Market structure, conduct and performances of some selected Large and Medium Scale Food Manufacturing Companies

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Statement of Certification

This is to certify that Ato Yifru Tafesse has carried out his research work on the topic entitled **Market structure, conduct and performance of some selected Large and Medium Scale Food Manufacturing Companies.**

The work is original in nature and is suitable for submission for the award of Masters Degree in Business Administration (MBA).

Advisor: Assistant Professor Rakesh Belwal

Date: 10/08/07

Statement of Declaration

I, Yifru Tafesse hereby declare that this study; **Market structure, conduct and performance of some selected Large and Medium Scale Food Manufacturing Companies** is my own work. I have carried out the present study independently with the guidance and support of the research advisor, Assistant Professor Rakesh Belwal. The study has not been submitted for award of any Degree or Diploma Program in this or any other Institution. It is in partial fulfillment to the requirement of the program Masters Degree in Business Administration (MBA).

Yifru Tafesse Bekele

Date: 10/08/07

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Abstract

The objective of this project work is to explain the characteristics of selected pasta, macaroni and biscuits producing firms in terms of the industrial organization model of structure-conduct-performance. The finding reveals that the market is highly concentrated. The concentration of pasta and macaroni producing firms as measured by CR3 of i.e. three of the firms producing pasta and macaroni - Dire Dawa Food Complex, Kaliti Foods SC, and Kokeb Flour and Pasta Factory have been dominating the market from 2002/03 to 2005/06 with a concentration ratio of 76% to 46% respectively. As the concentration ratio dropped from 76% to 46% due to new entrants so did the performances to a certain extent. The combined performances of these three firms as measured in terms of their operating profits and return on investment dropped from 7.75% to 0.19% and from 7.10% to 0.14% respectively in the period under review. The return on invest was lower than the bank interest rate which proves the poor performances of these firms.

Market entry in terms of capital requirement and access to quality wheat supply in the pasta and macaroni business is higher than that of biscuits investment. That is why the number of existing firms operating in the biscuits market are fourteen, while that of pasta and macaroni markets are eight.

Like that of the pasta and macaroni producing firms, the biscuits market is characterized by high degree of concentration. The concentration ratio (CR4) of

the four firms that was 53% in 2002/03 grew to 91% in 2005/06. Two of the firms namely NAS Foods and 2Brother had 85% of the market share. NAS Foods alone had 55% of the market in 2005/06, followed by 30% of 2Brothers. Although the biscuits market is somehow concentrated, the market leader or dominant firm does not charge higher prices at the retail level as that of Pasta and Macaroni sub-sector. At the wholesalers level however, firms charge different prices with a range of Birr 2 to Birr 4 per carton.

The overall average capacity utilization of the five firms covered in this study was 65% in 2006. Their capacity utilization in 2006 declined mainly because of expansions made by Dire Dawa Food Complex on its pasta and macaroni lines from 7272 tons and 7272 tons to 16059 tons and 18786 tons per year respectively, and that of 2Brother's additional biscuits line with a capacity of 6000 tons per year.

However the capacity utilization of individual firms vary significantly. Dire Dawa Food Complex that contributes 67% (34845 tons) of the production capacity of the three firms has contributed 68% (22956 Tons) of the total products produced in 2005/06. In terms of capacity utilization by product, pasta had higher utilization rate (69%) than the rest of products. Dire Dawa Food Complex, the market leader in the sector, had 70% capability utilization for pasta (Spaghetti) product, followed by Kaliti Food SC at 69%. Kokeb and Kaliti Foods had relatively better capacity utilization in 2006 although their combined capacity was much lower than that of Dire Dawa Food Complex.

The average capacity utilization rate of the four biscuits producing firms in 2006 was the lowest in the sector i.e. only 47%. This below average performances were attributed to the poor performances of the two firms, namely Dire Dawa Food Complex (34%) and Kaliti Food Complex (3%). NAS Foods which leads the biscuits industry had a capacity utilization of 97% followed by 2Brother, a challenger in the industry, by 67%.

The evaluation of the five firms with the application of the structural-conduct-performance model of industrial organization reveals the following key findings:

- The Ethiopian food processing firms of pasta, macaroni and biscuits are highly concentrated and mainly dominated by the two major firms, Dire Dawa Food Complex and Kaliti Foods for Pasta and Macaroni Products with a combined average market share of 55% from 2002/03-2005/06; and NAS Foods and 2Brothers in the case of biscuits market with a combined average market share of 85% in 2005/06.
- Competition among the biscuits firms is more intensive than the macaroni and pasta markets due to the larger number of firms, and low level of product differentiation although attempts are made to differentiate through branding and advertised. However, there is a tendency where a dominant firms are emerging in each case, followed by infringe firms that are competing at low level.
- Market entry to pasta and macaroni manufacturing is more difficult than biscuits production in terms of capital requirements and lack of access to supply of quality wheat (or high cost of imported Durum wheat).

- Firms are not integrated be it is forward, backward or horizontal. Lack of back ward integration has made firms vulnerable to lack of continuous supply of raw materials that constitutes about 55% of the cost of production for biscuits and 75% for pasta and macaroni production.
- Prices are not determined in consultation among rivals, no collusion. But in the case of biscuits producing firms, NAS Foods, the market leader, sets its wholesale prices higher than its competitors. At the retail level all the prices biscuits of same sizes have uniformity. In the case of pasta and macaroni market, Dire Dawa Food Complex, the market leader, Charges higher than its rivals due to its brand preference among consumers.
- The profitability of firms measured in terms of operating margin except for NAS Foods and Kokeb Flour and Pasta Factory that have continuous growths reveals a discontinuous of growth of profits.
- The five firms had an average capacity utilization rate of 65%in 2006. The three major reasons, besides expansions of production capacity of Dire Dawa Food Complex and 2Brothers in 2006, for the poor performances these firms were:
    - Shortages of working capital has been ranked as the first reason for not working at full capacity
    - In inadequate supply of raw materials and inputs on time due to financial constraint.
    - Lack of demand for their products and fierce competition has been the 3rd reasons for poor capacity utilization mainly for the biscuits producers of government owned companies.

CHAPTER ONE

Introduction

1.1 Statement of the Problem

Many Large and Medium Enterprises in Ethiopia that are not fully utilizing their capacities lack productivity and competitiveness. It is obvious that at least in the case of industries where productivities are not only low but also declining, competition even in domestic market, would be relatively very difficult (Ethiopian Economic Association, 2005, p.54). In a study made by the Central Statistical Agency (CSA) on these firms the major that accounted over 55% for not working at full capacity during 2004/05 were absence of market demand and shortages of supply of raw materials. The Manufacturing and Processing Food and Beverage Firms were not the exceptions. Out of the 345 food and beverage processing firms, 51.9% or 179 of them stated absence of market demand as the first reason for not working at full capacity. Pasta, macaroni and biscuits producing firms are also suffering from lack of competitiveness and productivity. Lack of demand, of both domestic and foreign, for locally produced goods, led manufacturing industries to operate below full production potential (Ethiopian Economic Association, 2005:p.55). It is not surprising to note these reasons in many firms in the industry. The important question that one has to raise should be why the performances of these firms become so poor. What could be the reasons? Is it because of competition? Lack of working capital? Low level of technology? Could it be quality of the products, packaging, price, lack of proper marketing efforts etc?

It is obvious that many Ethiopian firms, being in their low stages of market development, lack market orientation and competitiveness. In general, low and declining productivity induce further deterioration in efficiency, hence competitiveness (Ethiopian Economic Association: 2005:p.54). The food processors are characterized by inefficiencies and low level of productivity thus limiting consumer choices. Kohl and Uhl (1980:pp.102-103) stated that the food processors experience problems and face challenges first in processing which includes inability to operate efficiently at full capacity all year round, and the increasing labor cost; second problems of buying operations which includes supply problems in quality and desired volume of production by farmers, and third problems of selling strategies which includes choosing between alternative methods of selling finished products.

The central question of this project was therefore to identify and analyze the reasons ***why large and medium scale manufacturing firms in the selected food processing firms particularly pasta, macaroni and biscuits producers were characterized by low level of performances and lack of competitiveness i.e. under-capacity, low profitability and productivity through market structure, conduct and performance model of analysis.***

1.2 Objectives of the Study

The main objective of this research project was to address to the problems raised above with details of justifications. Specifically the objectives of this research were to:

- Understand and diagnose the sales performances, capacity utilizations and profitability of selected Food processing firms
- Identify the relationship and examine the characteristics of these firms in terms of their structure, conducts and performances and identify the major problems that affect their performances.
- Shade some light to the study of marketing in the manufactured food sectors in Ethiopia that will help to introduce modern marketing system

1.3 Significance of the Study

This paper addressed the factors that affect marketing of processed foods in some selected food processing companies. The study indicates the characteristics of the pasta, macaroni and biscuits processing firms in terms of their market structure, conducts and performances. In addition to indicating possible recommendations for solutions and pinpointing the problems of these companies, the research project will contribute some valuable inputs for managers and board of directors, academicians, industries in the field, etc to have additional inputs in the existing stock of marketing knowledge.

1.4 Scope and Delimitation of the Study

This project, given the limited time allocated and budget constraints, did not cover the study of all food processing firms. It could not also cover such food processing plants like flours mill, meat, fish, poultry, fruits, beverages and vegetables. The study was limited to such food processing firms as pasts and macaroni, and biscuits. These firms were NAS Foods, Kokeb Flour and Pasta Factory, Kaliti Food, Dire Dawa Foods, and 2Brothers.

1.5 Research Design, Approach and Methodology

This research is a descriptive research that covered the analysis of five food processing firms using the industrial organization approach of market analysis This approach asserts that market performance is determined by the structure of an industry and conducts of firms, and it was adopted to understand the characteristics of the firms under study. The research used both primary and secondary data collections methods.

Sampling Technique

Judgmental sampling techniques were adopted to choose the five firms and fifty consumers in a private college were chosen just conveniently to complete brand preferences of pasta, macaroni and biscuits.

A. **Primary Data:** Questionnaires and personal interviews were used as the main tools of primary data collections. Management staffs and supervisor of the selected food processing companies' filled questionnaires and held interviewed and discussions with them to

understand their performances & current problems in their respective firms.

B. **Secondary Data**: Different literatures and documents in the food sectors, data from Central Statistical Agency, audit reports, and company reports were used to build the basis of this project.

1.6 Data Analysis & Interpretation

The data collected from the questionnaire and interviews were tabulated. Percentiles and averages methods of data analysis were employed using spreadsheet to analysis and interpret the data collected.

1.7 Organization of the Research

This research paper is organized into five chapters. The first chapter deals with the introduction part of the research paper in which statement of the problems, methods used, objective and significance of the study are incorporated. The second chapter covers the characteristics of the food markets that highlight the market structure, conducts and performances of the food market. The third chapter reviews the Performances of the Ethiopian Industrial Sector, its characteristics and contribution in the economy. Analysis of the food processing firms in terms of their market structure, conduct and performances are discussed in the fourth chapter. Conclusions and Recommendation parts of the study are dealt at the fifth part of this project.

CHAPTER TWO

Characteristics of the Food Market:

Conceptual Framework

2.1 Introduction

Food marketing system involves all activities involved in the flows of food products and services right from the point of production to the point of consumption. The marketing of agricultural products encompasses a complex network of activities that involves a number of intermediaries such as middlemen, facilitating organizations, consumers, food processors, regulators, etc. The flows of processed food products from the point of production to that of consumptions demands a series of actions and events that take places in some sequence, and some form of coordination of this series of events and activities in some orderly fashion.

2.2 Approaches to understating the Food Markets

To examine and characterize food marketing systems, one has to understand each marketing activity involved in the flows of the food products. There are many ways to understand the food markets. Rosson conceives the agricultural and food marketing systems as consisting of four sub-systems ; the production sub-system which includes farmers, herders, etc; the distribution sub-system that includes food processors, traders, wholesalers , retailers; the regulators sub-system such as central, regional and local governments, and the consumptions sub-systems which includes the final consumers (Quoted by FOA, 1997). According to Kohl and Uhl (2002; pp 22-32) there are three approaches to understand and study the food marketing

processes. These are the functional approach, the institutional approach, and the behavioral systems approach.

The Functional approach explains the food marketing process where the specialized functions are accomplished by the food marketing systems. The major functions include the exchange functions (buying and selling), physical functions (processing, storage, and transportation), and facilitating functions (financing, risk taking, standardization, and market intelligence). This approach is helpful in evaluating marketing cost (cost comparisons are meaningful only when they are related to the job done), understanding the difference in marketing costs of various commodities, and improving the performance of the marketing machinery.

The Institutional approach focuses on understanding various agencies and business structures that perform the marketing processes. It considers the nature and characteristics of various middlemen and related agencies in the marketing activities of the food market. Such middlemen include merchant middlemen (retailers and wholesalers), agent middlemen (brokers and commission men), speculative middlemen, processors and manufacturers, and facilitative organizations.

The Behavioral approach attempts to examine the food marketing system from the systems behavior perspective and understand changes in the organization of the marketing processes. The input-output systems, the power system, and the behavioral systems for adapting to internal and external changes are the major components of this approach in understanding the marketing of food products.

2.3 Market Structure, Conduct and Performance of the Food Industry

2.3.1 The Concept of Market Structure, Conduct and Performance

Every industry or market has its own set of characteristics that determine its competitiveness and performance in business. The concept of structure-conduct-performance emerged in 1950s and 1960s under the discipline of industrial organization grounded in economics (Jacobson, 1996). The tenet of the structure-conduct-performance approach to market analysis is that given certain basic exogenous conditions, the structure of an industry determines the conduct of the participants (buyers and sellers) which in turn influences its performance. The full model of this approach is based on the proposition that structure, conduct and performances are linked in a deterministic way, i.e. an industry's basic conditions determine, its structure, which in turn determine conduct, and conduct determines performances (Stead: 1996, p. 6).

This approach of market analysis has been further developed into a new body of theory called the "New Industrial Economics" that include the dynamic nature of the interaction of the elements (Stead: 1996, p6). A firm's conduct or strategy is very often not wholly determined by structure; firms have a wide degree of discretion over their conduct, and decisions they make affect the industry and indeed the basic conditions of an industry. Koch, as quoted by Jacobsson and Bernadette (1996, p.48) sees market structure as the relatively permanent strategic element that influences and are influenced by the conduct and performances of firms in the industry in which it operates.

Research suggests that both the environment and the firm's characteristics play a role in determining the firm's specific level of profitability which proves that that there is likely a reciprocal relationship between the environment and the firm's strategy, thereby affecting the firm's performance (Hitt: 2003, p 19). Thus, the industry environment which comprises structure, conduct, and performance has a direct impact on the performances of a firm (Jain, p 75).

Food processing or manufacturing plants are involved in canning, freezing, or dehydrating farm products or combining different products to produce something new food items so as to make them more convenient products. They are primarily responsible for adding form utility to farm products. According to the theory of industrial organization, the performance of an industry is determined by the structure of the industry and market conducts of firms (Kohls and Uhl, 2002, pp. 34-35).

2.3.2 Market Structure

Many authors view market structure from different perspectives. For example Kinsey (1988, pp. 40-42) argues that the market structures of developing countries have dual characteristics. Dualism is used to describe the distinction between the small rich urban market of property owners, government officers, tradesmen, shoppers and other affluent individuals and masses of rural poor. The former demands high quality goods and luxurious processed foods, labor saving devices etc. The large rural market provides demand for lower quality, more essential goods. The market structure of even the urban centers differs between the affluent sector and the inhabitants of the shams and shanty towns.

Acharya and Agarwal (1999, p.15) view market structure again from the perspectives of the theory of industrial organization. They explain the concept of market structure from the views points of organizational characteristics of a market which influence the nature of competition and pricing, and affect the conduct of business firms. Market structure affects the behaviors and performances of food marketing firms.

Porter (1980, pp 4- 7) views structural analysis of an industry from the perspectives of the five forces that shape industry competition and then determine its profitability. These five forces are suppliers (bargaining power of suppliers), buyers (bargaining power of buyers), potential entrants (threats of new entrants), industry competitors (rivalry among existing firms), and substitutes (threats of substitute products or servicers). The structural features of an industry determine the strength of competitive forces and its profitability. The focus of industry structure is therefore on identifying the basic, underlying characteristics of an industry rooted in its economics and technology that shape the arena in which competitive strategy must be set. Firms in an industry will have their capacity in dealing with the industry structure and perform well in the market.

The position of a firm in a market depends on the characteristics of the industry in which it operates. Market structure includes number and size of firms (market concentration), degree of product differentiation, and barrier to entry in the industry.

2.3.2.1 Market Concentration

Market concentration in an industry refers to the sales made by the largest firm (Kohl and Uhl, 2002, 173). It is the measure is a measure of intensity of competition or control that provides information about relative market size of firms in a specific market through market share (Jacobson 1996, p 53). There are about four methods of statistical measures of market concentrations in an industry. These are the number of firms, the Lorenz Curve and Gini Coefficient, the Concentration ratio, and the H Index methods (Greer, 1992, pp 171 – 178).

Kohl and Uhl (2002, p 173) conclude that there are higher level of market concentrations in food processing, wholesaling and retailing, than farming. In general, the higher the level of market concentration, the less perfectly competitive the market is, and the higher the performance of the firm. In general there is a positive association between profitability and market concentration over a wide variety of measures and circumstances (Greer, 2992, p. 600).

The Number and Size of Firms is the most obvious structural measure of market power in the market. In this case the types of competition determine the degree of concentration of firms in an industry. A pure competition has many sellers, while monopoly has only one firm. In these two extremes we have the oligopoly and monopolistic competition which have few or some number of players in the industry which could mean anything from 2 to 52 firms (Greer, p 173).

The Lorenz Curve and Gini Coefficient is a statistical indicators of inequality in which producers are counted cumulatively in percentage along the horizontal axis, while market share is counted again cumulatively up the vertical axis (Stead, 1996, p.26). The percentages of market share sales are cumulated from the smallest-sized firm, and the percentages of the number of firms, cumulated again from the smallest-sized firm to the largest. This curve may be compared with a diagonal line which indicates equal size distribution. The more unequal the distribution of sales firms, the greater the divergence between the Lorenz curve and the diagonal line. The area between the diagonal line and the Lorenz curve is called area of concentration. The Gini coefficient summarizes the degree of inequality, since this statistics is the ratio of the area of concentration to the total areas under the diagonal (Greer 1992, p.174). As the Lorenz curve approaches the diagonal line, area of concentration shrinks and the Gini coefficient approaches 0. Conversely, as the greater inequality expands the area of concentration, the Gini coefficient approaches a value of 1.

The Concentration Ratio (CR) expresses the total sales of the largest n firms as percentages of industry's aggregate sales (Stead, 1996, p.27). The percentages of CR can be market sales or some other measures such as assets, employment, or value added, accounted for by an absolute number of the largest firms in the market. It refers to the cumulative market share of the leading n firms in the industry (Jacobson: 1996, p. 54). The ratio usually uses the market share of the leading four (CR4) or eight (CR8) firms. The arbitrary

selection of *n* is contingent on the data used and it can make a fundamental difference to empirical findings (Stead, 1996, p.29).

The H Index is named after the inventors Orris Herfindahl and Albert Hirschman. This index is the sum of squared market share of all firms in the industry (Stead: 1996). The market share can be expressed as a percentage of total market sales or assets or employment. Under pure competition the index is 0, and under monopoly it would have many. This method is considered to be the best as it registers the impact of absolute numbers as well as size inequality, and considers also all firms in a market simultaneously (Greer, 1992, p.177).

2.3.2.2 Product Differentiation

Most agricultural products are undifferentiated and thus they are operating in a close to perfect competition. Food processors or manufacturers however try to differentiate their products in order to increase their competitiveness in the target market. Food processors rely on new products, packaging, and brand advertising in differentiating their offerings (Kohl and Uhl, 2002, p 173).

Product differentiation occurs when consumers perceive that a product differs from its competitions on any physical or non-physical characteristics, including price (Greer 1992, p 107). If consumers consider products or brands of various firms to be imperfect substitute, a firm may raise its price above that of its rivals without losing its customers (Carlton and Perloff, 1994, 281). Product differentiation thus assists to improve performances of firms if appropriate

marketing strategy is well implemented to bring about successful positioning in the minds of target markets.

Differentiation insulates sellers from the discipline of price competition. It can either shift a firm's demand curve outward, enabling it to sell a larger quantity at a give price, or tilt its demand curve to a steeper slope, and therefore lower elasticity, enabling it to raise price without losing many customers (Greer 1992, p. 113).

2.3.2.3 Barriers to Entry

Berries are all types of obstacles erected at the market edge by incumbent firms as a result of their product, process, and/or by the government which makes entry difficult for potential entrants (Jacobson: 1996, p.58). Barriers to new entrants exist in food marketing firms which would affect the behavior and structure of firms in the industry. Sometimes, a few big firms do not allow new firms to enter in the market or make their entry difficult by their dominance in the market (Acharya and Agarwal 1999, p. 16). According to Porter (1980), there are six barriers to entry: economies of scale, product differentiation, capital requirements, switching costs, access to distribution channels, and government policy.

Mergers, whether vertical, horizontal or conglomerate nature, are changing the food industry leading to higher levels of market concentration (Kohls and Uhls, 2002, p 174). These may create entry barriers to the new comers in the market. A well-organized flow of market information facilitates free interactions

of both buyers and sellers which will assist them in arriving at prices and striking deals (Acharya and Agarwal 1999, p. 16).

Studies in the food industry have generally shown the existence of excess capacity, the substitution of non-price for price competition, varying degree of product differentiation and brand loyalty, and numerous instances of anticompetitive behavior such as price fixing, market sharing, and predatory practices. However, the food marketing system seems in general to be as competitive as other industries (Kohls and Uhl, 2002, p 175).

2.3.3 Market Conduct

Market conduct is behavior – what firms do with their prices, production levels, products, promotions, and other key operating variables (Greer 1992, p 297). Conduct focuses on how firms set prices (independently or in collusion), decide on advertising and research budgets etc. Market conduct specifically included market sharing and price setting policies, policies aimed at coercing rivals, and policies towards setting the quality of products (Acharya and Agarwal 1999, p. 17).

More broadly conduct may include product differentiation and advertising strategies, inter-firm mergers, acquisitions and alliances, research and development, legal tactics, and pricing strategies (Jacobson 1996, p. 132). Market conduct in general deals with marketing strategies that firms adopt particularity in their marketing mix decisions in order to address the needs of the target market, influence market structure and competitors' activities

thereby improve market performances. The nature of competition between incumbents will also influence their own market share and so size inequalities and concentration (Davies and Lyons, 1989, p. 94). The market conducts can be reflected on a single firm (a dominant firm) and among leading firms (collective agreement on creating conduct variables).

2.3.4 Market Performances

Given that structure and conducts reflect how the game is played in the market, performance reflects how well it is played. Performance consists of the achievements, outcomes, and answers provided by the market (Greer 1992, p. 589). It reflects the economic achievements that flow from the industry as each firm pursues its particular line of conduct. Market performance is the success of a market in producing benefits for consumers (Carlton and Perloff, 1994, p 331). Kohl and Uhl (2002, p 33) defined food market performance as how well the food marketing system performs what society and the market participants expect of it.

2.3.5 Measures of Market Performances

There are many approaches to measure market performances of firms. One way of measuring the performance the food marketing system is whether the film is achieving its goals of satisfying the requirements of the various participants such as consumers, food manufacturing firms, farmers, and the society (Kohl and Uhl, 2002, p 34). They further argued that efficiency which is a ratio of output to input is the most frequently used measure of market performance as it can improve a common goal of farmers, food marketing

firms, consumers and society. Operational efficiency is a situation where the costs of marketing are reduced without affecting the marketing outputs. It is usually measured by labor productivity or output per labor-hour (Kohls and Uhl, 2002, p. 36). Measuring market performances of firms based on efficiency goals of all stakeholders is a complex task. One way of measuring efficiency for an industry or a firm is the capacity utilization rate which shows the extent to which productive capacity is being realized in practice (Jacobson: 1996, p. 232).

Another approach to the market performance assessment of firms is the profitability or price to cost relationship which includes rate of return, price-cost margin (the difference between price and marginal cost), Tobin's q which is the ratio of the market value of a firm to its vale based upon the assets replacement cost (Carlton and Perloff, 1994, p.334).

Since the objective of this project is to understand the structure of the industry, strategies they pursue, and measure the performances of food producing firms such tools as concentration ratio as measured in terms of market share, pricing strategies and advertisement expenses, labor productivity, profitability and capacity utilizations are adopted .

2.4 Competition and Strategies in the Food Market

2.4.1 Types of Competition

Competition involves all observable phenomena of the market such as prices at which products are exchanged, the kinds and qualities of products produced, the quantities exchanged, the methods of distribution employed, and the emphasis placed on promotion (Jain 2000, p. 75).

Although the premise of competition is freedom, competition can be imperfect or distorted by the intervention of various external and internal factors. An industry or a market can be characterized by its structure which is described by the number of firms, the similarity of their offerings, and ease by which new firms can enter and leave the industry (Kohls and Uhl, 2002: p 167). These market structures according to Economists are classified into four: perfect competition, oligopoly, monopoly, and monopolistic competition.

Perfect competition is a pure or atomistic competition where there are many buyers and sellers with similar size thus no one influencing price alone, selling undifferentiated products, little entry and exit barrier, every player has complete knowledge about the market, and prices are set freely with no restrictions and collusion. Central to the economic theory of competition is the mode of perfect competition (Jain 2000, p. 75).

Oligopolistic competition involves few sellers with high degree of market concentration. The market is controlled by little large number of firms with high

level of interdependence. The marketing decision of one firm affects the remaining firms. Because of their interdependence, they may form cartels to set prices, outputs etc.

Monopoly is the opposite of perfect competition where there is only one seller in the market. A firm is a price setter as there are no other firms competing due entry barrier.

Monopolistic Competition lies between perfect competition and oligopoly. Each firm in the market seeks to differentiate its products/services so that each firm becomes little monopoly in its market. This type of monopoly has limited power as its products or services are substitutable by competitors' products.

2.4.2 Competition in the Food Manufacturing Industry

Competition can be defined in different ways depending on the structure of the industry and the environment in which a firm or firms operate. A competitive industry is one that requires no intervention to improve its performance; and a non competitive industry is one that has some defect that should be corrected (Carlton and Perloff, 1994, p 126).

The number of food processors and manufacturers is declining in many western countries such as in US due to mainly economies of scale, mergers, acquisitions and consolidations which would increase their market dominance. However, the average size of plants has been increasing. Such plants as flour

mills, dairy processors, and poultry plants tend to specialize, while many of the large food processors have been diversifying into many different farm products, nonfarm, and nonfood industries such as transportation, publishing, clothing, toys, & other consumer goods (Kohl & Uhl, 86).

The food processing industry can be divided into two sectors: (1) a dominant core, which consists of a few very large firms producing well known brands, which accounts for a significant share of the of industry sales; and (2) a competitive fringe, which consists of a large number of small firms producing less well-known brands, and which accounts for a small share of industry sales. And thus competition among these two sectors focuses on branding, advertising and prices (Kohls & Uhl, 2002: 87).

If all firms produce identical products, the dominant firm sets a price, and others take it as given. According to Carton and Perloff (1994, pp. 1958-159), a firm becomes dominate in an industry if it has

- Cost advantage over the fringe firms due to management or technology, early entry to an industry, or economies of scale advantages.
- Superior products in a market in where each firm produces of differentiated products
- A group of firms collectively acting (cartel) as dominant firms.

Competition in the food industry takes several forms (Kohls and Uhls, 2003, p.167). These are:

Product competition: refers to rivalry between two alternative substitute products

Firm competition: concerns the rivalry between sellers of similar products, usually competition is brand based.

Interregional competition: rivalry between brands of firms from different regions.

Institutional competition: relates to rivalry between competing market institutions such competition between grocery stores, fast-food restaurants and vending machines.

Functional competition: arises when two or firms vie to determine who will perform particular marketing functions, such as storages, financing or transportation. The marketing performances of the food industry have been also characterized by low productivity and lack of competitiveness.

2.4.3 Marketing Strategies of the Food Processing Firms

Food processing or food manufacturing firms are mainly engaged in adding form utility to the unprocessed agricultural products. Due to increasing competitions and demanding consumers for better food products, food processing firms have been forced to adopt marketing strategies that has been confined to other industries. Food manufacturing firms practice market segmentation, product differentiation, and positioning of their value-added, branded products in order to succeed in the market (Kohl and Uhl, 81). Food

manufacturing firms employ different competitive marketing strategies in satisfying customers' needs and wants more than their competitors. These marketing strategies revolve around the four marketing mix elements i.e. product, price, place (distribution), and promotion strategies. The Food and Agricultural Organization (FAO) puts the marketing mix as parts of core strategy that an organization uses to create a preference for its products and services in the market place (1997, p.56).

Product Strategies deal with such matters as number and diversity of products, product innovations, product scope, and product design (Jain 2000, p 358). Product strategies in food processors incorporate such aspects of product bundles as quality, convenience, packaging, nutrition, innovations, or even price as the key marketing idea (Kohl and Uhl 2002, p 83). Branding is the most important product strategy of food processors that can earn them brand loyalty or a consumer-franchise from customers thus contributing to market dominance and better performance. Product strategy, among other things, varies depending on the life cycle of a new food product.

Pricing Strategies depend on whether a product is new or existing one. If a new product is introduced, the pricing strategy can be skimming or penetration pricing. On the other hand if a product is an existing one, the pricing strategy can be maintaining the price, reducing the price or increasing the price. In both cases pricing decisions are affected by such factors as pricing objectives, cost, competition, and demand for a product (Jain, 2000, pp. 437-438). A variety of approaches may be taken to pricing including cost

based, demand based, competitors based, and market based (FAO, 1997, p.56).

Food processors may use a gourmet strategy – with a high quality price mix, while other may use a value pricing strategy with lower price and quality appeal. Food manufacturers may also adopt price discounts and psychological pricing strategies to attract consumers (Kohl and Uhl, 2002, p.84).

Distribution Strategies are concerned with the channels a firm may employ to make its goods and services available to customers. Channels are organized structures of buyers and sellers that bridge the gap of time and space between the manufacturer and the customer (Jain, 2002, p. 445). Distribution strategies for food processors include selling through conventional food stores, selling food in nonfood stores, selling to the foodservices market, selling in vending machines, mail or catalog selling, home delivery, and even selling doo-to-door by high school or scouting organization. Many food processors operate their own sales offices, warehouses, and professional sales forces (Kohl and Uhl, 2002, p.84).

Promotion Strategies are concerned with planning, implementing, and control of persuasive communication with customers that may be designed around advertizing, personal selling, sales promotion, and any combination of these (Jan 2000, p. 481). Food manufacturers have many choices to make here in selecting the goal of the promotion (to remind, inform, or persuade); the theme or appeal (price, quality, etc.) of the promotion; the types of promotion (advertisement, sales promotion, personal selling, publicity); which media

(print, broadcast, direct mail, point-of-purchase, etc) will carry the promotion; and who the promotion will be targeted to (the user, the buyer, or the influencer) (Kohl and Uhl, 2002, p. 85). Promotion strategies also include the decision of promotion budget allocation. Mass media advertisement, coupons, free samples, cent-off deals, promotional trade allowances, and point-of-purchase merchandizing materials are most widely used promotional tools in differentiating products of food manufacturing firms. Food processors have to direct their promotional strategies both to the consumers (pull strategies) and the retailers (push strategies) so as to maximize their sales volume. However, increasingly food processors are finding it profitable to shift promotional dollars from direct consumer advertising to trade promotion (Kohl and Uhl, 2002, p. 85).

2.5 Problems and Challenges of Food Processors

The problems and challenges of food processing firms are summarized as follows (Kohl and Uhl (1980:pp.102-103) :

1. Processing Problems: Ideally Food processing plants and equipments should operate efficiently at full capacity all year round. However, they suffer from under- capacity utilization problem due to variation in quality and quantity of farm products, and the increasing labor cost.
2. Buying Operations: All manufacturers are faced with supply problems. Food processors can directly buy or depend on other marketing agencies to purchase raw materials. Many processors use field men to work closely with producers. They have been also active in establishing pricing and contracting practices to encourage production in the

desired volume and quality and have been active participants in contract integration activities with farmers.

3. Selling Strategies: Food processors are faced with the necessity of choosing between alternative methods of selling finished products. The selection of the alternative mainly depends on the size and perishability of products. There two possible alternatives i.e. use independent wholesalers or set-up own sales and distribution system.

FAO (1997, pp.11-12) states that the concerns, challenges and expectations of food manufacturers from suppliers of raw materials point of view as quality, cost, non-seasonality, reliability, processing (value addition), product differentiation and health aspects. These expectations and challenges should be met in order to improve the competitiveness of the food processing industry.

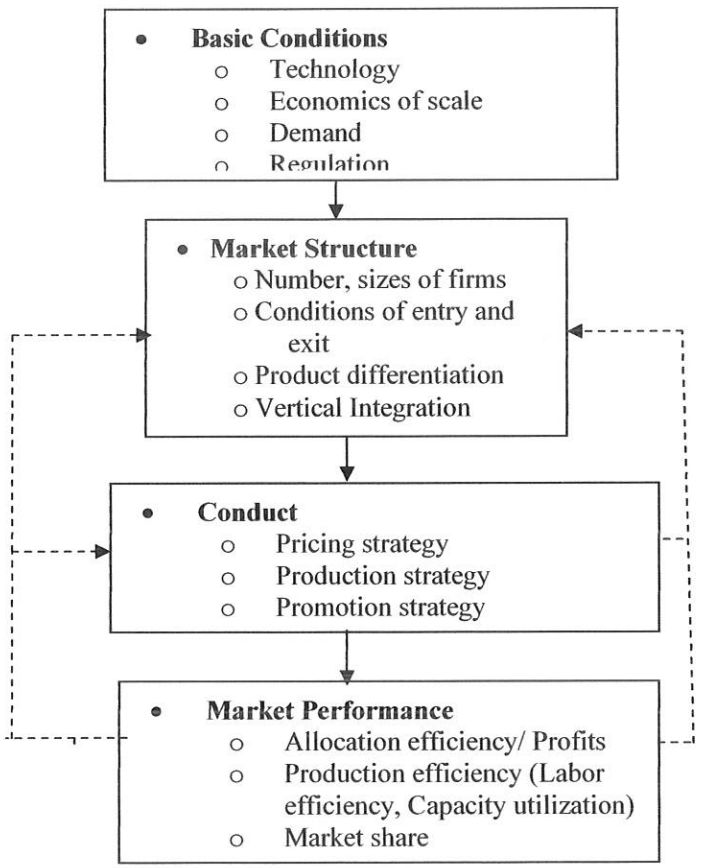
2.6 Model of Analysis

Based on the conceptual framework discussed so far, the characteristics of the food manufacturing firms in general and the pasta, macaroni and biscuits firms in particular can be analyzed using the following model of industrial organization:

- Number, size, and degree of concentration, product differentiation, and entry barriers in the market
- Market conduct or behavior as explained by pricing, and other marketing strategies
- Market performances as explained mainly by productivity or capacity utilization, and profitability.

This model is influenced by basic conditions that are external to firms as indicated below.

Figure 1. The Structure, conduct and performance model of market analysis.



Source: adapted from Greer's descriptions of industrial organization analysis, 1992, p. 12

CHAPTER THREE

Performances of the Ethiopian Industrial Sector: A Review

3.1 Introduction

The Ethiopian market can be viewed from its dual characteristics. On the one hand there is the rural market that constitutes about 85% of the population, and on the other hand there is the urban market that has relatively higher purchasing power and better infrastructures than the rural markets. The urban consumers depend largely on the rural suppliers for their food requirements. The rural consumers, who have little capacity to buy, seeks mainly consumable products such as soap, kerosene, salt, sugar from the urban based suppliers or industries. According to the 1999/2000 Household Income, Consumptions and Expenditure survey of the Central Statistical Agency, 52.5% of the household income was spent on food. The urban household and rural household spent about 35.8% and 57.3% on food respectively which reveals that people have little surplus for saving and investment.

The Ethiopian market is dominated by agricultural products. During the last six years (1999/00 – 2004/05) the average share of agriculture, service and manufacturing were 48.9%, 38.4% and 12.7% respectively (National Bank of Ethiopia, quarterly bulletin, 2005/06, Vol.21, No.4). The sector is driven by subsistence production (agriculture) with low productivity which is explained by its high dependence on rainfall and limited use of modern inputs (Alemayehu and Tadele, 2004, P.6).

The share of industry to GDP has been in the range of 9 and 11 percent since early 1960s (EEA's Report on the Ethiopian Economy, Volume V, 2005/06, p13). The industrial sector is classified as mining and quarrying, large and medium scale industries, small scale industries and handicrafts, electric city and water, and construction sectors. 81% of the output of the industry is dominated by the three sub-sectors namely, large and medium scale industries (38%), construction (25%, and small scale industries and handicrafts (17.6%) as indicated below. The growth rate of the construction sector has been the highest (an average of 8% from 2001/02-2004/05) in the sector. The growth rate of the large and medium scale industries has dropped from 8% in 1991/92-2004/05 to 5.3% in 2001/02-2004/05 which may be attributed to the usual reason of lack of market and shortages of raw materials. The contribution of the industrial sector to GDP has thus been negligible.

Table 3.1 Contribution of the Industrial Sector

Industrial sub-sector	Share in the sector	Share in GDP	Growth rate				
	1991/92-2004/05	1991/92-2004/05	1991/92-2004/05	2001/02-04/05	2002/03	2003/04	2004/05
Mining and Quarrying	4.4	0.5	7.2	6.2	4.1	6.5	8
Large and Medium Scale Enterprises	38	4.6	8	5.3	5	6	5
Small Scale Industries and Handcrafts	17.6	2.1	4.4	4	0.1	7	5
Electricity & water	14.9	1.8	4	5.8	4.3	7.1	6
Construction	25.1	3.0	6.5	8	7.4	8.2	8.5
Industry total	100	11.3	6.2	6	4.6	6.9	6.6

Source: Ministry of Finance and Economic Development as reported on EEA's Report of the Ethiopian Economy Volume V, 2005/06, p. 14

Compared to Sub-Saharan average annual growth rate of 4.5% from 2000-2004, Ethiopian industrial sector had 5.5% value addition. The sector has shown some improvements when compared to 3.5% average growth from 1990 -1999 (World Bank: African Development Indicator, 2006).

3.2 Major Players in the Market

One can not think of explaining the characteristics of a market without assessing the major market players or categories of firms in a certain business environment. The major market categories in developing countries include the indigenous marketers, the multinational marketers, and the government marketers (Kinsey, pp. 28-31). In the African context, as viewed from sector-by-sector basis the private and public enterprises have been playing important role in the economy. In many African countries the private sector has a dominant role in agriculture, manufacturing (excluding some agro-industry), commercial banks, insurance companies, and tourism sectors. Mining, petroleum, and natural gas extraction, public utilities and services are dominated by the Public Enterprises (Public Enterprises Performances and the Privatization Debate, 1987, pp 34-35,).

The emphasis in the 1960s and 1970s on government intervention of developing countries to resolve market failures gave way in the 1980s to market-oriented liberalizations or the introduction of mixed-economies to 'get prices right' and more recently, to a focus on 'getting institution right'. Not only that but also the collapse of the Soviet Union and its ideological effect had contributed to the championship of market oriented economies in many

developing countries like Ethiopia. In response to these changes Ethiopia declared mixed-economy in 1989, and later following the downfall of the Dergue in 1991, a free market economy was declared. Kibour (Vision 2020, 1996 Eth. Cale, pp. 120-123) classified the major market players in the Ethiopian private sectors are Endowments (part affiliated Companies), Al-Amound's Co/MIDROC groups, the mass private merchants known as "Merchants of Markato" which can be categorized as self-made firms.

The Self-made Private Enterprises that range from sole proprietorship to share companies operating mainly at the local market levels are many in number engaging in small, medium and large scale operations. Some of them may have branches across the country. Most of them are managed by owners and relatives. In recent years however, this categories of the business have begun recruiting professionals from the labor market. Professionals are being employed in key areas such as production, finance and sales. Most of the "merchants of merkato" mentioned above fall under this category and they are the engines of business development. These types of institutions are mainly dominated by wholesalers and retailers. In such types of markets, no selling efforts are made as the incentive in buying comes from the consumer. Thus these institutions have the objectives of maximizing profit especially during inflation, shortages of stable commodities (Kinsey, 1988, p262).

The MIDROC Group of Companies hold the lion share of the foreign investments in the country. Although these companies have diverse operations ranging from soft drinks to gold mine, their domain of operations

are mainly limited in the local markets. They are frequently criticized for their poor performances and inefficiencies due to mainly lack of sound management and leadership. Some observers doubt the sustainability of these companies in supporting the efforts Ethiopian growth and development (Kibour Vision 2020, p 122). However, there have been remarkable continuous improvements in all companies under the leadership of the Chief Executive Office (CEO) which proves the fact that leadership makes a difference.

The Endowments/Party affiliated companies are also the second giants after MIDROC in terms of their new investment capital, diversified businesses, and employment generation. It is very difficult to comment on their performances as they do not have transparent reporting systems to the government or the public. It is believed that many of these companies have suffered from heavy debt burden, due to under capacity utilizations and lack of sound management practices as their leadership has been dominated by senior political figures that may not have the time and perhaps the capability to lead such types of huge and diversified business ventures.

Government Owned Enterprises; The government is still the major active player in the Ethiopian economy. Telecommunications, Electricity. Water, Banks, Airline and Shipping Lines etc are the major cash cows of the government. Although the share of the government on average declined by 2.6% from 1999/00 to 2004/05, it had over 50% of production share in the Large and Medium Scale Manufacturing (EEA's Report: 2004/05). However,

many public enterprises have been privatized since 1995. For example from 1995 – 2005, out of the tenders of 308 enterprises, 214 or 69.5% of them have been sold and transferred to the private sector which generated Birr 3.138 billion. Although the sales performances of public enterprises that were under the government ownership from 2001-2004 had profit, the agricultural and agro-processing industry and the textile industry have been showing losses (Privatization and Public Enterprises Supervising Agency Profile, pp 18-19).

The major multinational companies in Ethiopia are the Coca Cola and Pepsi Cola brands that are operating under franchise arrangement with their respective bottlers. Petroleum companies like Shell and Total are also operating. However, many products of multinational companies such as Colgate, Nestlé, Kellogg, Toyota, Nissan, Mercedes etc are represented by local agents. There are no multinational companies yet directly investing and operating in the market.

3.3 Large and Medium Scale Manufacturing Industries

The Central Statistical Agency defines Large and Medium Scale Manufacturing (LMSM) Enterprises in Ethiopia as establishments which engage ten persons and above and uses power-driven machinery. LMSM industries employed over 109,000 employees with a Gross Value of Production (GVP) of Birr 12316.4 million (CSA, 2004/05). Compared to the performances of the previous year, the sector had 13.3% growth. Which means that this sector in annually produces goods only with Birr 169 per capita (EEA, 2005/06).

This sector suffers also from both declining labor productivity. Compared to China, India, and Kenya, labor productivity in Ethiopia is one of the lowest (EEA, 2005). Labor productivity as measured by value added per production worker has declined consistently on average by 2% annually form 1999/00 to 2004/04 (EEA, 2005/06). This implies that the sector is also characterized by low competitiveness and performance. The products of most enterprises in the sector appear unable to effectively compete with imports in the domestic market or as exports on the international market (Alemayehu and Tadele, 2004, p.10). Production capacity utilization of firms in this sector has been also dismal. The capacity utilization rate of this sector for instance in 2004/05 was 60.68% (CSA, 2006), the highest ever since 1999/00.

Manufacture of furniture and manufacture of non-metallic mineral products, which represented 21.20 and 11.9 percent of the total, were in second and third position, respectively. That means the share of the three industrial groups combined was 63.8 percent of the total number of manufacturing industries, which indicates that, the Ethiopian Large and Medium Scale Manufacturing Industry is characterized by a high concentration of a limited range of manufacturing activities (CSA, 2006, p.).

Large and Medium Scale Manufacturing enterprises in general are structurally distorted and unbalanced which is composed of consumption goods that can not meet its own intermediate inputs (EEA, 2005/06). This implies that the sector lack integration and thus it is highly dependent on external sources for its requirements.

3.4 Characteristics of the Food Manufacturing Firms

As table 3.2 below shows, in 2004/05, food and beverages sector accounted 30.7% of the number of establishment (1207 in number) in 2004/05 with a growth rate of 12% and 16% from 2003/04 to 2004/05 respectively, higher than the industry's growth rate of 11% and 12% of same period. This sector employed about 30% of the labor force, generating 41.9% of the total manufacturing value added., and a gross value of production contribution of close to 36% in 2004/05 (CSA: 2006, p.6). The outputs by these sectors among others include flour, bread, sugar, biscuits, macaroni, pasta, edible oil, soft drinks, beer, and alcohol drinks. Most of these firms are small scale in size, hence incapable of benefiting from economies of scale (EEA, 2005/06, p.59).

Firms classified under manufacture of food products excluding beverages constituted the largest share of all firms accounting for 27 percent from 2000/01-2004/05. The bakeries held 58% of the number of firms in the food industry, followed by Grain mill plants with a 22% share which indicate that the Ethiopian Food industry is characterized by high degree of concentration accounting 80% of the total industries, operating at low level of value addition, and with the applications of backward food processing technologies.

Table 3.2 Number of food manufacturing establishments from 2000/01 - 2004/05

The Food sub-sector	2000/01	2001/02	2002/03	2003/04	2004/05
Meat, Fruits and Vegetable Processing and Preserving	9	9	9	8	7
Vegetable and animal oils and fats	27	30	27	28	26
Dairy Products	2	2	3	3	3
Grain Mill Products	55	60	63	75	74
Bakery products	104	124	127	141	192
Sugar and Sugar Confectionery	8	12	10	12	10
Macaroni and Spaghetti	4	3	5	6	7
Other Food products not else where classified	9	9	10	12	11
Total Food Industry	218	249	254	285	330
Total Large and Medium Manfg.	798	909	966	1074	1207
% Share	27%	27%	26%	27%	27%
Growth Rate of the food industry		14%	2%	12%	16%
Growth Rate of the Large and medium Manfg.		14%	6%	11%	12%

Source: Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, November 2006

Of the 345 food processing firms, 51.9% or 179 of them have been suffering from absence of market demand (CSA, 2006). Lack of demand could also be attributed to low level of competitiveness in the market or inability of these firms to invest in market development so as to nurture and exploit exiting and latent demands. In 2004/05, firms under this industry, had a production capacity utilization rate of 64.68%; blending and manufacture of wine, and manufacture of sugar had the highest capacity utilization rate of 105.8% and 97.6% respectively (CSA, 2006).

Viewed in term of production, as indicated on table 3.3 below, sugar had the largest contribution of 47.8% followed by the more competitive wheat flour production of 28.8%. Pasta and Macaroni held the third position with contribution of 6% or over 42000 tons of production outputs of processed food

items. However, the production growth of this sector had been declining for many years except in 2004/05 which had a record growth rate of 17%.

Market entry except for sugar industry seems easy in food as the number of firms joining the market has been increasing at a rate of 11% per year from 2000/01-2004/05. The increasing level of investment attraction and incentives by the government (as agro-processing is one of the main investment priority areas) may have also contributed to the growth of this sector.

Table 3.3 Production of major manufactured food products

Food Items	Unit	2000/01	2001/02	2002/03	2003/04	2004/05	Total	% Share
Meat	Tons	555	1194	849	224	208	3030	0.1%
Vegetable soup	"	2452	0	55	715	0	3222	0.1%
Marmalade	"	1649	1172	144	108	108	3181	0.1%
Tomato Paste	"	1730	555	2116	1846	1846	8093	0.3%
Butter and Ghee	"	922	384	180	339	394	2219	0.1%
Cheese	"	187	166	140	189	104	786	0.0%
Edible Oil	"	8329	7993	8027	6931	4882	36162	1.4%
Oil Cakes	"	13484	75201	14149	18481	12828	134143	5.2%
Flour (wheat)	"	165345	142541	136669	155692	148786	749033	28.8%
Flour (Others)	"	274	891	881	293	0	2339	0.1%
Fafa, Dube, Ediget, Meten, etc	"	11693	9216	15379	18481	12828	67597	2.6%
Macaroni and Pasta	"	26214	23258	30239	36208	40258	156177	6.0%
Biscuits	"	16607	4925	5639	7361	10115	44647	1.7%
Galetta	"	5777	2130	1509	2527	1428	13371	0.5%
Bread	"	26607	19979	20747	19520	38577	125430	4.8%
Sugar	"	251349	248152	268008	198762	274836	1241107	47.8%
Sweets	"	1440	1405	992	1460	1103	6400	0.2%
Total		534614	539162	505723	469137	548301	2596937	100.0%
Growth Rate			1%	-6%	-7%	17%		

Source: Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, November 2006.

Many firms also lack innovativeness and creativity in their marketing approach. According to Kohls and Uhls (2003, p.83), there are three types of innovations that have been important for the food manufacturers. These are:

- New marketing methods and techniques – which often improves operational efficiency
- New products or services – which add more customer value to products, and
- New business organizations – such as cooperatives food processors, Joint Ventures between firms, or new market channels.

The review of literature made so far reveals that the Large and Medium Scale Manufacturing enterprises in Ethiopia can be characterized by:

1. Lack of market demands and low competitiveness in the market
2. Under capacity utilization
3. Low labor productivity and profitability
4. backward production technology
5. Poor quality of products
6. Low level of contribution to GDP, and
7. Little integration and high dependency on external supply of materials, and
8. Lack of market development efforts and innovation.

CHAPTER FOUR

Market Structure, Conduct and Performances of Pasta, Macaroni and Biscuits Processing Firms: Analysis and Interpretation

4.1 Market Structure

4.1.1 Background of the Firms

There are five firms covered in this analysis; three of them namely Dire Dawa Food Complex, Kaliti Food SC, Kokeb Flour and Pasta Factory belong to the government, all of which are expected to be privatized. These companies mainly produce and sell pasta, macaroni, wheat flour and biscuits. Two of them i.e. NAS Foods and 2Brothers are privately owned firms that are currently producing biscuits. NAS Foods in its 4 years operation had overtaken Dire Dawa Food Complex in terms of its sales turnover as shown on table 4.1 below. Dire Dawa has the highest asset followed by NAS Foods as indicated on table 4.3 below.

Table 4.1 Background of the Firms

Name of the Firm	Core Business	Ownership	Year of establishment	Total Asset (000)	Number of employees	Annual Turnover (2005/06) (000)
Dire Dawa Food Complex	Pasta and Macaroni	Government	1992	148.8	245	87.4
NAS Foods	Biscuits	Private	2002	98.8	512	96.1
Kaliti Foods SC	Pasta, Macaroni, Biscuits	Government	1938	53.5	522	40.6
Kokeb Flour	Pasta, Macaroni	Government	NA	13.1	325	21.9
2Brothers	Biscuits	Private	1998	NA	310	52.7

Source: Company Reports

4.1.2 Structure of Pasta & Macaroni Producing Firms

There are eight firms operating in this sub-sector. Four of them are state owned enterprises i.e., Dire Dawa Food Complex, located at Dire Dawa town, Kaliti Food Complex, in Kaliti town, Kokeb Flour and Pasta Factory and Ada Pasta and Macaroni in Addis Ababa. Four of the remaining enterprises namely East African Group, Abay Macaroni and Pasta Grana Doro, and Universal Food complex are private companies that have joined the market recently.

As indicated on table 3.3 above, the average industry production from 2000/01-2004/05 was 36000 tons per year with an average yearly growth rate of 12%. However its growth rate increased to 20% from 2001/02 to 2005/06. Production quantity that was 26214 in 2000/01 increased to 40258 in 2004/05, a remarkable increase of 53.6%. There are also some Traders that import theses products irregularly from European & Gulf countries. In the last five years, over 95% of the market however had been supplied by local producers. According to opinions of the general managers of pasta and macaroni producing firms, the qualities of the locally produced macaroni and spaghetti are inferior compared to the imported ones mainly because of poor quality of wheat flour i.e. lack of Durum Wheat in the country.

Table 4.2 indicates that the industry had revenue of close to Birr 200 million in 2004/05 growing at an average rate of 23% per year. The concentration ration (CR3) of the three firms was 0.76 in 2002/03 and dropped to 0.46 in 2005/06. The average concentration ratio of these firms was 0.62 which proves that the industry has been quite concentrated. Two of the largest firms owned by the

government i.e. Dire Dawa Food Complex, Kaliti Foods SC, accounted 55% of the market share (close to Birr 95 million revenue) for five years period from 2001/02 to 2005/06 which indicates that this market has been dominated by these two firms.

Table 4.2 Revenue from Sales of large and medium food manufacturing enterprises from 2000/01 - 2004/05 (in 000 Birr)

The Food sub-sector	2001/02	2002/03	2003/04	2004/05	2005/06***	Average Sales	Market Share
Macaroni and Spaghetti	104,661	139,099	181,608	191,731	235,829	170586	
Growth Rate		33%	31%	6%	23%	18%	
Biscuits and Galetta**	70,389	80,515	98,701	130,233	174,578	110883	
Growth Rate		14%	23%	32%	34%	21%	
Macaroni and Spaghetti						0	
Dire Dawa Food Complex (DDFC)	53,250	58,674	64,566	64,216	62,730	60687	36%
Kaliti	32,365	35,271	34,426	37,876	29,486	33885	20%
Kokeb		11,133	13,120	15,949	15,924	14032	8%
Total	85,615	105,078	112,112	118,041	108,140	105797	62%
% Share	82%	76%	62%	62%	46%	65%	
Biscuits and Galetta**						0	
NAS Foods		13,900	40,370	58,130	96,140	41708	38%
2 Brothers		15,750	29,750	38,930	52,710	34285	31%
DDFC	6,488	6,179	6,283	5,503	7,077	6306	6%
Kaliti	7,319	7,054	7,309	4,249	2,222	5631	5%
Total	13,807	42,883	83,712	106,812	158,149	81073	73%
% Share	20%	53%	85%	82%	91%		

Source: Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, November 2006, Audited Reports, Company Reports and Own calculation.

* Bead sales which is a bakery product is calculated based on a unit price of Birr 3500 and 3570 for 2003/04 and 2004/05 respectively

** Unit prices of Birr 12,000 and 11500 for biscuits, and Birr 5500 and 5600 for Galetta per ton has been to arrive at their sales figures

*** Sales were forecasted based on Trend analysis

4.1.3 The Structure of Biscuits Producing Firms

Firms in the biscuits industry are fourteen in number. Unlike the Pasta and Macaroni producing firms which demands relatively higher level of technology, capital and skilled manpower the investment required to establish biscuits production facilities is relatively easy. That is why the number of firms in this sector is higher than the number of pasta and macaroni producing firms.

As table 3.3 in the third chapter indicates the production of biscuits has declined from 22384 in 2000/01 to 11543 in 2004/05. In 2004/05 the sector had estimated revenue of Birr 130 million. However, this sector grew an average of 19% per year from 2002/03 – 2004/05. The concentration ratio (CR4) of the four major biscuits producing firms i.e. Dire Dawa Food complex, NAS Foods, 2Brothers, and Kaliti Foods SC, as measured in terms of sales revenue grew from 0.53 to 0.91 from 2002/03 to 2005/06 respectively. Two of the firms i.e. NAS Foods and 2Borthers held an average of 69% of the market share from 2002/03 to 2005/06. Their share increased in 2005/06 to 85% – both of them particularly the former joined the industry recently. It is obvious that NAS Foods and 2Brothers have been dominating the biscuits market with a high degree of market power as witnessed in the significant sales growth indicated on table 4.2 above.

The introduction of NAS Foods particularly with its modern production technology and aggressive advertisement support has been inspiring the existing firms for better packing, improved products and advertisement. The rest of the twelve firms can be considered as competitive fringes producing

less known brands and sharing small segments of the industry sales. Particularly Dire Dawa Food Complex and Kaliti Food SC which are government owned despite their huge capacity of production have not been able to utilize their capacities as their sales figures prove on table 4.2 above.

The success of NAS Foods in dominating the market easily (mainly because of less resistance form the then existing firms and its aggressive promotion), has motivated new comers to the business.

4.1.4 Barrier to Entry

Market entry in the biscuits line of business is easier than pasta and macaroni line as measured in terms of capital requirements. As estimated by the General Manager of Dire Dawa Food Complex, an European made pasta and macaroni line with one packing machine and utilities (boilers, chillers, compressors etc) costs Birr 55 million, while biscuits line with one packing line costs Birr 20million. Besides the capital requirements, skilled manpower and availability of quality wheat particularly for the production of pasta and macaroni affects entry in the business. Because of relatively lower capital requirement and low quality utilization of wheat, the increasing number of firms in the biscuits is higher than that of pasta and macaroni. The effects of branding and advertisements haves not yet created any significant barriers to entry as these products can be easily substitutable. Although companies in this sector are adopting such marketing tools as branding, packaging, and advertisements as their strategies, competition is still is based mainly on price based.

4.1.5. Product Differentiation

Recently, many processed food products like pasta and macaroni are not being sold without labeling and brand name in many parts of Addis. But still it is not uncommon to see pp-bags of poorly packed in transparent plastic of macaroni in the market like any grains. Product differentiation even in biscuits brands are being practiced by some of the firms like NAS Food's Hip Hop, and 2Brothers' Glory biscuits through packaging and advertisement campaigns.

Product differentiation however is an important marketing tool that creates brand awareness and consumer loyalty if the product is well positioned and communicated to the target market. It can be also help producers to charge higher prices than the undifferentiated products. Product differentiation is possible through product taste, color, shape or ingredients, packaging, and branding. The survey made on 50 consumers reveals on table 4.3 that 80% Consumers prefer Vera pasta for its quality, availability and advertisement. 30% of the consumers prefer universal macaroni because of its lower price. As indicated above the retailers charge higher prices for Vera pasta and Vera macaroni because consumers are also willing to pay more for better quality.

Packaging of pasta, macaroni and biscuits are very much similar in color, shape and design. Because of the relatively higher market share and market acceptability of Dire Dawa Food Complex and NAS Foods, almost all their followers have made similar packaging design, shape and color which prove the sector's poor market innovation and creativity. The survey reveals that

three of the government firms do not have marketing department, rather the function of marketing and sales are diluted under the function of Commercial Department. Both NAS Foods and 2Brothers have marketing departments that mainly concentrate on advertisement and selling functions. All firms have no market research units. Market surveys are made either by salespersons mainly on competitors' activities in the market and external consultants mainly for financing reasons.

Biscuits preference is also influenced by quality, availability and advertisement. Hip Hop biscuit is rated better than the rest of the brands (except NAS Glucose in its quality) in terms of quality, availability and advertisements.

Table 4.3 Major brand preferences of pasta, macaroni and biscuits

Name of Brand	Brand Owner	Customers prefer brand because of its			
		Price	Quality	availability	Advertisements
Vera Pasta	DDFC	0%	80%	80%	80%
Vera Macaroni	DDFC	0%	0%	80%	0%
Cheralia Pasta	Kaliti	0%	0%	80%	0%
Cheralia Pasta	Kaliti	0%	0%	80%	0%
Universal Macaroni	Unvers.	30%	0%	80%	0%
Hip Hop Biscuits	NAS	0%	60%	80%	80%
NAS Glucose	NAS	0%	80%	80%	0%
Glory Biscuits	2Broethrs	0%	50%	80%	60%
Tm Glucose	TM	0%	40%	50%	50%
Choppy	TM	0%	55%	56%	30%
Lovely	Etalem	0%	80%	80%	0%
2B Glucose	2Broethrs	0%	65%	80%	0%
Total	-				

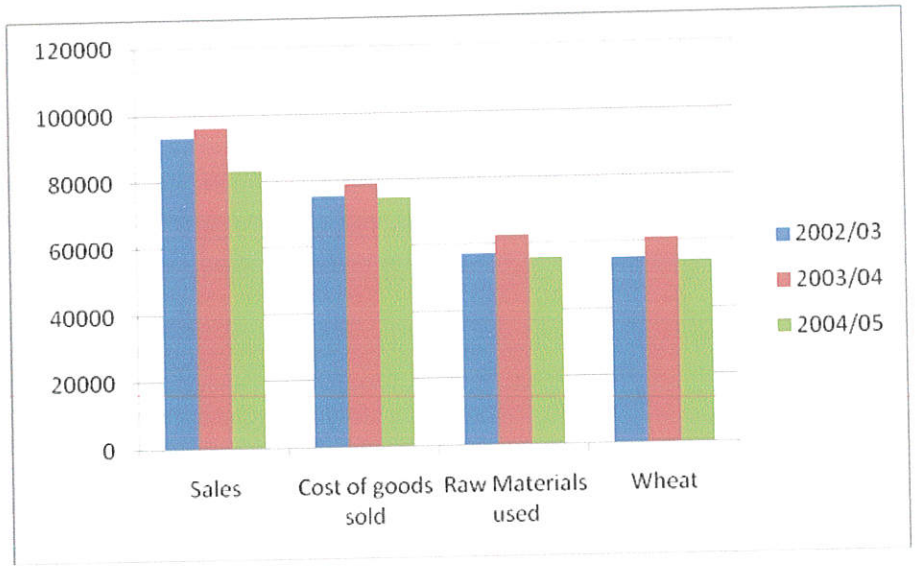
Source: Survey Result and own calculation

4.1.6 Integration

All firms under survey have flour mills that supplies flour inputs to pasta, macaroni and biscuits productions. However Dire Dawa Food Complex, Kaliti Foods SC, and Kokeb Flour and Pasta Factory sell flour direct to the market as they have excess production capacity. The industry of pasta, macaroni and biscuits sector in general except East Africa Holdings that has its own packaging plant is characterized by lack of integration and diversification.

Firms are not integrated be it is forward, backward or horizontal. Despite the high cost of raw material, firms lack of backward integration, except having their own flour mills, which makes them vulnerable to high cost of materials and lack of continuity of supplies. For example as shown on figure 2 the average of cost of direct raw materials and cost of wheat of Dire Dawa Food Complex for its production of pasta, macaroni and biscuits from 2002/03 to 2004/05 were 77% and 75% of cost of goods sold respectively. In the case of biscuits production, the cost of wheat flour constitutes 55% of the cost of goods sold.

Figure 2. Trends of Cost of Materials of Dire Dawa Food Complex



Source: Dire Dawa Food Complex Financial Statement Reports

However one can notice the fact that some of the private firms engaged in the production of biscuits have grown or graduated from flour production to biscuits and macaroni production.

According to the General Manager of Dire Dawa Food Complex for example, this vertically move is partly pushed by the unfair competition in the flour markets due to lack of fair payment of VAT by some flour milling plants because of the exorbitant value-added-tax by the government based on electric bill consumption (9.03KWH/Quintal). Dire Dawa Food Complex for example diversified into bread production so as to utilize its excessive flour production capacity and avoid paying VAT as bread is exempted from this form of tax. It is quite ridicules to levy VAT on sales of flour while excepting bread that has rather some value addition.

4.2 Market Conducts of Firms

Market conducts of firms can be explained in terms of their marketing strategies that influence performances of firms in order to succeed in dominating the market and gain competitive advantages. Firms in this regard may take a defensive or offence measures against their rivals depending on the structure of the industry and its competition. Pricing and promotions, among other things, are the major tools of marketing strategies that influence performances of a firm in an industry.

4.2.1 Price

Pricing is an important marketing tool that can be easily maneuvered by firms to create defensive postures in the industry. Pricing decisions in the food processing firms are made independently with the support of current market information mainly about competitors.

General Managers of two biscuits producing companies, and two macaroni and pasta producing firms were asked whether they set prices in consultation with their rivals (collusion) or independently. They all reported that they never discussed on price agreements or collusions. But all agree that their prices are made in consideration of the competitors' pricing decisions. Price of Dire Dawa Food Complex, which is the market leader, is higher than the rest of its competitors in Pasta and Macaroni products as shown on table 4.4 below. The remaining firms charge almost same retail prices which indicates followers (infringe firms) tacitly are agreeing (colluding) at the retail levels in order to serve the price sensitive segments of the market.

Competition among biscuit producing firms is more serious than Pasta and Macaroni producers because of the many number of firms vying for better market share and survival. Prices of biscuits of different companies that produce same size of biscuits usually have same price as shown on table 4.4 below. There are some price variations at the wholesaler's level, but no variation noted at the retailers levels for similar size of biscuits. Products in this line of business are highly substitutable due to lack of differentiation which contributes to having similar prices as consumer may not be willing to pay extra for a brand that has little difference. Firms in the biscuit market determine their prices mainly based on the prices changes of the market leader. NAS Foods and Dire Dawa Food Complex, being the market leaders in biscuits and Pasta/macaroni products charges higher prices. NAS Foods charges Birr 2-3 per carton of biscuits and Dire Dawa Foods charges Birr 40 higher per quintal of macaroni and pasta products than their competitors. In an interview held with the Manager of one of the second biscuits producer, he argued that prices should be set depending on the market position firms and their cost of production.

Table 4.4 Pricing of Pasta, Macaroni and Biscuits brands in Addis

Name of Brand	Brand Owner	Size of Brand in gm	Packaging	Wholesale Price	Retail Price	Retail Margin
Vera Pasta	DDFC	500	Packed	4.75	5.50	16%
Cheralia Pasta	Kaliti	500	Packed	4.00	4.35	9%
Cheralia Macaroni	Kaliti	500	Packed	4.00	4.50	13%
Abay Macaroni	Abay	500	Packed	4.00	4.50	13%
Universal Pasta	Mondal	500	Packed	4.00	4.50	13%
Abay Pasta	Abay	500	Packed	3.25	3.75	15%
Vera Macaroni	DDFC	1,000	Packed	6.30	6.75	7%
Cheralia Macaroni	Kaliti	1,000	Unpacked	5.50	6.00	9%
Cheralia Pasta	Kaliti	1,000		5.00	5.50	10%
Universal Macaroni	Unvers.	1,000		6.00	6.75	13%
Hip Hop Biscuits	NAS	60		0.83	1.00	20%
NAS Glucose	NAS	70		0.83	1.00	20%
Glory Biscuits	2Broethrs	60		0.81	1.00	23%
Tm Glucose	TM	70		0.80	1.00	25%
Choppy	TM	60		0.80	1.00	25%
Lovely	Etalem	70		0.80	1.00	25%
2B Glucose	2Broethrs	70		0.81	1.00	23%

Source: Survey Result and own calculation

In summary, retailers charge more on Vera pasta and macaroni than any other brands. Consumers prefer Vera Pasta to other brands because of its quality, and advertisement effect. Thus retailers are taking advantages of the brand preferences of consumers by charging higher prices of Vera pasta and Macaroni products. But this is not the case in biscuits. Retail prices of same sizes of biscuits are all same irrespective of the wholesale price.

4.2.2 Advertisement

One way of identifying the impact of advertisement on the performances of firms is advertisement to sales ratio. The types of advertisement medium used depends on the types of products i.e. fast moving consumer products such as biscuit, pasta and macaroni are mainly promoted through Television and Radio. As table4.5 below indicates, NAS Foods has been the major advertising firm accounting 57% of the 5 firms indicated below, followed by Dire Dawa Food Complex that had a share of 28% of the advertisement expenditure. The expenditures made have resulted in good brand awareness and better performance as evidenced on their sales.

Table 4.5 Advertisement Expense of the 5 firms (in Birr)

Name of firms	2003/04	2004/05	2005/06	Total	Average	% share
DDF	429,755	548,356	387,475	1,365,586	455195.3	28%
Kaliti	230,400	93,298	91,200	414,898	138299.3	9%
Kokeb	20,982	10,658	16,505	48,145	16048.33	1%
NAS Foods	1,234,501	980,000	529,392	2,743,893	914631	57%
2 Brothers	26250	72356	142,560	241,166	47520	3%
Total	1,941,888	1,704,668	1,167,132	4,813,688	1604563	100%

Source: Audited Reports, Company Reports and Own calculation

The advertisement intensity of these firms as measured in terms of advertisement to sales ratio was insignificant. The advertisement expenses of the five companies combined was below 1% of their sales which indicates their low level of market orientation and competitiveness. NAS Foods' advertisement expense was 3% in the first second year of its operations and dropped to 1% in 2005/06 as its sales increased. As can be seen on the table below, sales was growing faster than any of the companies which was mainly the results of its aggressiveness in advertisement.

Table 4.6 Advertisement Intensity of 5 Pasta/Spaghetti, Macaroni and Biscuits Factories (sale and advertisement expense are in Birr)

Food Processing Companies	Descriptions	2003/04	2004/05	2005/06
Dire Dawa Food Complex	Sales	93363655	81364167	87367135
	Advertisement Expense	429755	548356	387475
	Advertisement to Sales Ratio	0.46%	0.67%	0.44%
Kaliti Foods	Sales	52877202	51519751	40613685
	Advertisement Expense	230400	93298	91200
	Advertisement to Sales Ratio	0.44%	0.18%	0.22%
Kokeb Flour and Pasta Factory	Sales	22356700	21650434	21,888,640
	Advertisement Expense	20982	10658	16505
	Advertisement to Sales Ratio	0.09%	0.05%	0.08%
NAS Foods	Sales	40,370,000	58,130,000	96,140,000
		1,234,501	980,000	529,392
		3%	2%	1%
2 Brothers*	**Sales**	29750000	38930000	52710000
	Advertisement Expense	26250	72356	142560
	Advertisement to Sales Ratio	0.09%	0.19%	0.27%

Source: Audit Reports and Companies' Reports of each Company, and own calculations
* Sales data were collected based on the carton purchases made and interviews with Sales Manager.

In a survey made by the author on top 20 local brands in Ethiopia, it was interesting to uncover that Hip Hop biscuits of NAS Foods and Vera Pasta of Dire Dawa Food Complex were ranked at 4th and 5th levels (Yifru: Top 20 Local Brand in Ethiopia survey, June 2006). This survey proved once again that these two brands have established their images well in the market which may have attracted new comers and/or motivated existing firms in the case of biscuits markets as the number of firms have begun producing similar biscuits like Hip Hop brands.

4.3 Performances of the Firms

Performances of firms in a competitive market condition can be measured in terms of price to cost relationships or profitability, productivity or operational efficiency, or in terms of market share. Profitability can be measured in relation to sales and investment or total assets. Productivity or operational efficiency occurs when the right combination of people, process, and technology come together to enhance the productivity and value of any business operation, while minimizing cost of routine operations to a desired level. Market share measures the percentage share of total sales of a given firm in a given market. The higher the market share the dominant the firm is.

Acquiring the above data makes the tasks of measuring market performance of a firm or an industry very difficulty. Difficult it may be, one cannot escape it if performance has to be measured based on these parameters. The focus of this section is to review the performances of the 5 firms discussed earlier in terms of their profitability (limited to the four firms) and capacity utilization as presented hereunder.

4.3.1 Profitability

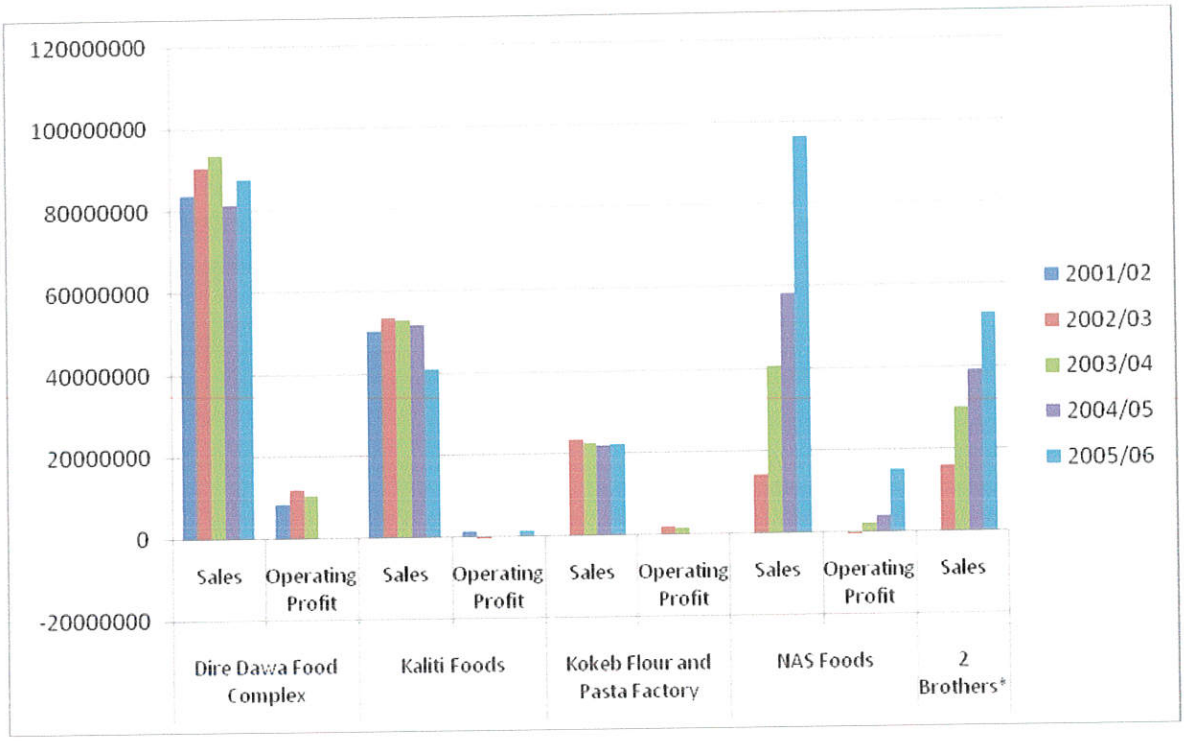
The operating combined profit ratio of the three government owned firms in 2005/06 was 0.19%. However, as shown on table 4.8 and Figure 2 below, it has been growing an average of 4.28% per year but with declining trend of 60% from 2002/03 to 2005/06 as shown below. Kokeb Flour and Pasta Factory had average growth rate of 8.18% per year, while Dire Dawa Food complex and Kaliti Foods had 6.62% and 0.66% respectively.

This growth rate was indeed below the industry average growth rate of 12% in the period under review.

The return on investment of the three firms combined i.e. Dire Dawa Food Complex, Kaliti Foods SC, and Kokeb Flour and Pasta Factory was 0.14% in 2005/06. It has been however growing an average of 3.68% per year in the period under review. Except in 2004/05 these firms had positive return on invest. Kokeb Flour and Pasta Factory had a return on investment growth rate of 8.43%, followed by Dire Dawa Food complex (4.85%) and Kaliti Foods SC (0.46%). The return on investments of Dire Dawa Food Complex as shown on table 4.8 below were close to the bank interest rates ranges of 7.5%-8% in 2001/02, 2002/0 and 2003/04 which had ROI of 7.16%, 9.5%, and 7.78% respectively. Kokeb Flour and Pasta Factory had well above the bank interest rate with ROI of 21.76%, and 16.26% in 2002/0 and 2003/04 respectively. According to the General Manager of Dire Dawa Food Complex, operating profit dropped in 2004/05 and 2005/06 due to the introduction of private firms in 2004/05 particularly Universal Foods, and its expansion program in 2005/06.

The operating profits of NAS Foods, as table 4.8 indicates, has grown from 5.20% in 2003/04 to 15.57% in 2005/06. Its return on investment also grew from 4.6% in 2003/04 to 27.18% in 2005/06.

Figure 3. Operating Profit and Sales Trends



Source: Prepared based on table 4.8

4.3.2 Labor Productivity

As table 4.7 shows below, labor productivity at the food industry level has declined on an average of 13% in the three years period. In 2005/06, the macaroni and pasta sub-sector's operating profit per employee was about Birr 19,000. Operating profit per person declined from 2002/03 – 2005/06 with an average of 60% which was higher than the industry average of 13%. The performances of the three firms in 2005/06 was Birr 260 per person which was the worst by any standard.

Table 4.7 Macaroni and Pasta Industry' sub-sector Operating Surplus Per Employees

Macaroni and Spaghetti Sub-sector	2001/02	2002/03	2003/04	2004/05	2005/06
Industry's Operating Profit	16,355,000	19,171,000	13,030,000	23,060,000	19,936,000
Operating Profit ratio	15.63%	13.78%	7.17%	12.03%	8.45%
Growth Rate		17%	-32%	77%	-14%
Operating Profit Per employee	37598	40275	22940	22109	19078
Growth Rate		7%	-43%	-4%	-14%
The above 3 Firms					
Operating Profit	9,223,677.00	12,946,850.00	11,570,933.00	(421,137.00)	280,069.00
Op. Margin Growth Rate		40.37%	-10.63%	-103.64%	-166.50%
Operating Margin Per employee					260

Source: Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, November 2006, Company Reports and Own Calculation

These firms belong to the government and they are all listed under companies ready for privatization process. The fact that they belong to the government could have also contributed towards their poor performances. They also lack the flexibility to quickly make decisions as they have to get clearance from board of directors and other government bodies particularly on financial issues and technologies. The declining trends of labor productivity and operations in these firms are clear indications of their low levels of market competitiveness.

In 2005/06, the operating profit per employee of NAS Foods was over Birr 29000 which was the highest among the four firms.

Table 4.8 Profitability of 3 Pasta/Spaghetti, Macaroni and Biscuits Factories (in Birr) and 1 Biscuits Factory

Food Processing Companies	Descriptions	2001/02	2002/03	2003/04	2004/05	2005/06
Dire Dawa Food Complex	Sales	83720180	90482000	93363655	81364167	87367135
	Operating Profit	8031000	11710491	10218463	89768	-420120
	Total Asset	112121000	123173189	131321577	120768980	148177241
	Operating Profit ratio	9.59%	12.94%	10.94%	0.11%	-0.48%
	Op. Margin Growth Rate		45.82%	-12.74%	-99.12%	-568.01%
	Return on Investment	7.16%	9.51%	7.78%	0.07%	-0.28%
	Operating Margin Per employee					-1715
Kaliti Foods	Sales	50020129	53440300	52877202	51519751	40613685
	Operating Profit	1,192,677.00	(534,403.00)	21,818.00	(344,273.00)	1,032,394.00
	Total Asset	56656457	50990811.3	46367936	48293385	53531792
	Operating Profit ratio	2.38%	-1.00%	0.04%	-0.67%	2.54%
	Op. Margin Growth Rate		-144.81%	-104.08%	-1677.93%	-399.88%
	Return on Investment	2.11%	-1.05%	0.05%	-0.71%	1.93%
	Operating Margin Per employee					1,978
Kokeb Flour and Pasta Factory	Sales		23128213	22356700	21650434	21,888,640
	Operating Profit		1,770,762.00	1,330,652.00	(166,632.00)	(332,205.00)
	Total Asset		8138023	8184390	9447997	13081310
	Operating Profit ratio		11.51%	9.92%	4.76%	6.39%
	Op. Margin Growth Rate			-24.85%	-112.52%	99.36%
	Return on Investment		21.76%	16.26%	-1.76%	-2.54%
	Operating Margin Per employee					-1065
The Above 3 Firms	Grand Total Sales	133740309	167050513	168597557	154534352	149869460
	Operating Profit	9,223,677.00	12,946,850.00	11,570,933.00	(421,137.00)	280,069.00

	Operating Profit ratio	6.90%	7.75%	6.86%	-0.27%	0.19%
	Op. Margin Growth Rate		40.37%	-10.63%	-103.64%	-166.50%
	Operating Margin Per employee				-413	260
	Total Asset	176,915,480	182,348,390	187,137,510	182,143,675	201,709,033
	Return on Investment	5.21%	7.10%	6.18%	-0.23%	0.14%
	Growth rate		3.07%	2.63%	-2.67%	10.74%
NAS Foods	Biscuits					
	Sales		13,900,000	40,370,000	58,130,000	96,140,000
	Operating Profit		-670,000	2,100,000	3,720,000	14,970,000
	Assets		43,090,000	45,620,000	50,340,000	55,080,000
	Operating Profit ratio		-4.82%	5.20%	6.40%	15.57%
	Op. Margin Growth Rate			-413.43%	77.14%	302.42%
	Return on Investment		-1.55%	4.60%	7.39%	27.18%
	Operating Margin Per employee					29,238
2 Brothers*	Sales		15750000	29750000	38930000	52710000
	Number of Employees					310
	Sales per employee					170032

Source: Audit Reports and Companies' Reports of each Company, and own calculations
*No financial data available due to confidentiality

The poor performances of the sector which supports the above argument has been very well explained as follows:

"Except the food industry (spaghetti and macaroni) which faces strong competition from imports, other state controlled industries, including tobacco, sugar and cement, which have high profitability ratios, are not facing much competition in the domestic market, and prices are largely administratively set which make it difficult to conclude that these industries are more efficient than others on the basis of market competition" (EEA, 2005, P. 51).

Sales per employee is also considered to evaluate the performances of firms in the sector. Dire Dawa Food Complex had the highest sales value per employee i.e. Birr 356,600 per employee, remotely followed by NAS Foods Birr 187,700 per employee. 2Brothers followed at the third position with a sales per employee of Birr 170032. Dire Dawa Food Complex and NAS Foods had over the average sales per employee which was Birr 171,911 per year as indicated on table 4.7 above.

4.3.3 Capacity Utilization

One way of measuring efficiency is the capacity utilization rate of firms which shows the degree to which productive capacity is being utilized in practice. Capacity underutilization is a sign of poor performance and inefficiency. One of the major problems of food manufacturing firms is their inability to utilize their production capacity optimally mainly because of seasonality effect in the supply of raw materials, and lack of market demand and competitiveness. High dependency on imported raw materials and low level of capacity utilization has remained the distinguishing features of Ethiopian manufacturing sector (NBE: First quarter 2006/07 Report). The capacity utilization rate of the large and medium manufacturing firms in 2004/05 was 60.68%. However, the capacity utilization had been steadily growing from 57.17% in 1999/00 to 60.68% in 2004/05. The Food and Beverage sector had relatively higher utilization rate of 64.68% in 2004/05. In the same period, the Macaroni and Spaghetti firms had the highest utilization rate of 84.03% (CSA: Report on Large and Medium Manufacturing and Electricity Industries Survey, November 2006).

The overall average capacity utilization of the five firms as indicated on table 4.9 below was 65% in 2006. Their capacity utilization declined mainly because of expansions made by Dire Dawa Food Complex on its pasta and macaroni lines from 7272 tons and 7272 tons to 16059 tons and 18786 tons per year respectively, and that of 2Brother's additional biscuits line with a capacity of 6000 tons per year.

However the capacity utilization of individual firms varies significantly. Viewed from pasta and macaroni production capacity utilizations, Dire Dawa Food Complex that had 67% (34845 tons) of the production capacity of the three firms contributed 68% (22956 Tons) of the total products produced in 2005/06 . In term as indicated on table 4.9 below. Product wise average capacity utilization reveals that pasta had highest utilization rate (69%) , followed by macaroni (61%). In 2006, Dire Dawa Food Complex which is the market leader in the sector had 70% capability utilization for pasta (Spaghetti) product, followed by Kaliti Food SC at 69%. Before the expansion of its production facilities in 2004 for example, Dire Dawa Food Complex had 101% and 107% capacity utilization rate for pasta and macaroni respectively (Strategic Plan Document: 1998 – 2001 Eth. Calendar). Kokeb and Kaliti Foods had relatively better capacity utilization in 2006 although their combined capacity was much lower than that of Dire Dawa Food Complex.

Table 4.9 Capacity Utilization of 5 Pasta/Spaghetti, Macaroni and Biscuits Factories (in Birr)

Food Processing Companies	Descriptions	Annual Production Capacity as at 2006	Actual Production Capacity as at 2006	Utilization Rate
Dire Dawa Food Complex	Wheat Flour	48944	33744	69%
	Pasta	16059	11300	70%
	Macaroni	18786	11656	62%
	Hard Biscuit (Galleta)	6060	2040	34%
	Biscuits (soft biscuits)			
Kaliti Foods				
	Wheat Flour	114000	82500	72%
	Pasta	6240	4320	69%
	Macaroni	6240	3250	52%
	Hard Biscuit (Galleta)	10920	350	3%
	Biscuits (soft biscuits)			
	Bread	7500	7500	100%
Kokeb Flour and Pasta Factory				
	Wheat Flour	24700	12000	49%
	Pasta	2340	1300	56%
	Macaroni	2340	1800	77%
NAS Foods	**Biscuits**			
		8389	8112	97%
2 Brothers*		7500	5050	67%
5 Firms	Wheat Flour	187644	128244	68%
	Pasta	24639	16920	69%
	Macaroni	27366	16706	61%
	Biscuit/Galleta	32869	15552	47%
	Total	272518		65%

Source: Audit Reports and Companies' Reports of each Company, and own calculations

* Sales data were collected based on the carton purchases made the years.

The average capacity utilization rate of the four biscuits producing firms in 2006 was the lowest in the sector i.e. only 47%. This below average

performances was attributed to the poor performances of the two firms, namely Dire Dawa Food Complex (34%) and Kaliti Food Complex (3%). NAS Foods which leads the biscuits industry had a capacity utilization rate of 97% followed by 2Brother, a challenger in the industry, with 67%. The government owned firms (Dire Dawa Food Complex and Kaliti Foods) that have a combined designed production capacities of 16,890 tons of biscuits per year (about 52% of the four firms) were only supplying 2390 tons (about 15% of their capacities) to the market. While the two Companies, NAs Foods and 2 Brothers with 15889 tons of designed production capacity had contributed 13162 tons of biscuits (85% of their average capacity) of production in 2006 which indicates higher capacity utilization than government owed firms.

The factors indicated on table 4.9 were mentioned by the respondents of the questionnaires as major reasons for under-capacity utilizations of the firms were:

- Shortages of working capital has been ranked as the first reason for not working at full capacity which might have resulted to some extent in inadequate supply of raw materials and inputs on time.
- Lack of demand for their products and fierce competition has bee the 3rd reasons for poor capacity utilization mainly for the biscuits producers of government owned companies
- High demand for small sized products i.e. small size products that light in weight takes same production time as heavy weight products, and brand switching of production i.e. changes in schedules of production of products from one brand to another creates down-time which results

in capacity underutilization were also important reasons ranked at 4th and 5th level respectively.

- Lack of spar-parts, power cut, lack of skilled manpower, and low level of production technology contributed for the poor level of capacity utilization.

Table 4.9 Reasons for under-capacity utilization

Reasons for under-capacity utilization	Rank
High demand of small sized products	4
Brand switching of production (for biscuit lines)	5
Lack of market demand and fierce competition	3
Lack of working capital	1
Continuous supply of raw materials, packing materials	2
Lack of spare parts	6
Lack of skilled manpower	8
Power cut	8
Low level of production technology	9

Source: Own survey results based on questionnaires

4.4 The Impacts of Market Structure and Conduct on Firms' Performance

The relationship between market structures, conducts of firms and their performances in an industry or across industries can not be easily defined due to the complexity of the relationships. For example Greer (1992, pp. 599-609) argues that the exact form of concentration-profits relationship may have a linear relationship, or it could be a nonlinear or discontinuous form. But he in general believes that there is a positive association between profitability and concentration over a wide variety of measures and circumstances.

The characteristics of pasta and macaroni processing firms as explained so far using the structural-conduct-performance model of industrial organization reveals that the market concentration ratio (CR3) was 76% in 2002/03 and declined to 46% in 2005/06 which reveals that this sector has been highly concentrated although it has been dropping fast. Two of these firms that are producing pasta and macaroni - Dire Dawa Food Complex and Kaliti Foods SC have been dominating the market from 2001/02 to 2005/06 commanding an average market share of 35% and 20% respectively. These two firms had a combined average market share of 55%.

As the concentration ratio dropped so did the performances of the three firms as indicated on their operating profits and return on investment on table 4.11 below. However when the concentration ratio was constant as the case in 2004/05, performances further dropped. As concentration ratio further declined in 2005/06, operating profit margin and return on investment slightly increased.

Table 4.11 The Relationship between concentration ratio (CR3) of Pasta and Macaroni and Biscuits Producing Firms and their performances

Year	CR3 for Pasta and Macaroni	Operating profits	Return on Investment
2002/03	76	7.75%	7.10%
2003/04	62	6.86%	6.18%
2004/05	62	-0.27%	-0.23%
2005/06	46	0.19%	0.14%

Source: Table 4.2 and 4.8

The number of firms engaged in the production of pasta and macaroni markets are eight. Number of firms determines the market structure of an industry. The larger the number of firms being equal in size, in a given market, the more competitive the industry will be. The smaller the number of firms coupled with variation in size, the less competitive the market will be and in this case few firms become dominant. Viewed from this perspective, the smaller number of firms in the case of Pasta and Macaroni with some differences in production technology is not as such competitive. The market of these products is dominated by Dire Dawa Food Complex that has relatively modern production technology. The company has differentiated its product and got a better acceptance in the market due to mainly it's relatively good quality product, similar packaging like the imported ones, and its better advertisement efforts made so far to create demand and enhance consumer preference than its competitors. Investment in Pasta and Macaroni also demands higher capital than other food processing lines like biscuits which

creates barrier entry for the industry. The company also charges higher price than its competitors which is in line with the notion that the higher the advertisement expense, the dominant will be the firms and thus engaging in price leadership. However its higher price did not result in higher profitability as shown in 2005/06. These firms also did not have their own wheat farm, or did not diversify in other related products except bread so as to improve their market power.

The biscuits market on the other hand differs both in the number of players and mode of competition. The number of existing firms operating in the market are fourteen. Of course they vary both in terms of production technology and market orientation. Many of the biscuits producing firms are operating with biscuits production lines and packaging machines from China and India with higher inefficiencies than machineries from Europe. Only three companies have European made production lines and packaging machines. Like that of the pasta and macaroni producing firms, the biscuits market is characterized by high degree of concentration. The concentration ratio (CR4) of the four firms as measured in terms of sales revenue was 91% in 2005/06. It grew from 53% in 2002/03 to 91% in 2005/06. Two of the firms namely NAS Foods and 2Brother had 85% of the market share. NAS Foods alone had 55% of the market in 2005/06, followed by 30% of 2Brothers.

It was not possible to explain the relationship between market structure and performances in terms of return on investments of biscuits producing firms of this study due to lack of financial data and reports by products. However, the return on investment of NAs Foods has been growing fast from 4.6% in

2002/03 to 27.18% in 2005/06, while the sales performances all government owned firms had been declining drastically following the introduction of NAS Foods and other biscuits producing firms.

New comers particularly with innovative products and systems always pose new challenges and perhaps opportunities for the incumbents in any business. According to the Factor Manager of NAS Foods, the introduction of his company in 2002 with modern technology and varieties of quality biscuits has changed the structure of the industry that was static and dominated by imported biscuits for long period of time. The Manager further explained that existing local firms began responding by emulating NAS Foods in terms of packaging, pricing and even advertising strategies. The marketing investments in terms of advertisement mainly through television that was 3% of sales in 2002/03 dropped to 1% in 2005/06- the highest expenditure in the industry. Old packing styles of biscuits and pasta have been replaced by convenient and easy to handle style. Firms in the business have similar packaging, pricing and even advertisement with little variations.

Although the biscuits market is somehow concentrated, the market leader or dominant firm does not charge higher prices at the retail level as that of Pasta and Macaroni sub-sector. At the wholesalers level however, firms charge different prices with a range of Birr 2 to Birr 4 per carton. NAS Foods, being the market leader in this business, charges higher prices at the wholes price level than its competitors. Wholesalers and retailers in general prefer to push biscuits that has generates better margin.

It has been evident that all the government owned firms were operating with no or negligible amount of profits; while the private firms have been performing remarkably. Could ownership play a significant role in influencing the performances of firms? Size as explained in terms of sales, capital, or employment had impact on the performances of the firms as proved in the operations of Dire Dawa Food and NAS Foods i.e. the higher the sales of a firm in a particular market area, the larger will be its market share. But the fact reveals that size did not have impact on the performances of these firms as measured in terms of their profitability, return on investment and labor productivity even if they had higher sales turnover.

Average capacity utilization of firms in 2006 was 65%. The major reasons for their under capacity utilization ranges form lack of demand, raw material to absence of spare-parts. Biscuits producers had the lowest utilization rate of 45% and this poor capacity utilization rate, despite their huge designed production capacity, was due to the sharp drop of sales by government owned firms due to emerging competitors.

CHAPTER FIVE

Conclusion and Recommendation

5.1 Conclusion

The research on defining the characteristics of the food markets based on the evaluation of the five firms with the application of the structural-conduct-performance model of industrial organization reveals the following key conclusions:

1. The Ethiopian food processing firms of pasta, macaroni and biscuits are highly concentrated and dominated by one or two major firms in this case Dire Dawa Food Complex and Kaliti Foods for Pasta and Macaroni Products, NAS Foods and 2Brothers in the case of biscuits market. The performances of firms particularly that of pasta and macaroni producing firms have been affected by the market structure as measured in terms of its concentration ratio (CR3) of the three firms. The relationship in general seems linear as shown on the table 4.11 above. The concentration ratio of the pasta and macaroni firms has been declining while that of biscuits has been growing.
2. Competition among the biscuits firms is more intensive than the macaroni and pasta markets due to the larger number of firms and low level of product differentiation although attempts were made to differentiate through branding and advertisement. However, there is a tendency where a dominant firms are emerging in each case, followed by infringe firms that are competing at low level.

3. Entry barrier to pasta and macaroni manufacturing is higher than biscuits production in terms of capital requirements and the shortages of quality of wheat or high cost of imported Durum wheat which is essential for quality products.
4. Firms are not integrated be it is forward, backward or horizontal. Lack of back ward integration for example in wheat farm has made firms vulnerable to lack of continuous supply of wheat that constitutes about 55% of the cost of goods sold for biscuits production (as the case in NAS Foods), and 75% for pasta and macaroni production (as the case in Dire Dawa Food Complex),
5. The role of marketing in those government owned firms has been ignored and some of its functions are handled by the commercial units which undermined the active roles of these firms in the industry. This would certainly minimizes their innovative and competitiveness in the market.
6. Prices are not determined in consultation among rivals, no collusion. But in the case of biscuits producing firms, NAS Foods, the market leader, sets its wholesale prices higher than its competitors. At the retail level all prices of same sizes are same. In the case of pasta and macaroni market, Dire Dawa Charges higher than its rivals due to its brand preference among consumers.
7. The performances of firms measured in terms of operating margin reveals mixed results. Except for NAS Foods and Kokeb Flour and Pasta Factory that had continuous growth, the rest of the firms had losses. Kaliti Food SC had incurred losses from 2002/03 to 2004/05,

while Dire Dawa Food Complex made losses in 2005/06. Particularly, these firms that dominate the market in their market share have shown discontinuous growth of profits. Return on investments of government firms was lower than one of the private firm.

8. All firms have been operating below capacity. Particularly government owned firms had the lowest capacity utilizations in their biscuits productions. The average capacity utilization rate of pasta and macaroni producing firms in 2006 was 65%, while that of biscuits was 47%.

5.2 Recommendations

The finding and conclusions of the research reveals that the pasta and macaroni firms are concentrated but with a declining trends as measured in term of CR3 with a declining performance, while the CR4 of biscuits has been increasing which also reflects increasing performances.

In term of the conducts of the firms, it has been explained that they lack competitiveness and integration in the market which demands perhaps the implementations of various solutions in an integrated manner as recommended hereunder:

1. Firms have to look for source of finance so as to get relief of shortages of raw materials and thus maximize production capacity utilization. The sources of finance could be banks, stocks/share markets or raise equity.
2. Well organized market department that can carry out market research on existing products and new products, develops sound marketing strategies for all firms is critical in order to enhance their competitiveness.
3. Investing in wheat farm and packing business in the long term will provide competitive edge for firms to compete at low cost. Thus firms should be able to consider backward integration in wheat farms as one of the viable strategies so as to ensure their competitiveness in the market. However the buy or make option has to be well analyzed so as to decide on viability of this recommendation.

4. Firms should also gear themselves towards diversification in to related products such as cornflakes, wafers and chocolates in order to tap the existing sales and distribution infrastructure.
5. Government taxes particularly Value Added Taxes (VAT) levied on flour mills might have also increased the cost of flour which in turn increases cost of food processing firms. The government thus has to remove VAT from flour products so as to motivate the sector and its chain.
6. *The quest for Future Research!* This research did not cover all firms in the industry due to time constraints and lack of reliable data. Professionals in the field of marketing and economic should therefore further investigate the characteristics of the food industry in detail using the industrial organization model of analysis so as to identify the characteristics of these firms and propose possible measures that will enhance the competitiveness of the industry. The study should among other things include the impact of ownership in the structure, conduct and performances of firms and other measures of market structures can be applied to measure performances of firms.

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Annex I Sales and Profitability of Firms

Sales and Profitability of 5 Pasta/Spaghetti, Macaroni and Biscuits Factories (in Birr)						
Food Processing Companies	**Descriptions**	**2001/02**	**2002/03**	**2003/04**	**2004/05**	**2005/06**
Dire Dawa Food Complex	Sales	83720180	90482000	93363655	81364167	87367135
	Wheat Flour	23982000	25629000	22514540	11644366	17559334
	Pasta	24331180	26925000	31045984	32659178	37273165
	Macaroni	28919000	31749000	33519996	31557186	25457499
	Hard Biscuit (Galleta)	6488000	6179000	6049480	5489150	6211321
	Biscuits (soft biscuits)			233655	14287	865816
	Cost of Goods Sold	70276778	72495536	76151645	72595252	78592688
	Gross Profit	13443402	17986464	17212010	8768915	8774447
	Expense	5412402	6275973	6993547	8679147	9194567
	Operating Profit	8031000	11710491	10218463	89768	-420120
	Other Income	395316	410645	1568461	692822	698961
	Profit Before Tax	8426316	12121136	11786924	782590	278841
	Profit Tax	3009114	3667509	3567208	183775	78087
	Net Profit	5417202	8453627	8219716	598815	200754
	Total Asset	112121000	123173189	131321577	120768980	148177241
	Operating Margin	9.59%	12.94%	10.94%	0.11%	-0.48%
	Return on Investment	7.16%	9.51%	7.78%	0.07%	-0.28%
Kaliti Foods	Sales	50020129	53440300	52877202	51519751	40613685
	Wheat Flour	6,425,000.00	4809627	1475798	2639915	751697
	Pasta	17,773,000.00	19238508	16506951	20728107	19663011
-	Macaroni	14,592,000.00	16032090	17919475	17147911	9822527
	Hard Biscuit (Galleta)	7,318,973.00	3206418	3590085	1637851	599035
	Biscuits (soft biscuits)		3847701.6	3719589	2611814	1622945
	Bread	3,541,000.00	4008022.5	5952153	3907232	5865951
	Pastini		267,201.50	286780	449830	396019
	Cost of Goods Sold	42,765,166.00	48096270	48665157	46671428	34380772
	Gross Profit	7,254,963.00	5,344,030.00	4212045	4848323	6232913
	Expense	6,062,286.00	5,878,433.00	4,190,227	5,192,596	5,200,519.00
	Operating Profit	1,192,677.00	(534,403.00)	21,818.00	(344,273.00)	1,032,394.00
	Other Income	370,156	1870410.5	3426371	2397091	1892500
	Profit Before Tax	1,562,833.00	1,336,007.50	3,448,189.00	2,052,818.00	2,924,894.00
	Profit Tax	609,964.00	#REF!	0	0	0
	Net Profit	952,869.00	#REF!	3,448,189.00	2,052,818.00	2,924,894.00

	Total Asset	56656457	50990811.3	46367936	48293385	53531792
	Operating Margin	2.38%	-1.00%	0.04%	-0.67%	2.54%
	Return on Investment	2.11%	-1.05%	0.05%	-0.71%	1.93%
Kokeb Flour and Pasta Factory	Sales		23128213	22356700	21650434	21,888,640
	Wheat Flour		10572212	7949037	4341816	4234503
	Pasta		5827115	7348423	7982242	5856418
	Macaroni		5306715	5771844	7967133	10067492
	Cost of Goods Sold		19558332	19170455	18861575	19831922
	Gross Profit		3,569,881.00	3,186,245.00	2,788,859.00	2,056,718.00
	Expense		1799119	1855593	2955491	2,388,923.00
	Operating Profit		1,770,762.00	1,330,652.00	(166,632.00)	(332,205.00)
	Other Income		1422171	1287396	1359243	1,730,227
	Profit Before Tax		3,192,933.00	2,618,048.00	1,192,611.00	1,398,022.00
	Profit Tax		531228	399367	162370	0
	Net Profit		2,661,705.00	2,218,681.00	1,030,241.00	1,398,022.00
	Total Asset		8138023	8184390	9447997	13081310
	Operating Margin		11.51%	9.92%	4.76%	6.39%
	Return on Investment		21.76%	16.26%	-1.76%	-2.54%
NAS Foods	**Biscuits**					
	Sales		13,900,000	40,370,000	58,130,000	96,140,000
	Operating Profit		-670,000	2,100,000	3,720,000	14,970,000
	Assets		43,090,000	45,620,000	50,340,000	55,080,000
	Operating Margin		-4.82%	5.20%	6.40%	15.57%
	Return on Investment		-1.55%	4.60%	7.39%	27.18%
2 Brothers*	**Sales**		15750000	29750000	38930000	52710000
	Number of Employees					310
	Sales per employee					170032

Source: Audit Reports and Companies' Reports of each Company, and own calculations

* Sales data were collected based on the carton purchases made the years.

Annex II: Questionnaires and Interview Questions for Managers/Supervisors

Q.Code:_____

Objective of the Questions

The objective of these questions is to assess and evaluate the behaviors and performances of Flour, Pasta, Macaroni, and Biscuits producers of medium and large enterprises in Ethiopia. The data that will be collected from you (and from all other respondents) will be confidential and only be used for academic purposes i.e. as inputs to write a thesis for an MBA degree in Addis Ababa University, and by no means will it be transferred to a third party. To this end, your kind cooperation in furnishing correct and reliable information will be highly appreciated.

The researcher would like to take this opportunity to thank you in advance for your kind cooperation and assistance in responding to following questions.

1. Year of company establishment _____
2. Current Capital of the Company _____
3. How many employees do you have currently
   a. Permanent _____
   b. Temporary _____
4. Sales turnover by product in ton (Birr)

Product	2002/03 (1994/95)	2003/04 (1995/96)	2004/05 (1996/97)	2005/06 (1997/98)	2006/07 (1998/99)
Flour					
Pasta					
Macaroni					
Pastini					
Galleta/Hard Biscuit					
Biscuits (soft)					
By-product					
Total					

If sales data is not available, kindly provide production capacity & its actual utilization rate

Product	2002/03 (1994/95)	2003/04 (1995/96)	2004/05 (1996/97)	2005/06 (1997/98)	2006/07 (1998/99)
Flour					
Pasta					
Macaroni					
Pastini					
Galleta/Hard Biscuit					
Biscuits (soft)					
By-product					
Total					

5. Do you have flour mill?
    a. Yes
       If yes, what is its capacity per day or month _____
    b. No
6. Do you have wheat farm?
    a. Yes,
       If yes, please state yearly production of the farm _____
    b. No
7. In your opinion, which company is the market leader? Please indicate its name
   _____
8. Competition in your market is based on (put in order of importance from highest to lowest – 1st to 5th):
    a. Price
    b. Quality of product
    c. Packaging
    d. Promotion
    e. Availability of products
9. Please list down names of your brands _____
10. When is the last time you had new brand _____
11. Which of the following tools have been used to improve competitiveness (put them as 1st , 2nd, 3rd and 4th)
    a. Charge lower price for better market chare
    b. Develop new product
    c. Conduct Promotion
    d. Develop new market areas
12. How do you determine price changes (circle the best one)
    a. Follow the price changes made by competitors
    b. Agree with similar firms to change price
    c. Set price level above cost
13. If the market leader changes its price, do you also change?
    a. Yes
    b. No
14. Do you have Marketing & Sales Department at equal positions like other Departments?
    a. Yes,
    b. If no, which functional area handles the functions of marketing and sales
       _____
15. Which activities of marketing and sales your company focuses most? Please these activities
    _____
16. Which promotional elements do you use frequently (put from 1st to 5th stage)
    a. TV _____
    b. Radio _____
    c. Trade promotion/discounts _____
    d. Billboard _____

e. Free samples _____

17. How much on average do you spend on promotion per year? _____

18. Please rank in order of importance the reasons for under-capacity utilization of your company.

Reasons for under-capacity utilization	Rank
High demand of small sized products	
Brand switching of production	
Lack of market demand and fierce competition	
Lack of working capital	
Continuous supply of raw materials, packing materials	
Lack of spare parts	
Lack of skilled manpower	
Power cut	
Low level of production technology	

19. What are the major problems and challenges facing the food processing firms in Ethiopia?

_____

_____

Thank you,
Yifru Tafesse, MBA Student

Annex III. Consumer Preference Questionnaires for Pasta, Macaroni and Biscuits

Objective: the objective of this brief questionnaire is get information about your brand preferences of pasta, macaroni and biscuits. Your honest information is highly appreciated.

1. General Information

Age	
Sex	
Occupation	

2. Brand Preference	**I prefer the brand because of**								
Brand Name	Size in GM	Price	Quality	Availability	Advertisement	Ease of use/preparation	Other Reasons		
Vera									
Cheralia									
Hip Hop									
NAS Glucose									
Glory									
2B Glucose									
Choppy									
TM Glucose									
Abuwalad									
Smile									
Micky									
Lovely									
Others (Specify)									