2: Structure of Brewing Industry in Zimbabwe: Size Distribution of Firms

Name of firm	Year Established	# of employees	Total revenue USD	Profit levels over 5 years
Delta corporation	1898	13000	523 million	1.3 million
Ingwebu Breweries	1913	501-1000	10-49 million	1.14 million
Tongaatt Hulett	1850	10126	119.4billion	155.5 billion
Reapers Pvt Ltd	1997	200	2.66 million	0.96 million

Source; Annual Reports, 1980-2020

Delta Corporation Private Limited is Zimbabwe's leading beer brewing firm. Delta beverages was established in 1898 as Zimbabwe's first brewery. The company has over the years expanded to encompass more than just a brewery and today its primary activities are lager and sorghum beer brewing, the bottling of carbonated and non-carbonated soft drinks, supermarket and furniture retailing, tourism and various agro-industrial operations (Delta Corporation Annual report 2020). It is listed on the Zimbabwe Stock Exchange and is one of the top quoted companies in terms of market capitalization. It was first listed on the Stock Exchange in 1946 as Rhodesian Breweries Limited and later changed its name to Delta Corporation Limited in 1978 (Delta Corporation Annual report 2020). The group was established in competition with SAB's Castle Breweries, which was acquired by the Rhodesian Breweries Private Limited in 1952. Following the de-merger of Pelhams, Zimsun (now African Sun) and OK from the group in 2001, the group is now effectively a beverage company with associated businesses.

Ingwebu Breweries is the second leading beer firm in Zimbabwe and it started around 1913 as an idea to provide alternative, healthy alcoholic traditional beer to the then dangerous distillations that harmed the body and made people sick. The business was conceived during the days of the beginning of urban life in Bulawayo. When the first businesses were established, they needed labour. But African people lived in their rural homes and to ensure a readily available labour force, the authorities encouraged the development of a location-Makokoba, deriving from a white man who walked with a bent back (Ingwebu Annual Report 2016). Ingwebu Breweries is a commercialized business entity owned by City of Bulawayo. The entity used to be run by the Bulawayo City Council until 1996, when it was commercialized through a charter as part of City of Bulawayo Commercialized Entities. The operations and management of the enterprise is in terms of the 1996 Charter, which provides for control by a Business Committee made up of councilors appointed by the City Council. Below the business committee is the board of directors who are knowledgeable and skilled in Finance, Marketing, Business Management, Engineering, Human Resources, Law and operations. The board of directors are appointed by the Council on the recommendation of the Business Committee. The Managing Director is responsible for the running of the whole entity and reports to the Board.

Tongaat Hullett is the third major firm associated with sorghum production contracts in Zimbabwe. It has a primary listing on the Johannesburg Stock Exchange dating back to 1952 and a secondary listing on the London Stock Exchange since 1939. The structure of the business in its current state arose from the merger of the Tongaat Group Limited and the Hullett Corporation Limited, and its operations date back to the mid-1800s. Tongaat Hulett has seen the benefit of partnering with key stakeholders to achieve outcomes that represent a "win all". In so doing, these relationships contribute towards the achievement of the business's strategic objectives, while also meeting the objectives of its various stakeholders, including shareholders, governments, private farmers and their representative bodies, communities, employees and people impacted by the company's operations and its development activities. Tongaat Hulett's approach to working with its key stakeholders continues to support its objective of being considered the developmental partner of choice of governments in the SADC regions, in the journey to further growing their agricultural sectors.

Besides the sugar cane plantation run by Tongaat Hullett, the company runs a sorghum out grower project. This out grower scheme has been running for the past four years with an average of 1200 smallholder farmers in the surrounding communal areas (i.e., Chiredzi and Mwenezi) being provided with fully recoverable sorghum input support with an average of RTGS70000 per year (Clemence et al., 2017). Since the inception of the input grower scheme, the smallholder sorghum farmers have grossed more than RTGS1.2 million in sorghum sales revenue, part of which has been invested in other income generating projects like irrigation schemes and construction of community-based projects in health and education (Tongaat Hullett, 2019 Annual Report). The sorghum is used in the manufacture of stock feed which finds its way in the livestock beneficiation value chain in which the local farmers also participate (Clemence et al., 2017).

Reapers Private Limited is a locally owned registered Seed House in Zimbabwe. It started operations in 1997 as a groundnut farming, procurement, processing and marketing company. It has since transformed its operations as an agro-processor of small grains and operates an out-grower scheme for smallholder farmers countrywide. Suffice to note that both Tongaat Hullet Private Limited and Reapers Private Limited are not necessarily "brewing firms" as such, but just like Delta Corporation Limited and Ingwebu Breweries, they are heavily involved in smallholder sorghum production contracts.

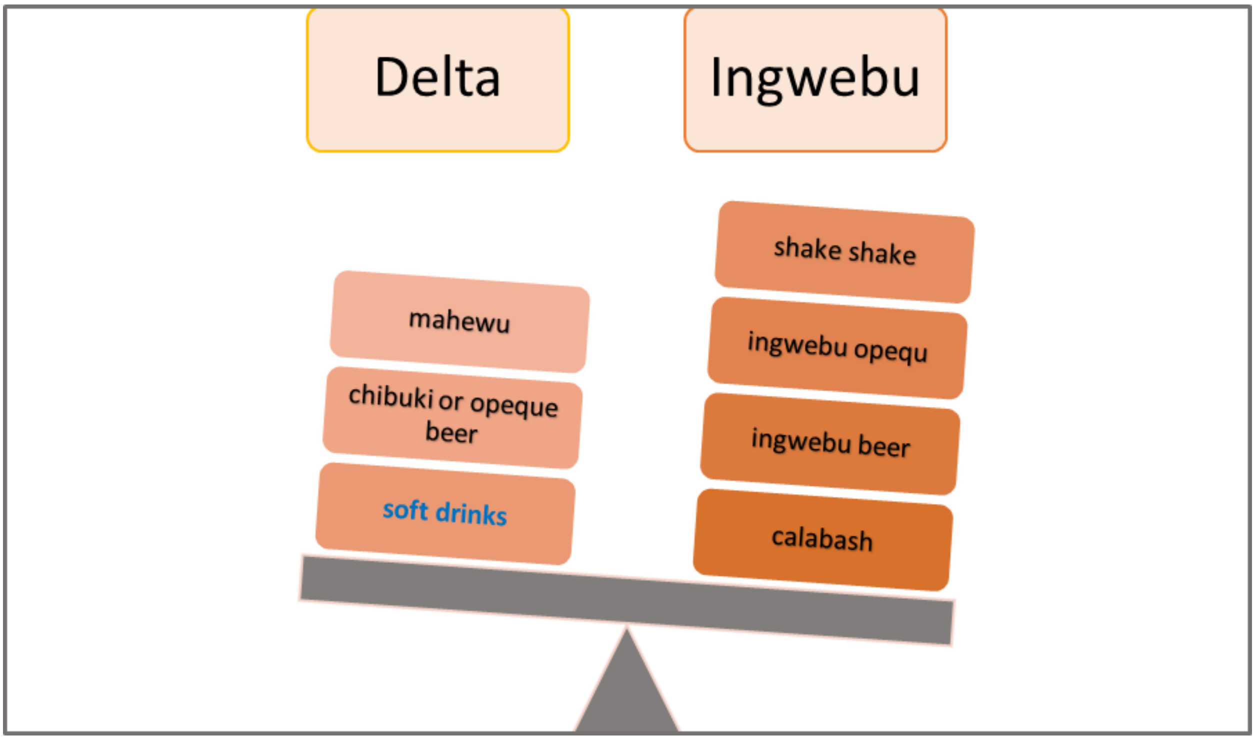
4.2 Market Positioning Strategies in Brewing Industry in Zimbabwe

4.2.1 Product Differentiation Strategies in Brewing Industry

Ingwebu products are available in the Bulawayo Metropolitan, Matabeleland, Midlands, and Harare Metropolitan provinces. In these provinces they are accessible in the wholesale and retail chain at a very reasonable price, one can buy for resell or for consumption. The entity is made up of two business units namely the Brewery and Franchise unit. The business domain spans the production and distribution of Sorghum beer and Mahewu in the region and beyond. The Brewery unit is renowned for brewing top quality sorghum beer and Mahewu, flagship brands being the Calabash which is a two-litre unit presented in a returnable container, Baby Calabash a 1.5litre unit presented in a modern African contour container, Draught beer which is in bulk form dispensed from tanks to the Franchise channel and Mahewu presented in a 500mls unit with foil and cap. The Franchise business holds the singular accolade of being the widest and arguably the best managed retail chain owned by the local authority. It comprises of 45 entertainment and leisure outlets scattered all over the western suburbs of the City of Bulawayo. The unit consist of Tavern's, Beer halls, Bottle stores and Sports bars all designed to bring entertainment, leisure, satisfaction and convenience at the doorsteps of imbibers, entertainment seekers and fun lovers.

Delta is an interactive company hence its concentration is high compared to Ingwebu. Delta's image in advertising its product is high. Delta has wide product range that includes soft drinks, beers, mahewu whilst Ingwebu has limited products in the form of traditional beer and mahewu (Figure 4.1). On innovation Ingwebu has different flavours of Mahewu. Ingwebu sponsors field days to the sorghum farmers, on condition the homestead has a toilet. It becomes a marketing strategy for the company. Every year the AGRITEX does the crop assessment to identify the best crop. Both companies reach out to customers in terms of collecting the grain from the farmers.

Figure 1: Competition between major brewing companies in Zimbabwe



Source**:** Primary data (2021)

There is need for both companies to give discounts/ services to the customers. Ingwebu collects grain from farmers' door steps if they produce 30 tonnes and above. Promotions could be if a farmer sells more than 30 tonnes his/her name could appear in the organization's bill boards. The company could also advertise through influential people like celebrities.

Tongaat Hullett (TH) is an agriculture and agro-processing business, focusing on the complementary feedstocks of sugarcane and maize. Through its sugar and starch operations, TH produces a range of refined carbohydrate products from sugarcane and maize, with many products being interchangeable. The small grain out grower programme by Reapers Private Limited promotes food security and retention of traditional crops which are suited to regions IV and V. Under the out grower programme the company extends seed and agronomy services including fertilizers to selected farmers under a commercial contract. Input costs are recovered at marketing of the produce. This option ensures quality management through seed. Seventy percent of the beneficiaries are women (Reapers annual report 2020). Reapers has a robust business plan that allows farmers to produce groundnuts and other small grains commercially and in return produce is purchased at the fairest prices in Zimbabwe.

4.2.2 Mergers and acquisitions

Delta reportedly snapped up an estimated 441 million shares from Anheusur Busch InBev SA/NV to acquire a controlling stake in Natbrew at an estimated cost of US$12 298 639,32, with a single share going for approximately US$,028. Snapping a controlling stake in Natbrew is part of Delta's long-term strategy to boost its diversified beverages business by making forays into the regional market (Delta annual report, 2020). Natbrew, which markets its products under the Chibuku brand, is the leading opaque beer manufacturer in the country. Merger and acquisition activity has been robust in the beer market during the past few years. The emergence of numerous small and independent craft breweries has boosted the consolidation trend to some point, and, subsequently, the number of merger and acquisition deals. As with all mergers and acquisitions, the idea is that by joining forces the new bigger-and-better company can implement economies of scale and scope, as well as increasing its market share – all resulting in greater profits.

4.3 The Nature and Level of Competition in Zimbabwe's Brewing industry

Zimbabwe's brewing industry comprises four key players namely Delta, Ingwebu, Tongaat Hullets and Reapers. The industry has evolved from a Monopoly/Duopoly in the early 1980s/1990s. when one or two firms were operating or registered on the market. Therefore, the industry is characterized by monopolistic competition with Delta Corporation Private Limited being the major or dominant player in the local beer market. Delta Corporation Limited has a monopoly in the traditional beer market in Zimbabwe with 14 breweries located across the country; brewing and distributing a well-known sorghum beer brand called Chibuku. Other subsidiaries have interests in transport and logistics, barley and sorghum malting, food processing, packaging, retailing wines and spirits, recycling, tin can production and leadership training. The brewing industry or beer market is segmented by region. In Chiredzi, the brewing is basically a duopoly with only two beer brewing firm (Delta, Ingwebu) operating. The same situation of duopoly market structure takes place in Bulawayo.

4.3.1Market Positioning Strategies: Relative Contribution of Contractors to the Market share

The study sample constitutes 55.2% of the sampled households were contract farmers with Delta and Ingwebu companies cited as the contracting companies. The Figure 1 below shows the percentage distribution of the contracting companies in this population, with Delta (39%) and Ingwebu (39%) being the most dominant. Reapers (13%) and Tongaat Hullets (9%) were also found in Chiredzi. About 42% of the sampled households in Binga and Chiredzi districts were contracted by Delta and Ingwebu.

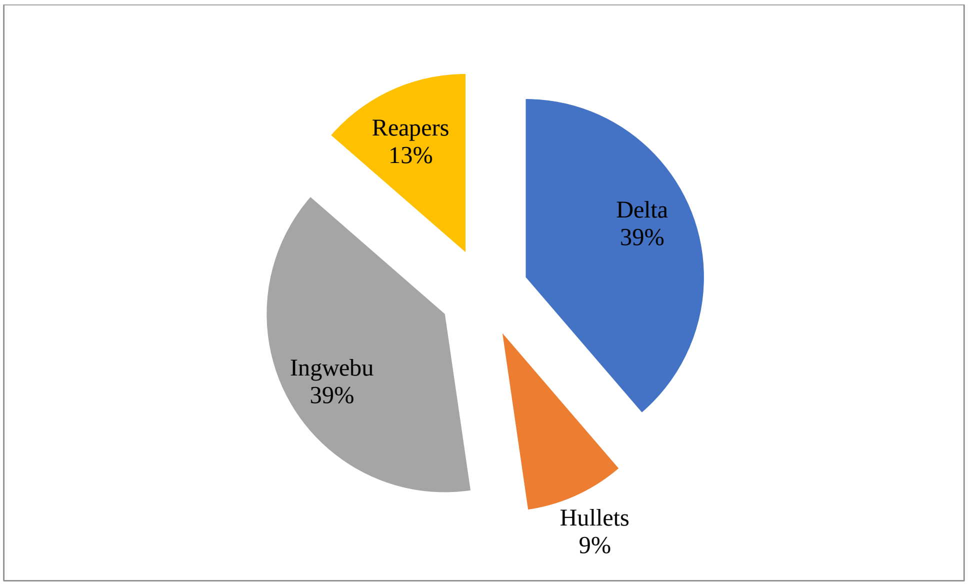


Figure 2 Percentage distribution of contracting companies.

Source**:** Primary data (2021)

Delta Corporation Private Limited is the largest beer and beverages market in Zimbabwe with a 90 percent share of the beer market and an 85 percent share of the soft drinks market (Delta Corporation Annual report, 2020). Beer volume growth has registered higher performance and the market share has increased and continues to surge with the passage of time. This shows that the firms are performing well in the market.

4.4 Contract Farming

Results show that all the contractors were located in Chiredzi (monopolistic market model). Delta and Ingwebu breweries were the most common contractors across the two districts (Binga, Chiredzi) (Duopoly market model). The Figure 2 below shows the percentage distribution of the contracting companies by district where 50% of the farmers in Binga were contracted by Delta and Ingwebu. Similarly, 31.5% of the farmers in Chiredzi were contracted by Delta and Ingwebu. In addition, Reapers had 22.1% of the farmers under contract farming and only 14.7% were contracted by Tongaat Hullets.

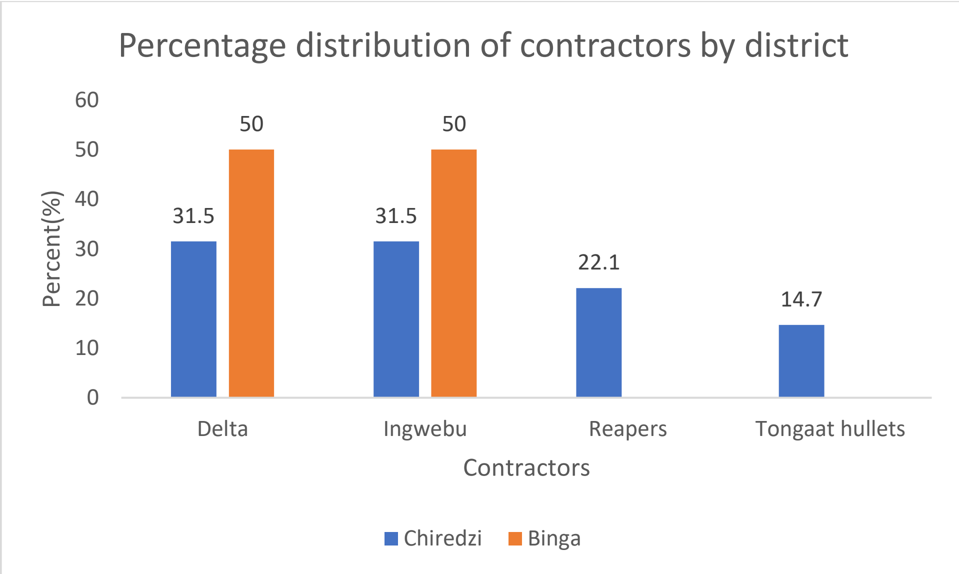


Figure 3 Percentage distribution of contractors by district.

Source: Primary data (2021)

4.4.1 Nature of Contracts: Type and Performance of Contracts Extended to Smallholder Sorghum Farmers

Most of the contracts offered were production contracts (62%) and 25% were on marketing contracts. Majority (63%) of the smallholder small grain farmers were happy with the contractual agreements. A few who indicated that there were not happy with the contractual agreements cited low contract prices (35%) while 28% reported weak bargaining power challenges.

Overall, 51.6% participated in the small grain marketing. Farmers (56%) who were on contract revealed that they allocate above 3 hectares to contract farming while 40% indicated 2-3 ha, however there were variations on the land allocated to contract farming with Chiredzi having the highest. In terms of profitability, most sampled households (58%) reported moderate profitability rate. However, a considerable number indicated that contractual documents were not availed to all farmers, a sign of lack of transparency or nature of information asymmetry characterizing the brewing industry in Zimbabwe. About 20% reported that the contractual documents were explained to all members before signing and 89% revealed that the contracts were written in unfamiliar language and they would prefer local language. Failure to share contract documents with farmers and or use of language that was not familiar with farmers certainly exposes the brewing industry's unfair tactics in dealing with poor smallholder sorghum farmers thus violating basic contractual obligations.

4.5 Vertical Integration Strategies

Within the brewery industry, firms practice some form of vertical coordination by harmonizing adjacent production, processing, distribution, and marketing processes in sorghum value chain.

In fact, the extent of vertical coordination ranges along a continuum from a spot market, contracting, strategic alliance, formal cooperation to full vertical integration. A common strategy of breweries is to conclude so-called vertical agreements with bars or pubs. The tied pubs differ on several dimensions, including the ownership of the pub, the authority to set the retail price, and the existence of fixed-rental fees. On the Zimbabwean beer market, there exist two important forms of contractual forms: loan agreements and lease or sublease agreements (Clemence et al., 2017). Both vertical agreements contain an exclusive-purchasing contract or a non-complete obligation, forcing the bars to serve exclusively the company's beer.

4.5.1 Product Marketing Strategies

In order to gain cost advantages and boosting the level of operations for its Zimbabwean unit Delta Corporation, SABMiller invested sixteen million dollars in the operations (Clemence et al., 2017). This effectively doubles its Chibuku product availability both in the local market and beyond. Due to intense competition in Zimbabwe, Delta Corporation under SABMillers decided to diversify and invest their business in other African countries such as Ghana, Swaziland and Tanzania. Pilot schemes have been carried out and Chibuku production in these countries is now in full swing (Clemence et al., 2017). To remain competitive and to gain market share and higher profits, Delta Corporation a unit of SABMiller, the manufacturer of Chibuku opaque beer brand has decided to take its Chibuku brand into several more African countries. There was a gap in the beer market in Sub-Saharan Africa as most breweries are concentrating on the top end of the market leaving a sizeable gap at the bottom end of the market, and due to pressure in the local industry, brewing firms are focusing on these market gaps in the region that's taking competition abroad. Ingwebu breweries ran short of packaging materials, as it failed to secure a reliable supplier of TetraPak. It has since relied on importing these packs from Conipak in Zambia and Malawi (Beer Industry Analysis, 2008). This has resulted in a cut in supply of the highly demanded Shake Shake. Delta noted this gap and took advantage to introduce its PET bottled beer in Bulawayo.

4.5.2 Procurement strategies

Ingwebu and Delta beverages all buy the improved sorghum seed from seed houses and supply farmers on credit basis. The seed houses like Seed Company, Pannar and Agri Seed supply as they are assured of market for their product. There is need to consolidate data base for farmers who will in turn be loyal to the concerned companies. There is a strong social system as companies supply the packaging material, but the transport cost is met by the farmers.

4.6 Performance of Brewing Industry in Zimbabwe

The performance of the brewing industry is shown in figure 4.4 using Porter's five forces as shown below:

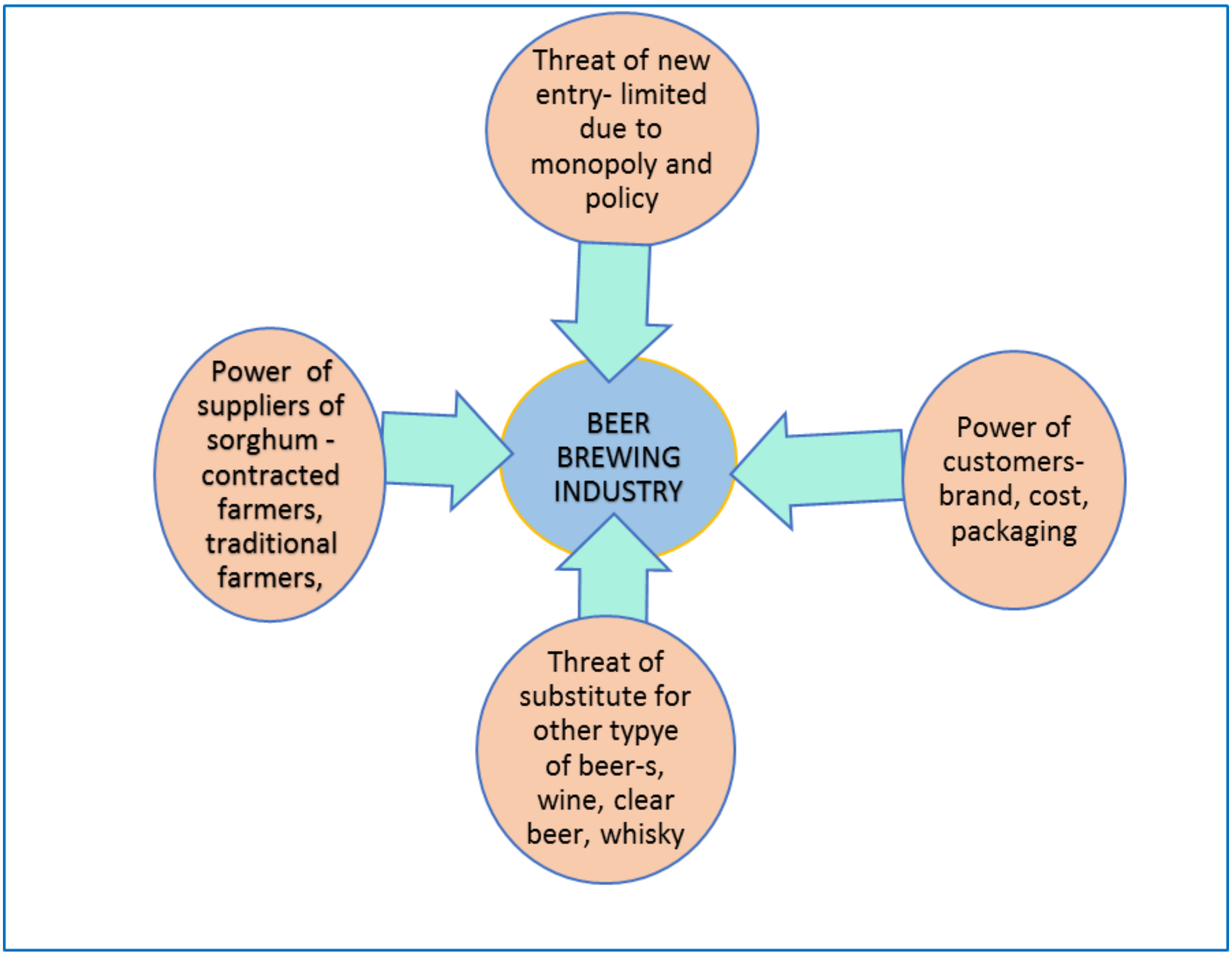


Figure 4. Performance of Brewing industries of Zimbabwe using Porter's five forces

Source**:** Primary data (2021)

4.6.1 Threats of new entrants

Big brewing companies like Delta Corporation Private Limited has been found to practice exclusionary behaviour, that keeps out small companies like Ingwebu Breweries Private Limited or makes it more likely that they will sell to a parent organization discriminatory conduct like slotting (where manufacturers pay fees to obtain retailer patronage) against smaller players in the market to keep them out or push them to sell to larger companies. These issues are limiting new entrants. If these problems are alleviated, it would allow entrepreneurs, small businesses, and new entrants to compete on a level playing field with larger market participants. Expanding to a number of provinces is difficult as it implies additional and distribution costs.

The market is open but the beer product is regulated by government of Zimbabwe. It is no free for all business as staple grains are involved as this affect food and nutrition security for the nation. Special permits have to be granted for firms to start operating in the beer industry. The beer plant is inspected by the Ministry of Health, Ministry of Industry and Commerce, City council, Environment Management Authority (EMA), Agriculture Marketing Authority (AMA). These are barriers to entry. Capital investment and regulation costs are high to scare new entrants.

Delta Corporation Private Limited has a monopoly in the traditional beer market in Zimbabwe with 14 breweries located across the country hence put pressure on new entrants (Swinnen, 2011). It markets international and locally-produced beverages in Zimbabwe. Furthermore, Delta Corporation Private

Limited operates in four segments that include non-alcoholic beverages, sparkling beverages, lager beers and traditional beers. As new firms enter into a sorghum brewing industry, the entire industry's potential for sustained profits is reduced due to the increased amount of competition in that industry. Giant companies such as Delta reduce the threat of entry by taking advantage of economies of scale, product differentiation, capital requirements, access to distribution channels, and government regulations. These strategies act as barriers that prevent new firms from entering into an industry. When these factors reduce the threat of entry, the profit potential for the industry increases.

4.6.2 Threats of new substitutes

It seems that liquor sales are rising at about the same rate as beer, which is much lower than the increase in wine consumption. Consumers are not inflicted with a cost of switching between types of alcohol. All of these factors increase the threat of substitute goods for the beer industry, which has a negative effect on industry profits. Amahewu are taking same inputs such as land and small grains and these are same inputs used to produce beer thus negatively affecting revenue. The local brands are more expensive as compared to imports negatively affecting local brands.

4.6.3 Bargaining power of customers

The main buyers of beer in the brewing industry are distributors. Bargaining power of buyers increase when: there are few distributors in the market; the distribution industry is growing faster than the manufacturer's industry; and when new competition cannot emerge (Beer Industry Analysis, 2008). The distributors are the ones with all the connections to the consumers and retailers, thus the distributor control the prices based on what profit margins they require. The distributors are consolidating and increasing in power. Also, distributors are limiting new competition. So, overall, the Porter's force of Buyer Power is a negative for the Beer Brewing Industry.

Delta Corporation Private Limited is a relatively big company compared to Ingwebu Breweries Private Limited. Its coverage is national and advertises in national television, radios as it can afford advertisement on national air waves. Furthermore, it promotes national road shows. Its social responsibility is vast compared to smaller companies. It pays school fees to disadvantaged children and sponsors soccer tournaments. Again, contracts are made by lawyers of these big companies and are not properly explained to smallholder small grain farmers and there is no negotiation on pricing.

4.6.4 Bargaining power of suppliers

Suppliers have little bargaining power in the industry, which works in beer brewers' favor. Supplier concentration is low, which can possibly increase the sustainable profits. As far as supplier substitutes, the ingredients (hops, barley, corn, yeast) that go into the brewing of beer cannot be replaced. The above ingredients are necessary for the beer production. The beer brewing industry relies heavily on supplier input; hence the suppliers are in constant need to keep this industry afloat (Beer Industry Analysis, 2008). There is a threat of forward integration; the larger brewing companies produce enough capital to possibly buy plots of land to grow their own sorghum.

Delta forwards payments to suppliers in terms of input support, hence guaranteed purchasing of product compared to small companies. Again, there is collusion of buyers as they combine forces on pricing to disadvantage the farmer. Farmers are just price takers. Prices are meant for farmers to break even not to be rich. Tongaat Hullet has of late withdrawn from contracting sorghum farmers so that it produces its own sorghum thereby taking advantage of the whole value chain. Such a move towards adoption of complete or full vertical integration by Tongaat Hullet is designed to exclude the smallholder farmer out of the lucrative sorghum value chain.

4.6.5 Intensity of Rivalry

Rivalry is the extent to which companies compete with one another for customers. Rivalry can be price-based or non-price-based. Rivalry is measured by the concentration level of the industry; the more concentrated the industry, the less rivalry (Chidoko, 2015). Other factors that increase rivalry are large capital asset requirements and high switching costs. The beer industry does not have evidence of price wars (Chidoko, 2015). Beer prices have increased, but that is mostly due to inflation. The increased prices are industry wide and not company specific. Within the beer industry there are no switching costs. The consumer can purchase whichever beer he/she favors. However, consumers are very brand loyal. Beer companies spend millions of dollars annually on advertising. This industry is experiencing significant concentration effects, which decreases rivalry. Also, there are significant barriers to exit, which increases rivalry.

There are few players with a large share of market and rivalry is limited to customer preferences. Delta uses economies of scale to flood the market at the expense of small companies like Ingwebu. This is evidenced by the level of pollution created by empty scuds and super plastic containers versus that of Ingwebu. There is poor arbitration performed by Agricultural Marketing Authority (AMA) and other governmental organizations hence leaving farmers exposed. Delta and Ingwebu act as pure capitalists thus resulting in increased intensity of rivalry.

Ingwebu and Delta are major competitors for sorghum grain. However, there are companies such as Reapers and Tongaat Hullett that also buy small grain from farmers in Chiredzi. All the four companies converge in Chiredzi to collect sorghum grain. Since Tongaat Hullett and Delta beverages have plants in Chiredzi, companies such as Ingwebu could buy shares from the two companies and avoid transport costs to Chiredzi. The brewing companies could buy tractors and loan these to farmers for effective land preparation leading to high yields of sorghum thereby benefiting both farmer and buyer.

There is need to consider import parity. For example, suppose there is no sorghum in the country how much would be cost of importing. Company and farmers agree on the price per tonne at harvest time. Each farmer stands on his own. Bags are sampled to check on quality as well as weight /bag. They negotiate till they come to an agreement. They consider market price during negotiations. Mode of payment is considered eg. RTGS, Ecocash, USD, RANDS although farmers prefer United States dollars. Companies could sponsor events and buy “Mahewu” for participants or avail prices for high achievers in small grain production.

5 Market Challenges

Majority of respondents from FGD (Figure 3) cited low producer prices as a market challenge followed by poor road network. The buyers cited poor road network as the major market challenge. Key informants indicated that seed quality and variety choices is limited. Agronomic management attention is directed towards cash crops such as maize and wheat. There is limited equipment and machinery in harvesting, threshing, winnowing and packaging. Maize has combine-harvesters but small grain such as sorghum and pearl millet does not have.

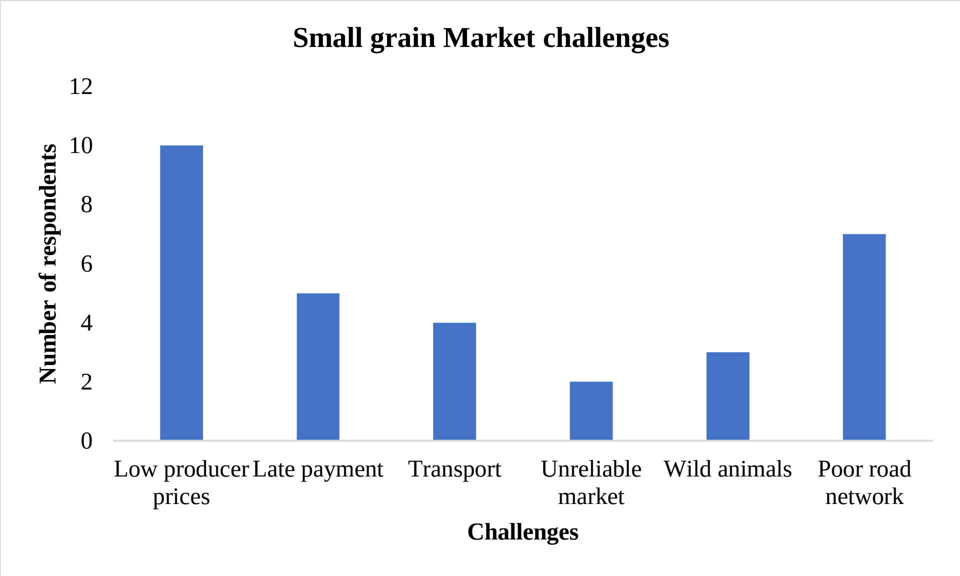


Figure 3 Market challenges distributions.

Source: Primary data (2021)

5.1 Challenges faced by Contract Farmers Versus Brewing Companies

Challenges faced by both contract farmers and brewing companies are shown in table 4 below.

Table 4: Challenges faced by Contract Farmers Versus Brewing Companies

Challenges faced by contract farmers	Challenges faced by contracting companies
Resource limitation	Lower volume of grain
Limited harvesting & processing equipment	Poor road infrastructure
Late supply of inputs	Poor quality grain
Late collection of grain	Side marketing
Distance to market	Double contracting by farmers
	Default on loan repayment

Source: Primary data (2021)

Farmers have been faced with resource limitation given that land holdings in Binga are relatively small. There are no harvesting and processing equipment for small grains resulting in labour constraints. Furthermore, company defaults through late supply of inputs, late collection of grain, late payment of grain. Ingwebu is satisfied with quality but not so with volumes. The Zimbabwe grain is said to have stones because from harvesting, grain is put on the ground, this also happens when winnowing. Farmers are discontent in doing business with contracting companies. This has resulted in some farmers defaulting the contracts arrangements. Some farmers have defaulted on loan repayment due to failure to produce enough grain to offset the loan from contractors. Side marketing has been a challenge as farmers sell grain to other individuals who have lucrative prices at the expense of contractual agreements. Currency instability has been a challenge.

6 POLICY IMPLICATIONS FOR UPGRADING SORGHUM VALUE CHAIN

Bottlenecks in brewing industry include dictation of prices by contract markets, breach of contracts by both farmers and contractors. With effective management, contract farming can be a means to develop markets and bring about the transfer of technical skills in a way that is profitable for both the contractor

and the farmer. Government needs to extend incentives to brewing industry such as fairness in contract design, reduced tax benefits and special economic zones. The study found that small grain yields were high among farmers under contract farming compared those not under contract. Therefore, effort should be directed towards increasing the number of smallholder small grain farmers under contract agreements. This measure will translate to the total intensification in production of small grains in semi-arid regions.
Promote economies of size in smallholder sorghum production either through cooperatives or product comingling to achieve output and quality levels required by contractors. Adoption of smart agricultural technologies in the form of improved small grain seed varieties and conservation agriculture should be encouraged or a pre-condition to participate in small grain production contracts. There is need for government to promote technology-based machinery through provision of combine harvesters during harvesting and winnowers when processing grain so as to quicken the process as well as promoting good quality grain. Good quality grain will enhance the performance of contracts as both contractors and farmers will be happy thereby promoting viability of the value chain.
The value chain should be market driven. The role of government in arbitration should be strengthened to allow all parties involved in the value chain to benefit. The key factors influencing market participation include distance to markets, access to credit, affiliation to farmers' groups and frequency of extension visits in the regions. These factors are important aspects in the enrichment of vertical coordination, which are critical in the promotion of widespread adoption and production of small grains in low rainfall areas in the face of increasing menaces of climate change. Furthermore, effort should be focused on improving and strengthening small grain market delivery systems such as upgrading road networks and establishing collection point facilities in remote areas to reduce transportation costs caused by long distance to the markets. In Zimbabwe producer prices are announced at harvesting time. There is need for pre-planting pricing policy to be encouraged as it offers farmers viable/profitable small grain production as opposed to post harvest pricing.

7. CONCLUSIONS

There are few players in the beer industry with large share of market and rivalry limited to customer preferences. Industry is characterized by monopolistic competition in which Delta uses economies of scale to flood the market at the expense of small companies like Ingwebu. Capital investment and regulation costs high to scare new entrants. On market position strategies the industry uses product differentiation where Ingwebu Breweries produces top quality sorghum beer and different flavours for mahewu whilst Delta company has wide product range such as soft drinks, beers and mahewu. Furthermore, merger and acquisition activity has been robust with Delta company with estimated 441 million shares with Natbrew company to increase economies of scale. Challenges faced by contracting farmers include late payment by Grain Marketing Board, late supply of inputs by contracting companies, resource limitation and limited processing equipment. There is poor arbitration performed by AMA leaving small grain farmers exposed to capitalists. Farmers are discontent in doing business with contracting companies. This has resulted in some farmers defaulting the contracts arrangements. Distribution to the rural and peri-urban markets are affected by the poor road infrastructure which posed challenges during the rainy season. From the whole industry's performance, it has been seen that future prospects of beer industry of Zimbabwe are bright. There is need to lower entry barriers and promote competition and product differentiation among brewing firms.

8. RECOMMENDATIONS

There is need for government to reduce capital investment and regulation costs in the beer industry so as to encourage new entrants. The policy should encourage the production of high-grade beer products and limit small-scale and low-level beer production in order to increase market share thereby improving beer industry market concentration. Plastic pollution by Delta corporation is rampant country wide. Efforts to get biodegradable packaging material is recommended. Government could explore input subsidies to encourage adoption of improved sorghum seed varieties. It is also important to promote contract farming through organizing farmers into cooperatives or associations. This will also assist with group marketing of produce. Furthermore, Ingwebu breweries could engage farmers that are close to the plant like Matobo and Hwange to reduce transport costs thereby benefit farmers. The government and its partners to improve on road network.

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