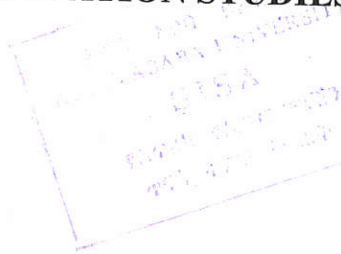


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**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
SCHOOL OF INFORMATION STUDIES FOR AFRICA**



**INFORMATION NEED OF WOMEN ENTREPRENEURS
IN ETHIOPIA: A CASE OF ETHIOPIAN WOMEN ENTREPRENEURS
ASSOCIATION MEMBERS**

A THESIS

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT
FOR THE DEGREE OF
MASTER OF SCIENCE IN INFORMATION SCIENCE**

**BY
ABEBE EJIGU ALEMU**

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ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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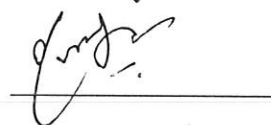
Ato Getachew Birru, Advisor



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Abstract

Women are the most disregarded members of the community in Third World countries. They are neglected in education, participation in the economy, politics, social and other cultural aspects of the country. They are also ignorant about the current information revolution and are far from information and communication technologies. This marginalization is the result of religious and cultural biases the community has on women and the conception of women on themselves.

However, concerned international and national organizations are currently putting efforts in increasing the participation of women in the economy, management, politics, and other activities.

Generally speaking, women are involved in every aspect of the economy, nevertheless their participation is very much significant in the informal sectors which provide subsistence income source for their livelihood. To improve their economic involvement and income, they have started to organize themselves under one umbrella, i.e., they have formed an association called Ethiopian Women Entrepreneurs Association, whose objective is to improve the standard of living of women entrepreneurs by providing the necessary assistance to them.

The Association has a mission of providing the necessary information to women entrepreneurs regarding investment opportunities, market potential, credit sources, training sources, etc. and disseminates it to them through mass media, workshop, seminar, trade fair, and so on. However, it is not functioning as stated in its term of

reference. To provide an important information service, a thorough study on the needs of women entrepreneurs is essential, but it is not conducted.

In this study, a survey of information requirements of sample women entrepreneurs is conducted and, based on that an appropriate database is proposed, a prototype is implemented, and important recommendations are incorporated.

ABBREVIATION

AISI	African Information Society Initiative
ERD	Entity Relation Diagram
EWEA	Ethiopian Women Entrepreneurs Association
FCSC	Federal Civil Service Commission
OAU	Organization for African Unity
UNECA	United Nations Economic Commission for Africa
WINS	Women Information Network for Swazi's Women

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Entrepreneurship is an important element in the development of a nation. In Third World countries, however, their number is discouraging. From this, the proportion of women is insignificant because the participation of women in business is negligible. To increase the involvement of women in business they have established the Ethiopian Women Entrepreneurs Association with the objective of improving the life of women and empowering them in the economy.

Information is getting higher importance in business as money, labor and other resources. Nevertheless, women lack awareness of it, and they are lagging behind in appreciating information and communication technology. Therefore, among others, EWEA is responsible for providing information to women entrepreneurs in Ethiopia.

In providing information to users, however, an understanding of the requirements of users is highly relevant. Nevertheless, EWEA has never conducted such user requirement survey. But in this study, survey on user requirements was undertaken by taking sample respondents from the total members of EWEA. Based on that it is possible to understand the requirements of women entrepreneurs and an appropriate information provision system is recommended.

In this study, the concept of entrepreneurship, the importance of information for business enterprises, the concept of information seeking pattern, and women entrepreneurs and their

status in Ethiopia are discussed, the existing system analysis and the result of the survey, data base design and prototype development reports are incorporated.

1.2 Statement of the Problem

Information has become a critical part of successful economic development for individuals, businesses and communities (Mchombu, 1993). Lack of access to information is responsible for the inability of women entrepreneurs to cope with current changes in technology, consumer preferences or generally current competitive environment. Accordingly, the major problems of entrepreneurs in Ethiopia whether they involve in manufacturing, import or export, service giving or other, are the following:

1. They are not fully aware of the present day industrial information services or do not know how to obtain and where to get the required information. Hence, the problems that they encounter include (Gezahegn, 1995; Bekele, 1992):
 - lack of awareness of potential areas
 - lack of awareness of transportation and communication charges
 - lack of awareness of custom rules, regulations, and tariffs
 - lack of awareness of and difficulty in identifying currency exchange rates, insurance and financial aspects like way and type of payment letters of credit, export credit guarantee, availability of loan and its interest rate,
 - absence of accurate statistical and other relevant information.
2. The entrepreneurs' perception of the problems is totally different. They do not associate the problems as information related but as marketing, technical, financial, etc.,
3. Wide spread lack of awareness. Most African women appear not to be adequately aware of the importance of the emerging information revolution (UNECA, 1989).

4. There is little motivation to use information centers. To make information systems and services of real use to entrepreneurs, information workers should systematically study their problems and adapt services accordingly.

However, in Ethiopia such type of information is lacking. The information needed is regarding market size, financial sources, services of support institutions, resource potential (raw material and manpower), appropriate technology sources, investment opportunities, opening of business letters and letter of credit, etc. Therefore, all these require establishment of information systems and centers with strong networks among institutions involved in promotion and development of women entrepreneurs.

Generally, to be an active and efficient entrepreneur, information is very important. Nevertheless, the absence of ready made entrepreneurial information is a critical problem and perhaps a threat for not having sufficient numbers of entrepreneurs in Ethiopia.

Therefore, this study is intended to investigate the information needs of women entrepreneurs in Ethiopia, and to design an appropriate information support system to alleviate their information problems.

1.3 Justification of the Study

Information is required at all levels of management and for all types of people for planning, decision making and problem solving. Provision of accurate and timely information requires the establishment of well organized and properly functioning information system that operates with maximum efficiency. Besides, Ethiopia is riding on the way to development. In so doing, the government of Ethiopia is promoting entrepreneurs for the facilitation and activation of the

development process. Nevertheless, the involvement of women in this area is low or insignificant. Therefore, this study is important in promoting and encouraging women entrepreneurs to open their eyes to business areas by providing a system that helps them in getting whatever information they need.

1.4 Objectives of the Study

1.4.1 General

The major objective of this project is to investigate the information needs, exchange patterns, the information provision system of women entrepreneurs in Ethiopia, and to recommend an appropriate information support system to alleviate their information problems.

1.4.2 Specific

The specific objectives of the project are the following.

1. To investigate the information needs and seeking pattern of women entrepreneurs
2. Analyze the existing system.
 - To study the information requirements of the internal and external users of the system.
 - To investigate the problems faced by the internal and external users of the system.
 - To study the flow of information within and outside EWEA,
 - To identify the input, process, and output information of EWEA,
 - To identify the components of EWEA that need to be automated.
3. Suggest alternative solutions to the problems of the existing system and to select the appropriate one depending on the time and resource limitation of this study.

4. Based on the selected solution, to design an appropriate database system to the problems under investigation.
 - Determining input, process, and output information.
 - Developing a sample database.
 - Developing a prototype interface.
5. Determining hardware and software requirements.

1.5 Scope and Limitation

Although this study tried to identify the information requirements of women entrepreneurs and to develop an appropriate database to satisfy their requirements, the developed database and the prototype is only to provide detailed information on investment opportunities due to time, financial and other constraints.

1.6 Methodology

As it has been already indicated under the objective section, the aim of this project is to investigate the information needs of women entrepreneurs and to develop an efficient information storage and retrieval system. This requires a thorough knowledge of the current information needs, existing system, its problems and end-users' expectations of the system. To this end, a number of systems analysis and design methods are available to the analyst, but no single method is capable of serving the purpose unless it is supplemented by other methods. Thus, taking the above facts into account, I employed a combination of fact finding and structured systems analysis techniques so as to analyze the existing system, design the target system and to document findings.

1.6.1 Fact Finding Methods

Document Analysis

A document is any written material that contains information about the phenomena being studied. It includes forms, letters, inter-office memos, reports, books, and even maps and

pictures. Document analysis provides information on how things are actually done or how the existing system operates. Therefore, researchers will review such documents as reports, manuals, organizational charts, forms, files, letters, interoffice memos, and so on. By doing so, researchers will also be able to familiarize themselves to the data elements and terminology used in the existing system.

Documents were analyzed in order to know how they are working, reports were also revised and documents containing organizational structure were also reviewed.

Questionnaire

A questionnaire is a formalized set of questions used for obtaining information. The major method exploited in this study was survey the method. The survey contained six-page semi-structured questions. (See Appendices I & II)

Interviews

An interview brings the analyst into contact with the end-users and management of the system. It enables the analyst to probe respondents for more specific answers and to repeat or elaborate vague questions. The interviewer can also observe non-verbal behaviors and assess the validity of the respondent's answers. Therefore, in this study, officials of EWEA and related personnel were interviewed. (See the interview guide on Appendix III)

Observation

On site observation was carried out to look into how they are working, and to have a look at their information and communication technologies.

1.6.2 Structured Systems Analysis Techniques

The following techniques were used for representing the flow of data in the existing system:

Data Flow Diagrams

Data Flow Diagrams are graphical representations of a system and show the flow of data to, from, and within the system, and the processing performed on that data. In order to clearly understand the system's inputs, processing and their relationships, and to document the results of its investigations, I employed a data **flow diagram**.

Entity Relationship Diagram (ERD)

Entity-Relationship diagram is a popular data modeling tool used for documenting the system's data, independently of how that data is used. Therefore, ERDs were used to identify, analyze, and model the data that were required by the target system.

1.7 Organization of the Thesis

The thesis is divided into six chapters. The first chapter provides introduction, statements of the problem, significance, objectives and methodology adopted to do the thesis. The second, third and fourth chapters are literatures reviewed on entrepreneurship, information and women in Ethiopia, respectively. The fifth chapter consists of existing system analysis report, data analysis report, database solution, prototype development and testing of the prototype. Finally, the last chapter encompasses conclusions and possible alternatives.

CHAPTER TWO

THE CONCEPT OF ENTREPRENEURSHIP

2.1 Definition

Industry and commerce constitute the pillar of a modern economy. The economic and social growth of a country depends up on the pace of industrial and commercial activities. The development of industry and commerce in turn depends upon the entrepreneurial resource available in a country. Therefore, nations want to have a dearth of entrepreneurs in order to increase their economic growth and development.

Countries always design policies and strategies for their economic development and growth. Among others, having favorable and conducive environment for the growth of entrepreneurs is one, which results in prosperity and its absence in turn results in poverty. To complement this, Vice Minster of the Ministry of Trade and Industry (Ethiopian Women Entrepreneurs Association, 1998) stated:

Entrepreneurship has a special place in the industrial development process of any given economy. The development process depends upon an adequate supply of entrepreneurs who are capable and willing to undertake the diverse entrepreneurial activities and functions. Deficiencies in supply, particularly of indigenous entrepreneurs, would act as a serious setback in the development process. P.3

Who are these entrepreneurs? The word entrepreneur is a difficult term, which lacks a universally accepted definition. Andualem (1995) explained

We cannot identify an entrepreneur until we identify what 'Entrepreneurship' is. So what is exactly an Entrepreneurship? Is it risk taking? Or is it initiating an activity? Or is it mobilizing resources to make profit? Or is it self-employment? Or is it creativity? Or starting one's own business? Or what?

The term is usually a misused and confused one and Andualet (1997) quoted various definitions of it in his writings.

1. A popular definition is that “ Entrepreneurship is the process of doing something different for the purpose of creating wealth for the individual and adding value to the society.”
2. Another scholar, Rao, described ‘Entrepreneurship’ as a creative and innovative response to the environment where such responses can take place in any field of social endeavour - business, industry, agriculture, education, social work, and the like.
3. NIESBUD defines Entrepreneurship as the quality required to become entrepreneur, which refers to identifying and innovating ideas and services, mobilising resources, organising production and services and finally marketing them, covering the risk by constantly trying for growth and excellence.
4. Setty defines it as a purposeful activity indulged in initiating, promoting and maintaining economic activities for the production and distribution of wealth. Also entrepreneurship is defined to mean the willingness to exercise initiative and take considerable risk to operate one’s own business.
5. Dolan and Vogt (1980) defined entrepreneurship as a unique form of business activity that consists in inventing new ways of doing things, being alert to new opportunities taking risks, overcoming constraints and developing new products and organisations.

Generally, entrepreneurship consists of four crucial elements (Andualet, 1997)

- The ability to perceive an opportunity
- The ability to commercialise the perceived opportunity
- The ability to pursue it on a sustainable basis, and
- The ability to pursue it through systematic means.

On the basis of the definitions, an entrepreneur is a person endowed with the qualities of judgement, perseverance and knowledge of the world as well as of business. An entrepreneur is someone who recognises new business opportunities and organises technology and labour to take advantage of them (Dolan & Vogt, 1980).

Although entrepreneurship is rich in definition, for our purpose, it can be the process of doing new things for the purpose of creating wealth for the individual and adding value to the society.

When we come to developing nations like Ethiopia, the term has to be defined based on some grounds. Entrepreneurs in many developing countries are usually owners of small businesses. However, the word 'small' is an elusive concept to define because small business is defined differently in various countries by using different qualitative and quantitative measures (Muluwork, 1997).

There are scholars like Kilby who deny the application of entrepreneurship as an innovational attribute to developing countries because of the following reasons (Abdela, 1996):

- a. The presence of immense backlog of new technology products and unapplied production technologies.
- b. It is thought that the entrepreneur does not have to create his own demand as imports and products of foreign enterprises have already mapped out large markets.

However, entrepreneurship as perceiving opportunities, high need of achievement and willing to take risks, is applied to developing countries (Muluwork, 1997). Entrepreneurial functions may range from the perceiving opportunities to activities such as control and supervision,

which are normally regarded as managerial functions. It has been argued that entrepreneurship in developing countries covers more functions than in developed economies because of the less developed market for managerial services (Engleman, 1994).

Therefore, the entrepreneurs, in many cases, do not differ from managers because they are considered to combine both ownership and managing activities. This, however, is different in developed economies because the entrepreneurs of those countries are usually regarded as risk taking and profit making persons than as managers though they could be managers also in some cases (Muluwork, 1997).

2.2 The Role of Entrepreneurs to the Economy

In the development of an economy, the role of entrepreneurs is vital since they bear risks, innovate, hire and manage labour force and open markets. It has been regarded by many as one, perhaps the most significant factor in the process of economic growth and development, which results in economic differences among countries, i.e., countries having a number of entrepreneurs are developed, whereas countries having small number of entrepreneurs are poor.

The Schumpetrian model of development visualises the entrepreneur as the key figure in economic development because of its prominent role in innovation. According to this model, an entrepreneur is a dynamic agent of change and a catalyst who transforms physical, natural and human resources into production possibilities.

Some explained that economic growth was bound to be slow unless there was an adequate supply of entrepreneurs looking for new ideas, willing to take the risk of inducing them.

Zenkin (1961) expressed the importance of entrepreneurs stating “No entrepreneur No development”.

To summarise, there is a common agreement that the development of a country's economy depends to a great extent on the number of entrepreneurs it possesses.

2.3 Importance of Entrepreneurs to Developing Economies

Entrepreneurs are important to developed as well as for developing nations (Neelameghan, 1992). They contribute to the economy in the following ways:

- Capital saving: mobilisation of private savings and harnessing the productive purposes
- Value added generation,
- Employment generation,
- Utilisation of indigenous resources more effectively and productively,
- Dispersal of industries in various regions of the country, hence reducing the concentration of industries in urban areas and promoting regional balance in economic growth,
- Income distribution,

2.4 Problems of Entrepreneurs

Entrepreneurs are suffering from various problems like:

- Lack of control of outside environment, difficulties in obtaining credit and capital, and have no special bargaining strength in the market.
- Unbalanced management skill and competence resulting in internal problems.
- Lack of or poor information facilities, particularly about business and market condition, developments in technology, and other uncontrollable.
- Poor infrastructure is an obstacle to entrepreneurship development. According to Taye (1997), this problem takes three forms:

1. **Lack Information.** Lack or shortage of information is a major problem especially at this juncture when the epoch is considered as the “information age” under the slogan of “information is power”, is an acute problem to entrepreneurs. The collection, packaging, and dissemination of information for investment purposes barely exist. Owing partly, to lack of information on possible investment opportunities, entrepreneurs are facing stiff competition in similar business activities concentrated in limited geographical areas. It is a truism that where information is lacking, the drive for new ventures, the stamina to take calculated risks, the exercise to speculate business and entrepreneurial foresight is hindered or arrested.
2. **Shortage of promotional agencies.** Institutional infrastructure that provides training, research and advisory services to the private sector are not expanded or strengthened.
3. **Lack of modern business practices.** Attempting to start a business without feasibility study and thus without a business plan has resulted in stiff competition among similar business activities. This has led entrepreneurs in similar activities, in a concentrated manner, to mutual death by allowing giant companies to swallow them.

CHAPTER THREE

INFORMATION NEEDS AND INFORMATION SEEKING PATTERN

3.1 Information

Irrespective of the types of societal developments (primitive, slavery, feudalism or capitalism), the types of occupation of people (farmer, hunter, merchant, housewife, etc.), information has been important. Above all, its importance has been appreciated since 1950. The existing societal development is referred to as post-industrial society especially countries like the United States, Japan, and Western Europe. Economically, it is marked by a change from a goods-producing society to a service economy by the pre-eminence of a managerial, professional and technocratic class. In the previous societal developments, information was ancillary, or an optical extra not even a commodity; it is a mode of perceiving the very fabric of our vision and a shaper of our world.

These days, information is becoming an important and essential part of human life without which life tends to be difficult to lead. The development and advancement of the society pose an effect on the consumption and demand of information.

3.2 Information Need

Information is an important resource for an individual, business firms, non-business organizations and for the community at large, and it is bought, sold, traded, exchanged and consumed (Artandi, 1997). Providing irrelevant information for the user could result in cost, in time and money. Therefore, identifying the user and their information requirement is an important element in preparing an efficient and effective information storage and retrieval system. Nevertheless, 'Information need' is a difficult concept and covers a wide variety of

activities. To the contrary, providing irrelevant information to the user could result in cost in time and money. Therefore, identifying the user and their information requirement is an important element in preparing an efficient and effective information storage and retrieval system. Nevertheless, 'information need' is a difficult concept and covers a variety of activities. Accordingly, Wilson described the scope of user studies by using the following diagram:

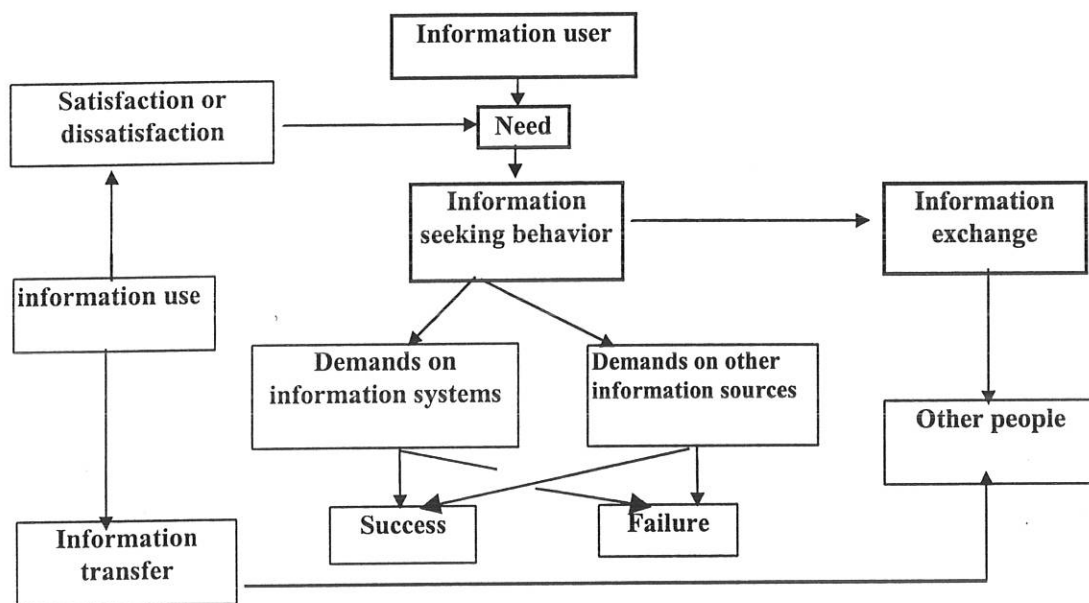


Fig.3.1 scope of user study

Source: Fifty Years of Information Progress, B.C. Vickery (1994).

Regarding the need assessment of information in Ethiopia, a few studies have been made and a few models of providing information are also adopted. A study has been conducted by Gezahegn (1995) and he developed an information support system for import-export trade in Ethiopia which was intended to improve the foreign trade structure of the country through a sustained supply of trade information to meet the requirements of potential export- import information users.

Bekele (1992) has also conducted a user study to make an investigation on the information needs of public manufacturing enterprises in Ethiopia. Actually, both of them have identified that

business communities in Ethiopia have never associated their problem with the absence of information. Consequently, a few studies are available on the information needs of communities that are both business and non-business.

As far as study on women in the area of information is concerned, Nxumalo (1995) had undertaken a research on the importance of network for the provision of information for the Swazi's women. The overall objective of her work was to formulate a plan for developing an information network to support research, decision making, planning, implementation and monitoring of projects and activities relating to women in development in Swaziland. The study reflects the importance of Women Information Network for Swazi's Women (WINS). No investigation was conducted on their information requirement.

Information need is a result of some unresolved problems. It often arises when an individual recognizes that his/her current state of knowledge is insufficient to cope with the task at hand, or to resolve conflicts in a subject area (or to fill the void in some area). Points on information need include the following:

- It is a relative concept - it depends on various factors and it is dynamic.
- It changes over time.
- It varies from person to person, job to job, subject to subject, organization to organization.
- Quantification (measurement) of information need is difficult.
- It often remains unexpressed or poorly expressed
- It changes up on receipt of some information.

3.3 Information System User

A user is the focal point of all information retrieval systems, whose sole objective is to transfer information from the source (database) to the user. The nature of the user determines the nature of information to be collected, the nature and level of analysis to be made in order to store the information and the nature of user interface to be designed so that users can interact with the system easily in order to search and retrieve the required information. An understanding of the nature and members of users, their activities in relation information requirements, information seeking behavior, etc., will help an information manager develop an appropriate information retrieval system.

Users of information depend up on the nature of information; they may be limited by the organization they work for, by the nature of work or profession, by age, sex or other social groups, and so on.

Users of information are categorized into

- Actual users: these are users who are using the information service at a given time.
- Potential users: these are users who are not yet served by the information service.
- Expected users: these are users who not only have the privilege of using the information service, but also have the intention of using this service.
- Beneficiary users: these are users who have derived some benefit from the information service.

Three important groups of users:

- Researchers in basic and applied fields
- Practitioners and technicians
- Managers, owners, planers and decision-makers.

3.4 Information and Business

Information is an important resource for every undertaking. Its importance for business organization is higher. Business organizations need to know the needs, tests, and preferences of their consumers; the position of their suppliers and creditors since these are essential for companies to effectively perform their business activities. In order to operate properly in a business environment, it is necessary to have adequate information.

Having sufficient information in an organization (Kottler, 1989):

- (i) avoids reliance on intuition executive judgement and past experience.
- (ii) reduces risk by acquiring information prior to implementing a decision. For instance, potentially expensive failure may be averted before cost out-
- (iii) lay becomes high, a firm may change a product having negative image, etc.
- (iv) helps to know consumer needs, preferences, tests, attitudes and future behavior
- (v) helps to adjust company operations with the uncontrollable market environment such as inflation rates, resource shortages, etc.

Adequate business information will enable a firm to coordinate or integrate its strategy. It is also helpful in selling and marketing a product because it can be used to enhance a firm's credibility and it is essential to determine the marketing success or failure of firms. The following diagram describes the relevance of information for businesses.

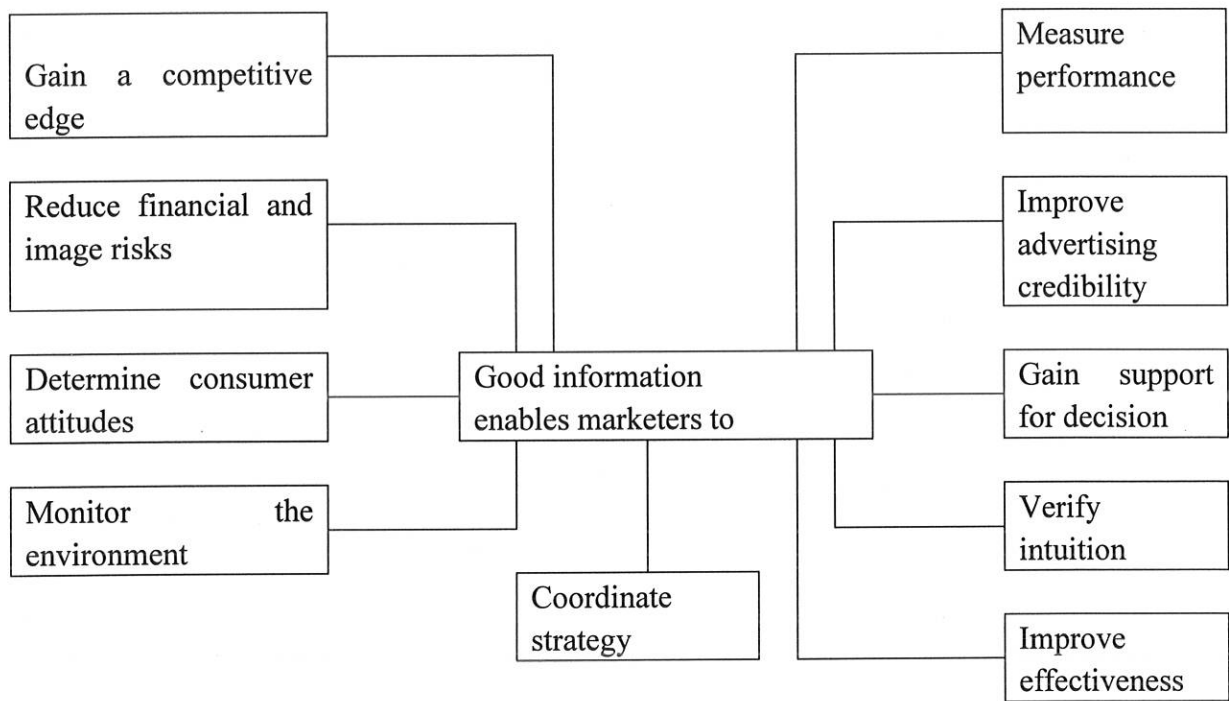


Fig. 3.2 Reasons for Obtaining Information
 Source: Evans & Berman: Marketing, 4th ed., 1990.

3.4.1 Business

Definition: Business is a combination of industry and commerce, both of them are oriented in achieving profit objectives. They need money (capital), skill, raw materials, labour (people) to perform their tasks properly and efficiently. These business enterprises nowadays are highly dependent upon the volume and quality of information they have. Information is as important as raw material, labor and capital for businesses. Its importance is higher especially for business enterprises. It determines their success and failure.

Human beings are being involved in a number of activities, such as political, social, economic, religious, etc. Economic activity is the most fundamental one in which numerous people are engaged in it. The aim of these economic activities is the satisfaction of the material requirement of human beings in life. These requirements can be needs or wants of human beings. These needs could be food, shelter, clothing, medical care, land, etc.

The wants of human beings are satisfied with goods and/or services. A nation's resources are used to produce goods and services that will meet people's needs and wants. These goods and services are produced directly or indirectly. Direct production occurs when human beings try to satisfy their needs and wants entirely by other people. This type of production is inefficient, causes poverty and it is hardly practical. Indirect production occurs when people cooperate with others in the production of goods and services. It is an efficient way of production, and it results in the widespread of industry and commerce-business.

In our complex society, it is a common phenomenon for every one to search, deal and exploit every means and opportunities to survive. Human beings strive in creating, exchanging, raising, and manufacturing of products. The production by his/her own effort can supply very small part of his/her needs and wants, he/she is supplied the greater part of his/her needs by exchanging with the production of others.

The activity of human beings can be categorized into two, economic – production, exchange, distribution- and noneconomic – political, social, cultural, religious. To the broad category of economic activity, business is regarded as the central or major and core part of it.

The term business has got various definitions. However, these definitions are mutually supportive and complementary. Some of them are the following:

- Business is the exchange of goods, services or money for mutual benefit or profit.
- It is defined as the activities of individuals or groups that are involved in developing producing, and distributing the goods and services needed to satisfy other people's need and desires.
- It is defined as a purposeful activity, an immediate task, series of activities requiring time

and effort, a mission or an objective.

- As an economic activity, business can be defined as a regularly carried out and organized production and exchange of goods and services undertaken with the objective of earning profit and acquiring wealth through the satisfaction of human needs.
- It can also be referred to all the commercial and industrial activities that provide goods and services to maintain and improve the quality of life.

The term refers to a wide variety of activities; to mention a few:

- The farmer who tills the land and sells his produces
- Factories that process input and transform them to outputs and distribute them to users through selling.
- Various types of wholesale and retail shops
- People involve in import and export trade
- The tailor, shoe maker, the weaver, tea room, pastry, theater, film, etc.

Businesses engaged in production of goods and selling of services or sale of commodities or other related financial transactions but they are not identical in their philosophies and operations.

They are different in size, type, and degree of profitability. Nevertheless, they have common characteristics.

- **Dealings in goods and services.** They involve in producing and exchanging marketable goods and services
- **Sale, transfer or exchange for value.** All businesses are directly or indirectly concerned with transfer or exchange of goods and/or services for value.

- **Recurrence of dealings.** Business is not a one-time activity; it is undertaken regularly or continuously.
- **Profit motive.** People start business to gain over and above what they invested or expended through anticipating and satisfying the needs and wants of their customers. This gain or surplus is known as profit.
- **Element of risk.** Businesses are not always profitable, there is a possibility of loss on return on investment, which is known as risk. Risk is always associated with business. Any business involves some element of risk and uncertainty. This risk or uncertainty is highly associated with availability or absence of reliable information in the business.

Business is broadly categorized into two:

1. **Industry.** This deals with the making or production of goods or services. It can be extractive, genetic, construction and manufacturing.
2. **Commerce.** The exchange and distribution of goods and services to users/customers. It consists of trade - the act of buying and selling or exchange or transfer of goods. Trade can be domestic, i.e., wholesale or retail, or it can be foreign trade, i.e., export trade and/or import trade.

Commerce is also composed of aids to trade - banking, insurance, transportation, packaging, advertising and warehousing.

CHAPTER FOUR

WOMEN IN ETHIOPIA

4.1 Status of Women

Women, in general, are the most exploited and list privileged members of the community in the developing countries, and yet they sustain many families in these developing nations. The majority of women live in the rural areas where their major tasks are farming, water fetching, childcare, cooking, food supply and home management. However, they are marginalized in the distribution of income and supply of resources.

Women in Ethiopia are vital human resources for development since they constitute about half of the population and women account for a large percentage of the agricultural labour force in developing countries (Meseret, 1998; Mahistente, 1998). It is estimated that 35% of the active population, and nearly 54% of the urban population in Ethiopia are women. Like any other developing countries, women in Ethiopia are responsible for shouldering the major part of the domestic tasks. They are said to be involved in as much as 48% of the nation's food production (Meseret, 1998).

Despite their numerical dominance in the population and immense contribution to the economy, women tend to be seen as invisible actress to the development of the nation. Ethiopian women are victims of economic and social deprivation and suffer from extreme poverty. They are the poorest, overworked and most oppressed part of the society (Meseret, 1998; Mahistente, 1998). The country consists of considerable number of the society that are grouped under absolute poverty, among others women are the major part of it (Hayat, 1997).

Although Ethiopia is composed of various ethnic groups, the role in which women are entitled to play in society is that of a mother, a wife, and a housekeeper. While this represents the general form of the gender-based division of labour in society, female responsibility extends beyond the confines of the homesteads.

Work in the household is usually regarded as part of women's work rather than an occupation to be accounted for both in the household and the national economy. Outside the house, women are 2/3 less likely than men to get wage employment. Only one of 10 women in the labour force in sub-Saharan Africa are employed (Mahistente, 1998).

4.2 Women Entrepreneurs

According to Rao (as quoted by Andualem, 1995), entrepreneurship is described as a creative and innovative response to the environment where such responses can take place in any field of social endeavor, business, industry, agriculture, education social work, and the like. He regarded it as creating new things or modifying the already existing ones.

Therefore, an entrepreneur is a person endowed with the qualities of judgment, perseverance and knowledge of the world as well as of business (Muluwork, 1997). As far as women entrepreneurs are concerned, the Federation for Women Entrepreneurs in Africa has reached a consensus by encompassing the following items in the definition (Meseret, 1993):

1. any woman in the process of conversion of raw materials into a usable, semi-finished or finished goods, e.g. food processing or manufacturing.
2. any woman in the formal and informal sector who engages in economic activity on a full-time basis as a career option,

3. any woman who utilizes skills and resources for the provision of economic and social services, e.g. dry cleaning, school ownership, hair dressing, fashion designing, catering, etc.
4. any woman moving from the informal economic sector to the formal economic sector,
5. woman cooperative society geared towards profit-making and reinvestment.

Nevertheless, women in the Third World countries are not fully participating in the economic development process (Nxumalo, 1992). Women constitute above 50% of the population, do 60% of the job, and earn one-tenth of the income and own 1/100 of the assets. They have more limited access to information technologies, media, and communication facilities (AISI, 1996). There is also lack of readily available information on women in society, culture, and economy. However, information on women is needed for proper understanding of societal problems affecting women and developing policies, programs as well as projects; researchers also need information on women for analysis of women's issue; teachers and students need information and data in their studies and to increase awareness at all levels on the potential contribution of women to the development process (Rahel, 1997).

Like any developing country in Africa, Asia and Latin America, the economic involvement of women in Ethiopia has been undermined due to socio-cultural, political and economic factors. In addition, lack of information on and awareness of what women do in Ethiopia has influenced what to nationally plan and develop projects (T/mariam, 1989).

Women in Ethiopia, like any other country in Africa in general, are limited to household activities and are considered reproductive elements. Their role has been rearing children, looking after husbands, relatives, and working in the kitchen. Women have been left behind in the development programs. Because of little value given to their contribution, what they actually do

for the development of the country has not been appreciated for a long time (Rahel, 1997; Nxumalo, 1992).

However, things are now changing, i.e., the Ethiopian government has designed various policies and strategies to increase the participation of women in development. It is believed that without the involvement of women, efforts toward development remain fruitless. Among others, the current policies include:

1. improving the political, social, and economic status of women and ensuring their equal rights and benefits in the country's development,
2. insuring the all round participation of women,
3. avoiding harmful traditional attitudes and practices with special focus on the rural areas,
4. establish organizations which assist the implementation of the policy.

Among the various organizations, establishment of Ethiopian Women Entrepreneurs Association is one, which is set up in Ethiopia, and it is highly responsible for promoting and encouraging women to participate in every aspect of the economy. Ethiopian Women Entrepreneurs Association (EWEA) is one of the strongest associations, which is highly functional and responsible for promoting women to participate in business by providing entrepreneurial information to them.

Information has become a critical part of successful economic development for individuals, businesses and communities (Mchombu, 1993). Lack of access to information is responsible for women entrepreneurs to cope up with current changes in technology, consumer preferences or generally current competitive environment.

Accordingly, the problems of women entrepreneurs in Ethiopia are: lack awareness of the present day industrial information services, lack of awareness of potential areas of investment, lack of awareness of transportation and communication charges, lack of awareness of custom rules, regulations, and tariffs, etc; they do not associate their problems to lack of information; most African women appear not to be adequately aware of the importance of the emerging information revolution.

The above problems are chronic for women as compared to other parts of the society. Women in Ethiopia had low political, social and economic status. Opportunities like education and access to information were limited for women, property ownership rights for women were absent. However, now things are changing and the policy states that political social and economic development cannot be achieved without women's participation. As it was coined by President Negaso Gidada that women have to play a prominent role in economic development and have to acquire education and information since these two are the 'key for economic empowerment' (The Ethiopian Herald, No.30, 1998).

Effective and efficient policies and action mechanism for the promotion and encouragement of women participation in the economic development in the region cannot be made in the absence of reliable and accurate information. Plans and policies should be backed by appropriate information.

However, in Ethiopia organized business information lacking. This is evidenced by the interview made in EWEA. They are facing problem of co-ordinated and organized information that could serve member women entrepreneurs and other interested people.

It is believed that to be an active and efficient entrepreneur, information is crucially important. Nevertheless, absence of ready made entrepreneurial information is a critical problem and perhaps a threat for not having sufficient numbers of entrepreneurs in Ethiopia

4.3 Women in the Informal Sector

Ethiopian women are working in both the formal and informal sectors. They are dominant in the informal sector. The informal sector can be defined for the purpose of this study as businesses:

- a) Which are mainly engaged in marketed production,
- b) Which are not registered companies or co-operatives,
- c) Which have no full written book of accounts,
- d) Which have less than ten persons engaged in the activity, and
- e) Which have no license.

The informal sector is a home base or individual establishment operated by the owner with few or no employees. In developing countries, in general and in Africa in particular, the informal sector plays an important role in providing millions of people who would otherwise have no means of support with a livelihood and income generating opportunities. This sector has made invaluable contribution to economic and social life in Africa, providing income and services to the millions who cannot get employment in the formal sector.

CHAPTER FIVE

EXISTING SYSTEMS ANALYSIS, DESIGN AND PROTOTYPE DEVELOPMENT

5.1 Existing Systems Analysis

5.1.1 Background

Ethiopian Women Entrepreneurs Association (EWEA) was founded on January 30, 1992, with a special assistance of UNECA/ATRCW AND the 1985 Nairobi Foreword-Looking Strategies of OAU Head of States declaration.

Purpose: EWEA is a non-profit, independent, non-partisan and free Association of women in Ethiopia, formed to promote and develop the interests of its formal and informal sector members and Women Entrepreneurs in general.

Legal status: it is registered legally according to the Ethiopian Civil Code of 1960. The concerned Article No. 404 enumerates the duties and responsibilities. The EWEA stipulates to abide by the rules and regulations stating that the Association as a grouping formed by women entrepreneurs with a view to obtain a result other than the securing or sharing of profits.

The EWEA Head Office is located in Addis Ababa, and branch offices will be opened in all regions of the country.

OBJECTIVE:

General. The general objective of EWEA is improving the conditions of the life of Ethiopian women entrepreneurs in general and that of the member businesswomen in particular. Its general aim is to play an active role in improving and promoting the quality of the life of the

Ethiopian Women Entrepreneurs by enabling them to participate in the decision making process as well as improving their modern management skills.

Specific objectives. These include

- To freely and voluntarily organize Women Entrepreneurs and potential entrepreneurs with a view to improving and reinforcing the structures of their activities.
- To serve as a forum where the EWEA with the formal and informal sectors, exchange ideas, discuss their problems, share their experiences, design and formulate strategies regarding their business.
- To initiate, encourage and promote training for both formal and informal sector members, especially for 'Gulit' women to build shelters and organize a scheme for credit loans, for the development of their respective business as well as to contribute their share to the over all economic development of the country.
- To provide forum for the exchange of ideas, views, experience, and information between entrepreneurs, traders, businesswomen, agriculturists, industrialists and other professionals so as to improve the professional competence and management of their informal and formal sector members.
- To serve as a center where new projects and business opportunities are identified, assessed, analyzed, and developed for the benefit of the members.
- To assist Ethiopian rural, traditional women entrepreneurs and 'Gulit' women, who are informal members, to organize themselves and improve their working methods efficiency.
- To make market research and studies with local, continental and international for the benefit of the EWEA members.

- To endeavor and do every possible thing for the promulgation of economic, financial and labour laws as well as rules and regulations that are beneficial for trade, business and the development of the country's economy.
- To organize and/or participate in local, continental and international exhibitions, trade fairs, bazaars, conferences and expos.
- To organize seminars, workshops, exhibitions, trade fairs, bazaars, conferences and study groups for the benefit and improvement of the EWEA member's capacity and management skills.
- To deal with all government authorities on all common problems and set-backs of the EWEA members.

MEMBERSHIP: EWEA is open to all Ethiopian Women Entrepreneurs Irrespective of their ethnic origin, religion, or socio-economic conditions against the payment of membership fee.

Fields of Occupation of EWEA Members

a. Formal sectors

Occupation	Number	Percentage
Industry	35	6
Handicrafts	65	11
Wholesale & Retail Trade	156	28
Services	164	32
Imports	80	13
Exports	50	10
Total	550	100

Table 5.1 Fields of Occupation of EWEA Members

b. Informal sectors: the total number of members in the informal sector is 4000 including 'Gulit' and low level traders.

ORGANIZATIONAL STRUCTURE:

The Ethiopian Women Entrepreneurs Association has 12 employees, including the President.

Its organization structure is depicted as follows:

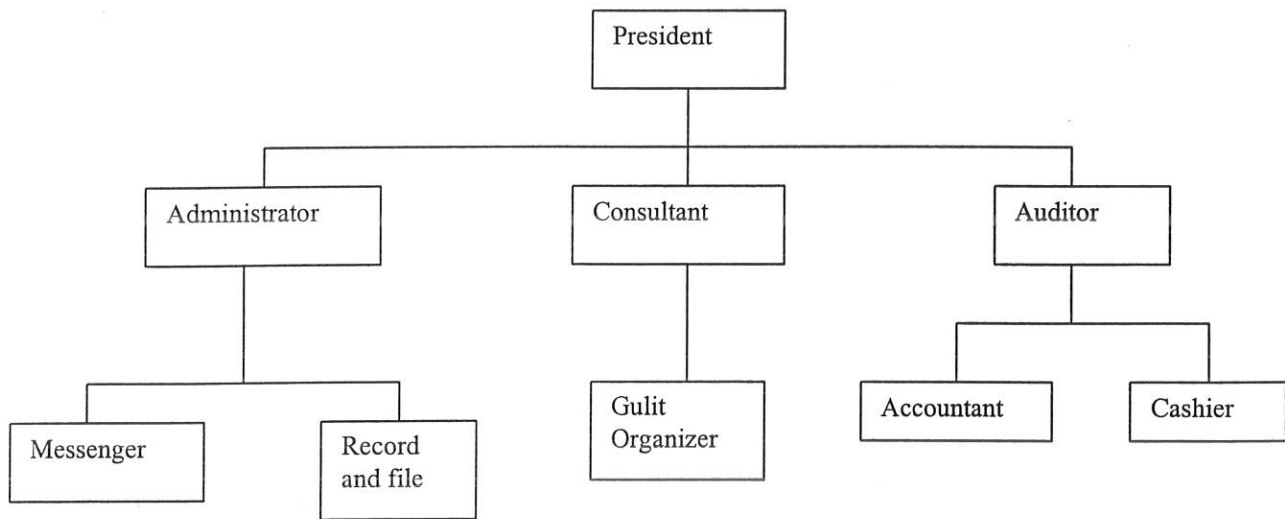


Fig. 5.1 Organizational Chart of EWEA

5.1.2 Data Acquisition

The Association by itself is an information center for Ethiopian women entrepreneurs regarding credit, training, market, demand, potential investment areas, business areas that are highly occupied by business people, custom rules, etc. Therefore, the Association digs every source to obtain the above-mentioned information. Accordingly, the sources of information are the Chamber of Commerce, Government Ministries like the Ministry of Trade and Industry, Investment Office, Customs Authority, training offering organizations, etc.

Table 5.3 Member Categories of EWEA

<i>Type</i>	<i>Total</i>	<i>Sample</i>
Formal	<u>550</u>	<u>110</u>
Industry	35	7
Handicraft	65	13
Wholesale & retail	156	31
Services	164	33
Imports	80	16
Exports	50	10
Informal	<u>4000</u>	<u>400</u>
Total		510

After distribution and dissemination of 510 questionnaires, 276 or 54.1% were returned back. Out of these 276 responses 65 are from the formal sector and 211 are from the informal sector. The data gathered was then summarized, ranked and subject to descriptive statistical analysis.

RESULTS

After analyzing these 276 responses, the following results are obtained. Findings are categorized into formal and informal. For both, the results of the study are categorized into three.

1. Personal information
2. Information needs and seeking pattern
3. Relation with women entrepreneurs association

5.2.1 Formal Business Sector

Personal Information

Personal information of the members in the formal sector looks like the following:

The majority of women entrepreneurs in the formal sector are economically active part of the population, i.e., 15-45 years in age (Table 4-2). The proportion is 84%. People in this age category of the society are so active that they have a high demand for information. They are also engaged in bringing up their children. Therefore, their information demand was not only for business information but also for information about personal care and family health. The age distribution of the sampled women entrepreneurs is as follows:

Table 5.4 Age Distribution of Sampled Women Entrepreneurs

Age	No. of respondents	percentage
15-30	32	49.2
31-45	23	35.4
45-60	8	12.3
> 60	2	3.1
Total	65	100

The distribution of sampled women entrepreneurs in the formal sector by educational level is depicted in Table 5.5 below:

Table 5.5 Level of Education of Sampled Women Entrepreneurs

Education	No. of respondents	percentage
None	-	-
Adult education	5	7.7
Primary Education	15	23.1
Secondary Education	22	33.8
Tertiary- Diploma	20	30.8

<i>Education</i>	<i>No. of respondents</i>	<i>percentage</i>
Tertiary- Degree	3	4.6
<i>Total</i>	<i>65</i>	<i>100</i>

A large portion of women entrepreneurs in the formal sector that were interviewed are in their secondary education (33.8%), it is followed by women having college diploma and certificate (30.8 %), primary education (23.1%), adult education (7.7%) and degree holders (4.6%). It has been, however, widely described in the literature part that women were left aside in education and information. To the contrary, significant proportion of women entrepreneurs could read and write. Therefore, both oral and written information dissemination media are useful and effective for accessing information. However, 7.7% are in adult education. This category of the population is limited in reading and writing skills. Therefore, for this category, oral information dissemination is highly important.

A large number of women (41.5%) are single, followed by 33.9 % married, 15.4% widowed, 4.6% divorced and 4.6% separated with the exception of single women entrepreneurs, other women are responsible for taking care of the family, managing their home, etc. (Table 5.6). Therefore, their information need is not only for their business but also for information related to home management.

The marital status of women entrepreneurs in the formal sector is reviewed in Table 5.6:

Table 5.6 Marital Status of sampled women entrepreneurs

Marital status	<i>No. of respondents</i>	percentage
Married	22	33.9
Single	27	41.5
Widowed	10	15.4
Divorced	3	4.6
Separated	3	4.6
<i>Total</i>	<i>65</i>	<i>100</i>

The reasons for establishing their business are various. The result revealed that for the majority of the respondents (46.2%), business is the only means of getting income. These women are fully devoting their time for the success of their business. On the other hand, 35.4% of the respondents indicated that it is supplementary to the existing income source, 23% of women are doing it just not to be idle, i.e., they do not have economic problems, and 4.6% responded that both are their reasons to establish the business that they are undertaking. Therefore, the majority of women have the only source of their income from their business. Therefore, these women need information highly because the success of their business directly affects their life.

The result also showed that 83.1% of ownership style are sole proprietorship and the remaining 12.3% and 4.5 are partnership and corporation, respectively. The majority of women entrepreneurs (95.4%) used their own money and 7.6% used credit and 3% used both as a source of capital. The amount of capital invested is as presented in Table 5.7:

Table 5.7 Percentage of Capital Invested on Their Business

<i>Amount of capital</i>	<i>No. of Response</i>	percentage
<10,000	15	25
10,000-50,000	30	50
50,000-150,000	5	8.3
150,000-250,000	7	11.7
> 250,000	3	5
Total	60	100

INFORMATION NEEDS AND INFORMATION SEEKING PATTERN

In general, women lack awareness of the current information revolution. However, according to the survey conducted, 80% of women need /seek/ information just like food, money, and clothing; whereas the remaining 20% of women entrepreneurs do not. So, there is an increasing trend in demand of information. The type of information they highly need is business information as shown in Table 5.8.

Table 5.8 Type of Information Needed by Women Entrepreneurs

<i>Type of information</i>	No. of responses	percentage
Business	35	53.8
Health	10	15.4
Personal	7	10.8
Both	13	20
Total	65	100

The reasons mentioned by women entrepreneurs for the need of information are: to know the demand of customers, to identify potential market areas, to know prices of items (business

and market information - 53.8%), to take care of their family (15.4%), to live with others (10.8%), and both (20%).

Women entrepreneurs tried to dig every possible source that helps them to get information. In so doing, the sources of information are shown in Table 5.9:

Table 5.9 Sources of Information

Sources of information	No. of responses	percentage
Religious institution	2	3.1
Government bodies (ministries)	6	9.2
Association (Women)	13	20
Mass media	24	36.9
Ceremonial sources like wedding, coffee, 'idir', etc	4	7.7
Others - chambers, social relations	8	6.1
Commination of sources	7	10.8
Both	5	7.7
Total	70-5=65	100

Mass media constitute the major means of getting information, which is 36.9%. It is followed by EWEA association (20%), government ministries and other organizations like Chambers of Commerce are also sources of information for women entrepreneurs. Cultural and ceremonial social interactions like 'Idir'; wedding, coffee, etc are also important sources of information. An 'Idir' is a traditional association of people that gives funeral and burial services to its members. The Ethiopian coffee ceremony is traditional ceremony that creates an opportunity for the collection of women to talk and discuss various social and economic issues.

Information can be presented in various forms such as printed (written), electronic, oral, script, etc. Accordingly, 30.8% of women entrepreneurs need the information to be in oral form; and 23.1 need the information in electronic form (Mass media, workshop, seminar are to be used to disseminate information).

Above all, completeness of the information is their problem. That is, 74.1 % of the information lacks completeness. Accuracy, relevance and timeliness of information are to some extent maintained as compared to the completeness of the information.

The characters of the information they get are shown on table 5.10:

Table 5.10 Characteristics of Information

<i>Information</i>	<i>Yes</i>	<i>%</i>	<i>No</i>	<i>%</i>
Complete	15	25.9	43	74.1
Accurate	34	58.6	24	41.4
Relevant	38	65.5	20	34.5
Timely	35	60.3	23	39.7

As far as the satisfaction of women entrepreneurs regarding information is concerned, 30 out of 65 (46.1%) were satisfied and the remaining 35 (53.9%) were not and take various measures to satisfy their demand. They took such measures as reading books, asking other people, consult with organizations, learn about information and 5 of them took no action to satisfy the need for information.

Based on the survey conducted, 50 (76.9%) of the respondents faced/encountered loss due to the following reasons (Table 5.11):

Table 5.11 Reasons for Acquiring Information

Reason	<i>Respondents</i>	<i>percentage</i>
Lack of money	3	6
Market	30	60
Information	8	16
Training	3	6
Others like rent	2	4
Combination	4	8
<i>Total</i>	<i>50</i>	<i>100</i>

The majority of the respondents (60%) replied that the lack of market was their major problem. This is because most entrepreneurs are based in the same geographical area, i.e., they are competing among themselves. This is due to lack of information about other areas of investment, or other places of better market opportunities. It is followed by the lack of information (16%), this shows that entrepreneurs are aware of the relevance of information for the success or failure of their business, 6% of the respondents explained that their problem is lack of training, 8% lack of market, money and information, 6% lack of money, and 2% have other reasons like rent, etc.

Women entrepreneurs encounter various obstacles in collecting or getting whatever information they need. Among others, the following are their major obstacles: 33.3% of the respondents faced lack of awareness about the sources of information; 16.7% faced lack of cooperation from sources; 28.3 encountered absence of organized information from sources; 16.7 % of the respondents complained that they lack awareness about the importance of information; and 5% of the respondents replied that they did not encounter any obstacle in the overall exercise of information acquiring.

The result of the survey revealed that 43.1% of the respondents explained their information need has increased after they engaged in business at a higher level and 39.7 at a medium rate and 17.2% a lower rate.

RELATION WITH ETHIOPIAN WOMEN ENTREPRENEURS

Women entrepreneurs made relationship with the Association. Their relations are in the areas of obtaining information, training, credit, and other related information. The proportion of the relationship on various information is depicted in Table 5:12:

Table 5.12 Type of Assistance Women Entrepreneurs Get in EWEA

Type of assistance	No of respondents	percentage
Training	20	48
Information	22	52
Total	42	100

The character of information that they are getting has completeness problems:

The character of the information they get is summarized in Table 5:13.

Table 5.13 Characteristics of Information in EWEA

<i>Information</i>	<i>Yes</i>	<i>%</i>	<i>No</i>	<i>%</i>
Complete	5	22.7	17	77.3
Accurate	18	81.8	4	18.2
Relevant	18	81.8	4	18.2
Timely	15	68.2	7	31.8

5.1.2 Informal Sector

Women entrepreneurs are highly involved in the informal business sectors such as home based and low level businesses. Their activities include selling of fruits and vegetables; other food items; like ‘Injera’ (it is a food item in Ethiopia), fire wood/charcoal; raw materials for ‘tela’(local beer made from barley and others) and ‘tej’ (local drink made from barley, honey or sugar, ‘bekil’ and ‘gesho’); second hand clothes, shoes, commodities such as sugar, salt and soap; and handicrafts.

In the survey, 400 women entrepreneurs (10% of the total population) were given the questionnaire. Among these, 211 (56%) answered the questions and returned the questionnaires back.

Data analysis for the informal sector showed that women who are less than 15 years of age are not involved in such type of business. Therefore, as shown in Table 5:14, age groups ranging from 15-60 are involved in the informal sector.

Table 5.14 Age Distribution of Women Entrepreneurs in the Informal Sector

Age	No. of respondents	percentage
15-30	114	54
31-45	60	28
46-60	37	18
<i>Total</i>	<i>211</i>	<i>100</i>

The result indicated that the majority of women entrepreneurs (54%) involved in the informal sector fall in the age groups between 15 and 30 (i.e., they are young and can contact a great

many people to get information). It is followed by age group between 31-45 (28%) and ages between 41-60 (18%). From this, it is possible to deduce that the majority of women entrepreneurs are in their active economic age, which facilitates the information-receiving process.

Although it is widely known that women are left aside from education and information, the study revealed that the majority (63%) has access to printed media (Table 5.15).

Table 5.15 Educational Characteristics of Women Entrepreneurs in the Informal Sector

Education	Total	percentage
None	13	6
Adult education	66	31
Primary Education	48	23
Secondary Education	84	40
Tertiary	-	
Total	211	100

About 37% of women entrepreneurs responded that they do not read and write except writing their names. Therefore, printed information for these entrepreneurs is not functional and effective. It limits the dissemination of information through printed media. However, 23% of the informal women entrepreneurs reported that they have primary reading and writing capacity. Printed media, therefore, serves significant part in disseminating information. Moreover, 40% - the majority of informal women - in secondary school - use printed information more efficiently than the others. Therefore, in addition to oral dissemination of information, written information is an important medium of information dissemination for the majority (i.e., for those that have primary and secondary education).

In addition to educational level, marital status also affects the information need of women entrepreneurs. Married women entrepreneurs (40%) receive additional information from their husband. The second major category are single informal women entrepreneurs, i.e., 37% and need information only for their business. This indicated that, except the single women, all others have dual responsibility, i.e., managing business, and managing the house, and their family. They reported that they need additional information to take care of the health of their family more than the single women entrepreneurs. Widowed, divorced and separated ones have more responsibility than even those who are living with their husbands. The marital status of women is composed of the following (Table 5.16):

Table 5.16 Marital Status of Women Entrepreneurs in the Informal Sector

Marital status	No. of Respondents	percentage
Married	84	40
Single	78	37
Widowed	24	11
Divorced	13	6
Separated	12	6
Total	211	100

Reasons that are mentioned by respondents for establishing and participating in these informal sectors are shown in Table 5.17:

Table 5.17 Reason for Acquiring Information

Reason	No. of Respondents	percentage
The only source of in come	110	52.2
Supplementary	37	17.5
To keep on self busy (not		

keep idle)	64	30.3
Others	-	-
Total	211	100

For the majority of women entrepreneurs (52.2%) the informal business sector is the only means of survival. As a result, the success and failure of the business directly affects their livelihood. Therefore, for this group of women entrepreneurs, information is highly important. For the remaining two groups, it seems that the business is not concerned mainly for survival. They reported that it is a supplementary task (17.5%) and making themselves busy (30.3%).

As far as ownership of the business is concerned, 71% (150) are solely owned by women and 29% (61) are owned in partnership form. 138 (65.5%) of the women use their own money, 60 (28.5%) and 13 (6%) of the women entrepreneurs in the informal sector did get credit and assistance respectively as a source of capital for the business they are engaged in. 193 (91%) had capital less than Birr 5000 and 18 (9%) had capital between Birr 5000 and 10000.

Considering their capital and income levels, it is very difficult for them to use information technology equipment individually.

INFORMATION SEEKING PATTERN

These days, information is important for every body. Similarly, it is relevant for women entrepreneurs for their success. On top of this, 145 (69%) of the respondents seek information as food, money, clothing, etc. However, 66 (31%) of the respondents did not. Therefore, the majority of the entrepreneurs understood that information is an important resource for their success.

The type of information they need is not only business information (market, potential) areas of investment, price, etc) but also they need health and personal information

Table 5.18 Type of Information Needed

Type of information	No. of Respondents	percentage
Health	45	31
Business	65	44.8
Personal	25	17.2
Both	10	7
<i>Total</i>	<i>145</i>	<i>100</i>

Since they are businesswomen, they need business information highly. The majority (65 or 44.8%) of the respondents need business information, 45 or 31% need health information, 25 or 17.2 % of the respondents need personal information, and 10 or 7% need both types of information. It is possible to infer that establishment of an appropriate entrepreneurial information provision system is advisable to satisfy these high need of business information.

The purpose of having information was to know the needs of their customers, positions of their competitors, (78 or 37 %), to take care for the health of their family (79 or 37.4%), to tackle social problems (24 Or 11.4%) and for both (30 or 14.2%).

Women entrepreneurs used various sources to acquire information. The sources they exploited based on their responses were shown in Table 5.19:

Table 5.19 Sources of Information

Sources of information	No. of Respondents	percentage
Religious institution	27	13.5
Government bodies	9	4.5
Associations	31	15.5
Mass media	102	51.5
Wedding, coffee, Idir, etc	30	15
Total	199	100

Generally speaking, mass media was the most important sources of information for women entrepreneurs. Associations (women, & woman entrepreneurs associations) constitute the 2nd major source (15.5%), social and ceremonial activities like 'idir', coffee, wedding (15%) and religious institutions (13.5%) also serve as undeniable sources of information. Governmental bodies such as ministries and commissions would serve as the least utilised sources of information.

The major problem of the information that they were getting is lack of completeness. The majority (78%) of the respondents complained that the information they were getting was incomplete. However, to some extent, it was accurate (49.7%), to a great extent, it was relevant (75%), and it was, to some extent, timely (57%).

Table 5.20 Characteristics of information

<i>Characteristics</i>	<i>State</i>				<i>Total</i>
	<i>Yes</i>		<i>No.</i>		
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Complete	37	22	132	78	169
Accurate	84	49.7	85	50.3	169
Relevant	127	75	42	25	169
Timely	96	57	73	43	169

As far as their level of satisfaction was concerned, 97 or 46% of the respondents are satisfied with the information that they were getting and 114 or 54% of them were not satisfied with the information they were acquiring.

The major proportion of the respondents (180 or 85%) encountered loss in their business and 31 or 15% did not face any loss in their business. Reasons for their loss were:

Table 5.21 Reason for Loss

Reason	No. of Respondents	percentage
Money	40	19
Market	88	41.7
Information	61	28.9
Training	19	9
Both	3	1.4
<i>Total</i>	<i>211</i>	<i>100</i>

Relation with Women Entrepreneurs Association

The Association provides assistance in the form of training, information, credit, and others. Accordingly, 151 or 71.6% of the respondents get any form of assistance and 60 or 28.4% of the respondents did not. The proportion is depicted in Table 5.22:

Table 5.22 Type of Assistance Women Entrepreneurs Get In EWEA

Assistance	No. of Respondents	percentage
Information	105	69.5
Training	31	20.5
Credit	15	10
Total	211	100

The characteristics of information that they were getting in the Association is described in Table 5.23:

Table 5.23 Characteristics of Information in EWEA

<i>Characteristics</i>	<i>State</i>				<i>Total</i>
	<i>Yes</i>		<i>No.</i>		
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Complete	35	33.2	70	66.7	105
Accurate	65	61.9	40	38.1	105
Relevant	72	68.6	33	31.4	105
Timely	53	50.5	52	49.5	105

The result of the existing system analysis has identified various problems. It is possible to say that the existing system does not work because the Association lacks a responsible body for the organization of data and dissemination of information. Therefore, alternatives to solve these problems are:

1. To go with the existing system: to go with the existing system can be an alternative but it would not be the solution to the current problems. Since the existing system is nonfunctional and it is manual, which results in delay in operations, it could not be a solution.

2. Development of automated database systems: to develop an automated database will reduce time lag that is wasted in finding and retrieving various data manually.
3. To interact with various data sources through network: this alternative could have been a solution had there been good information infrastructure in the country.

Taking in to account the country's information infrastructure and manpower problems in the association, the second alternative could be the best solution to solve the problem in hand. The database solution will be discussed on the following session.

5.3 The Database Solution

Designing a new system is done on the basis of the approved and feasible alternative from the selection phase. After defining what the requirements of the users are, and devising how those requirements can be fulfilled, one can justify the time and cost to design the new system. In fact, design alternatives are first assessed at the selection phase. Kozar (1989) suggests two major factors to be considered in specifying design alternatives. These are:

1. **Specifying the system boundary.** This is determination of which subsystems and activities the target system will include. With regard to EWEA, it keeps information about investment opportunities, creditors, their members, training institutions, market potentials, demand, etc.

Among these activities, the proposed system is designed to keep information on investment opportunities, creditors, members, and training institutions. These are the database requirements for the new system, which are identified on the basis of the

identification of the users' requirement, the analysis of the existing system, and the available technological resources.

2. **Specifying the physical implementation of the system.** This is specifying the technology that will be used in the design of the proposed system. The proposed system of EWEA is developed, at least the prototype, using the Microsoft Access 97 on a stand-alone Pentium computer with 16-megabyte RAM.

In designing a database for Ethiopian Women Entrepreneurs Association, identifying the information requirement of the users is extremely important. Accordingly, women entrepreneurs in general need information on

1. Investment opportunities
2. Creditors and financial institutions
3. Market areas (national and international)
4. Demand of consumers
5. Training institutions
6. Areas of business that are saturated by businesspersons.

As far as investment opportunities are concerned, some of them are found in the investment office. However, investment opportunities in the investment office consist of high level investment which worth above Birr 250,000. It does not provide information on opportunities relevant for women in which they are highly involved in the small-scale industries and informal business sectors. Therefore development of database on these investment opportunities is an important task for women entrepreneurs association since their responsibility is to search and to inform these business opportunities for women entrepreneurs

in Ethiopia. For high-level investment projects, obtaining information from the Investment office could have been possible had there been adequate infrastructure in the country.

In addition to this, the association needs to keep information regarding creditors and financial institutions. This is because one of the major problems of women entrepreneurs is money. To alleviate this problem, the association finds financial institutions and informs women entrepreneurs regarding these institutions and introduces their credit policies. The information include the type of the institution, their specialization, their collateral requirement, financial limit, etc.

Another major problem of women is lack of training. The association discovers training institutions existing in the nation or abroad. They also find sponsoring organizations for training. Therefore, they need to have data on these training institutions.

Investment opportunities

In the country, there are various investment opportunities on different sectors. It includes industry, agriculture, services, import and export, and other informal business sectors. Data on this consist of the following:

Project

- ◆ Type of investment (Project)
- ◆ Sector
- ◆ Subsector
- ◆ Region
- ◆ Woreda
- ◆ Investment climate
- ◆ Capital

- ◆ Product

Sector

- Agriculture
- Services (Education, health, hotels, etc)
- Industry
- Handicrafts
- Import and/or export
- Informal sectors

Conditions on investment

- Regulation
- Social
- Political
- Economic
- Professional
- Infrastructure

Location

- Region
- Zone
- Woreda
- Kebele

5.3.1 Data Modeling

One of the primary tasks of the system analyst is to determine the data requirements of the target system. To this effect, the researcher has studied the existing system, assessed the requirements of users, and employed a data-modeling tool known as *ENTITY*

RELATIONSHIP MODELING. Therefore, the researcher believes that the target system should incorporate data about the following entity types and attributes.

1. **Investment opportunity** (Project Name, Project_ID, Sector_ID, Subsector_ID, Region , Woreda, Investment climate, Capital, Product,)
2. **Sector** (Sector_ID, Sector Name)
3. **Subsector** (Subsector_ID, Subsector Name)
4. **Location** (Location_ID, Region_ID , Zone, Woreda)
5. **Region** (Region_ID, Region Name)
6. **Region_Climate** (Region_ID, Climate_ID)
7. **Conditions on investment** (Climate_ID, Climate Name)

The above-identified entities have relationships among themselves. Their relationship and cardinality is represented in Fig.5.4.

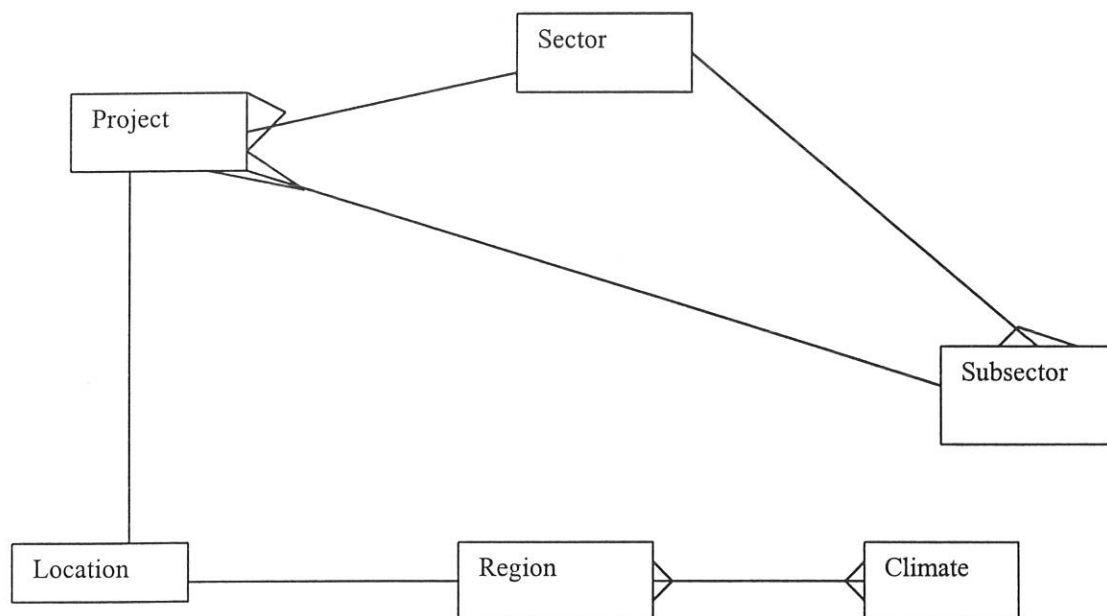


Fig. 5.4 Entity Relation Diagram

5.3.2 Normalization

In order to build a “good” data model, we have to make analysis of data. This data analysis involves the study of the data elements in the entities to refine the first draft data model (Whitten and others, 1989). Data analysis uses a procedure called normalization—an attempt to present a clear view of the data to the designer of database structure (Kozar, 1989).

According to Kozar, the results of normalization are:

- data structures without repeating groups
- data structures with data elements dependent on the entire primary key
- simpler views for data designers of complex relationships and dependencies between data elements
- reduction of fact redundancies
- data elements describing data entities to which they are most closely related

In general, normalization is used to simplify entities, eliminate redundancy and build flexibility and adaptability into the data model. These results are accomplished by manipulating data structures about the system under development.

Mostly for the designer, normalization is a multiple-steps procedure that places the data model into simplified form for database design. Kozar (1989) states “ Usually the objective of the system developer is to express data in third normal form.” The major three levels of normalization are presented as follows.

First Normal Form (1NF)—Remove repeating groups. An entity is in first normal form if there are no elements or groups of elements that repeat for the single occurrence of the entity. If there are repeating elements, remove the repeating group and treat it as a separate entity.

Second Normal Form (2NF)—Remove non-key data elements not fully dependent on all data elements in the key. We first set a primary key in the entity and see if it contains more than one data element, concatenated key. Then if there is an attribute that doesn't need all the key elements to identify it, we separate this attribute that is not fully dependent on the entire primary key data elements.

Third Normal Form (3NF)—Remove data elements uniquely identified by another non-key data element (transitive dependency). If a non-key element depends on another non-key element, the two related items should be separated and treated as an independent entity.

The normalized tables for the target system of EWEA:

Table 5.24 Project Table

Project Name	Pro.-id	Sector_ID	Subsector_ID	Location_ID	Inve.cost	Capacity

Table 5.25 Sector Table

Sector-id	Sector name

Table 5.26 Location Table

Location_ID	Region_ID	Zone	Woreda

Table 5.27 Conditions on investment Table

Climate-id	Climate name

Table 5.28 Region_Climate Table

Region_ID	Climate_ID

Table 5.29 Subsector Table

Subsector_ID	Subsector Name

Table 5.30 Region Table

Region_ID	Region Name

5.4 Prototype Development

Prototype is a partially functional version of the proposed solution. This prototype is not a complete construction of data files or it does not support all procedures and functions of the proposed system. The prototype provides sufficient technical facilities regarding complete data base on potential business opportunities.

The prototype is developed using Microsoft Access 97. This application software has good features for relational databases. Relational database consists of entities of which each entity has its own attributes that can be represented by tables. Each entity has relation to another entity. Using Access 97, it is possible to create, edit, and prepare necessary reports regarding potential investment opportunities.

Tables Implemented

There are seven tables consisting of objects in which storing data concerning each entity is necessary. These are project table, sector table, subsector table, region table, location table and an intermediate table (Region_Climate table). Since there is many to many relationship between region and investment climate and Access couldn't support this, an intermediate table is mandatory to change the cardinality of the relationship between region and climate.

Project Table

The prototype is developed by considering project table as a base for investment sectors. The project entity has its own data entry form which is used to enter and edit individual projects. In this table, project identification number is the primary key (Pro_ID).

Sector Table

This table is developed to incorporate data regarding sectors of each projects. It consists of definite number of records and sector identification number (sector_ID) is the primary key for it.

Subsector Table

This table is developed to encompass data on projects and subsector identification number is assigned as the primary key for it.

Region Table

This table consists of available regions in the country having business opportunities. It consists of definite records and for updating, regions, there is a region data entry format.

Location Table

This table consists of the particular place the project is located. It has location identification number (Location_ID) as a primary key.

Climate Table

This table consists of elements of investment conditions such as political, social, economic, and infrastructural facilities existing in the particular region. These conditions have their identification number and they have text value, i.e., explanations are given to the investment conditions in the region.

PROTOTYPE PROGRAM

The welcome screen, shown in Fig. 5.5, appears when the program starts. It is used to welcome the user and introduce her/him regarding the organization the database belongs. The

screen consists of two commands, 'OPEN', and 'CLOSE'. If a user wants to continue the program, he/she has to click the 'OPEN' button; and if the user wants to exit from the program, click the 'CLOSE' button.

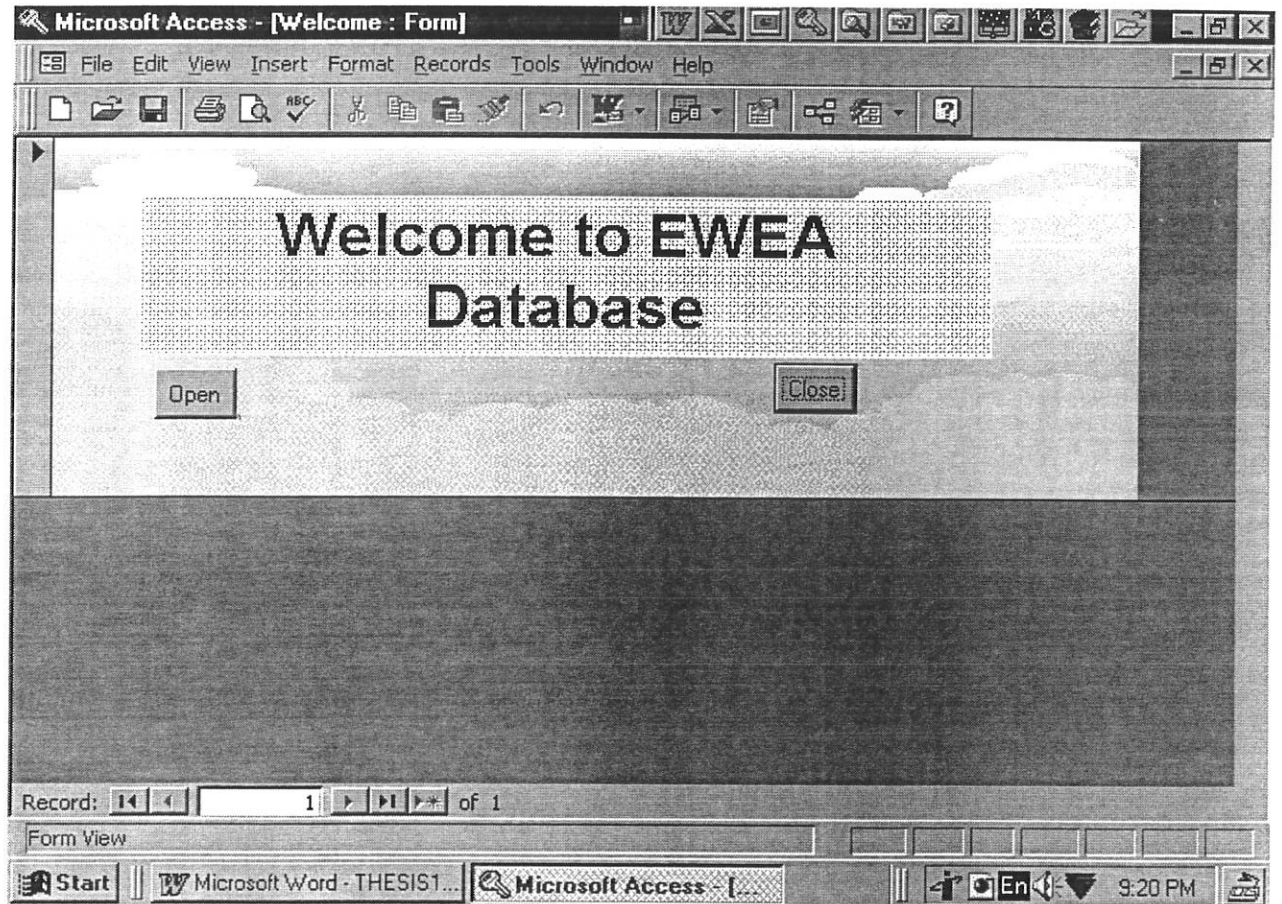


Fig. 5.5 Welcome Screen

When the user clicks the 'OPEN' button, it will lead him/her to the second menu consisting of three options; Data entry, Report and Close (Fig.5.6)

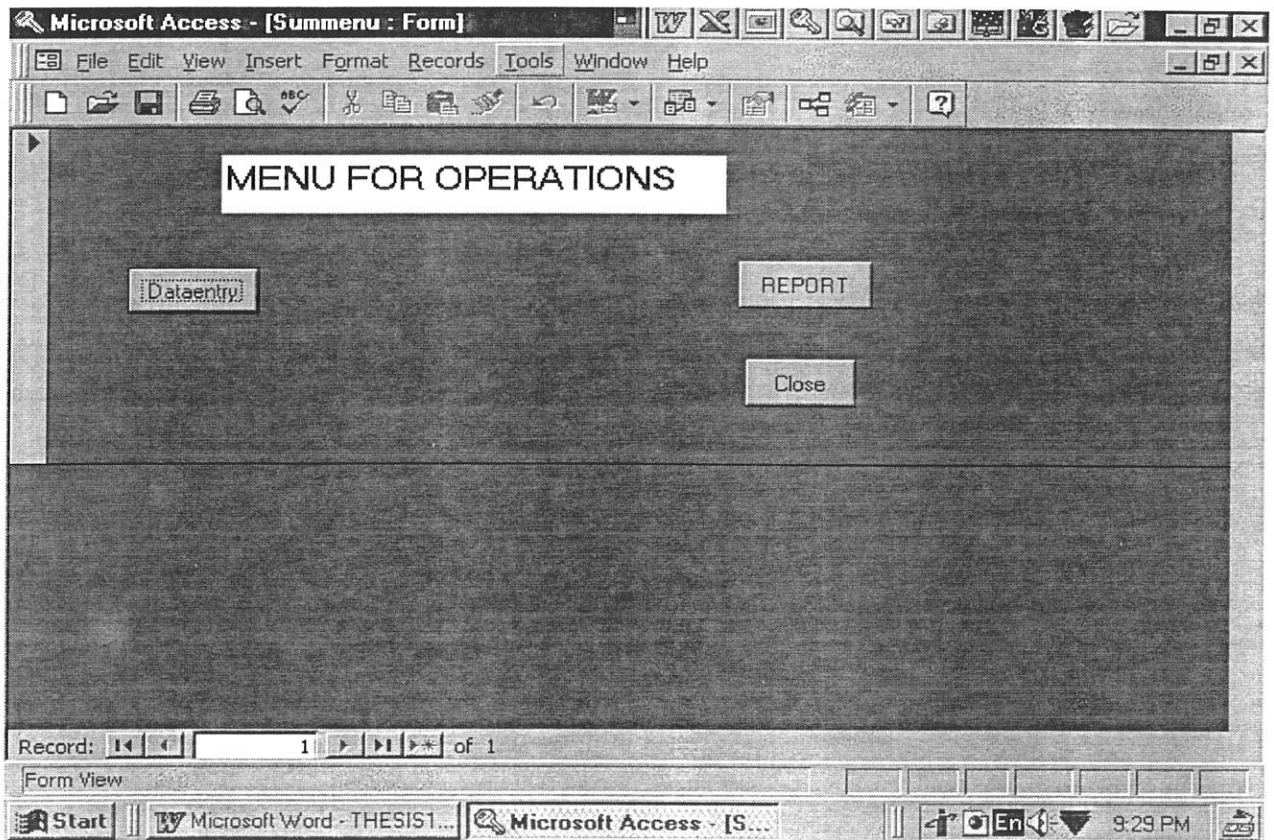


Fig.5.6 Menu for operations.

When the Data entry button is clicked, it will take the user to the third menu consisting of all data entry forms (Fig.5.7) and select the appropriate option the user needs to enter data. If the user selects 'PROJECT' button, it will take him to project data entry format(Fig.5.8).

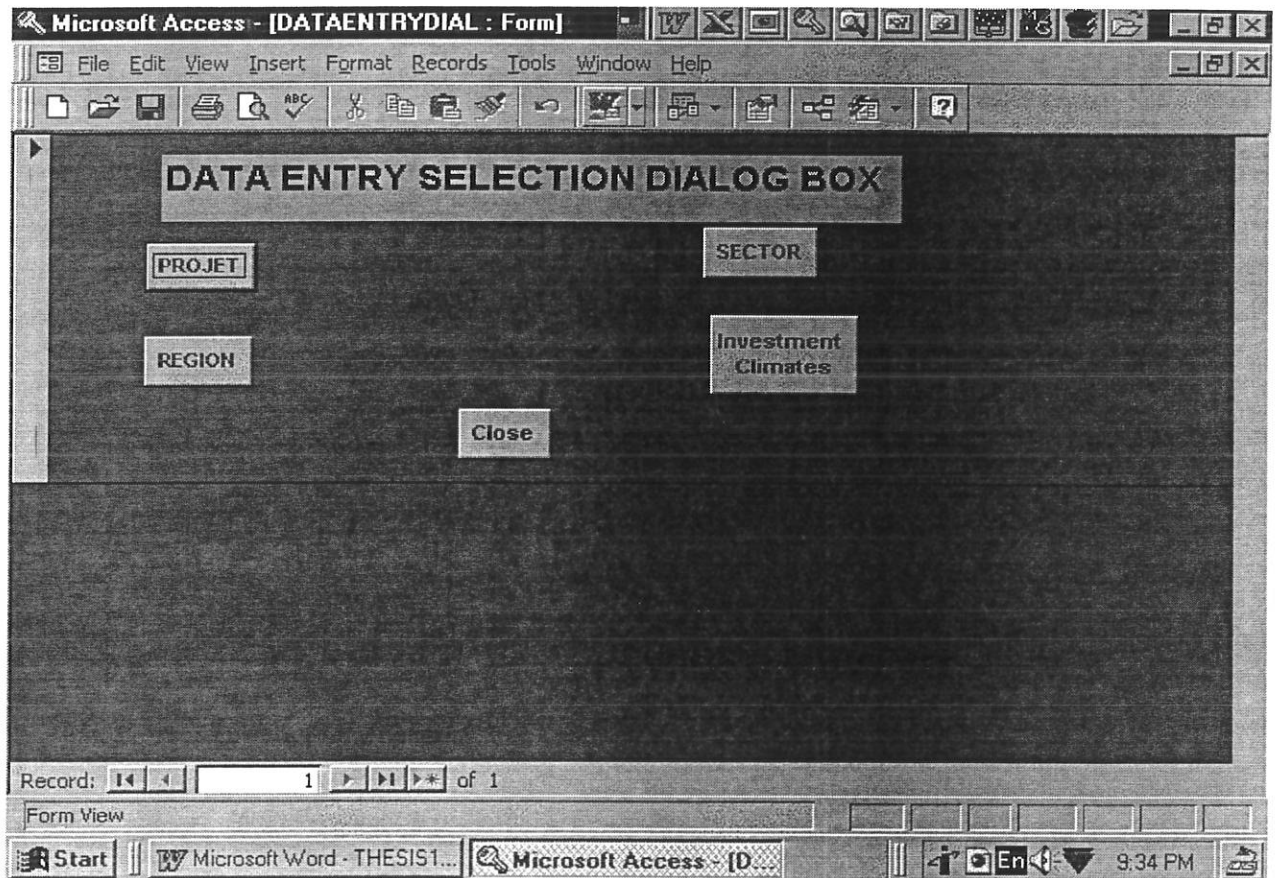


Fig.5.7 Data Entry Dialog Box

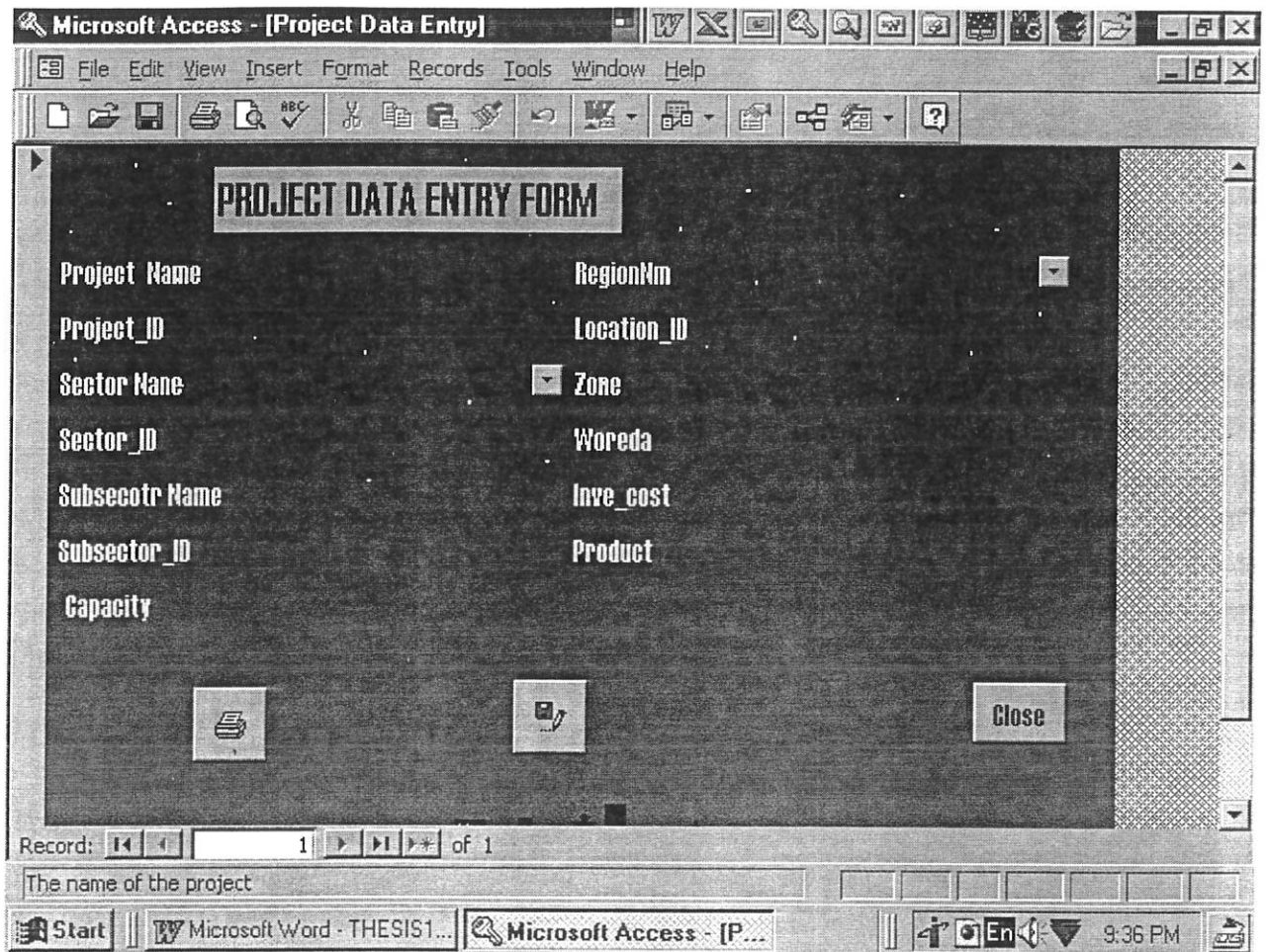


Fig. 5.8 Project Data Entry Form

5.4.1 Testing of The prototype

Testing of the prototype by taking sample data on projects, their region, sector, etc. is performed. In testing the prototype the following are implemented:

- ☞ Data are classified by sector, subsector, region,
- ☞ Text documents are included in the prototype,
- ☞ The prototype renders data maintenance facilities such as acquiring, search, and report.
- ☞ End users and various staff members of the school are made to use the system, and based on their comment modifications have been made.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The objective of this study is to examine the information seeking pattern of women entrepreneurs, to analyze the existing system EWEA and identify problems in the provision of information to its members, to design a database system that will alleviate these problems, and develop a prototype using relational data modeling. To this end, a survey was conducted to identify the information requirements of women entrepreneurs involved in both formal and informal business sectors, to assess the extent to which the existing data management system of EWEA meets these information requirements.

The results of the study indicated that the data management system of EWEA has encountered serious problems in meeting the information requirements of women entrepreneurs in Ethiopia at large and its members in particular. Information in EWEA is characterized by lack of completeness, relevancy, accuracy and timeliness. The major causes are the absence of organized systems, lack of active communications with other organizations, under-utilization of information technology, lack of properly trained manpower, lack of user studies to identify the information requirements of women entrepreneurs and lack of identification of business opportunities.

As a major objective, EWEA is established to provide information on potential business opportunities particularly to its members and to extend its information support to women entrepreneurs in Ethiopia at large. Nevertheless, this study showed that it is not functioning as intended or expected. It is unable to satisfy the needs of its members, let alone women entrepreneurs in Ethiopia.

EWEA has actually performed some promotional activities. It has organized, for example global trade-fair, which created relationship of Ethiopian women entrepreneurs with women entrepreneurs in the rest of the world. However, identification of potential business opportunities for women appears to have been neglected. This can be evidenced from the survey that the majority of the respondents replied that EWEA has provided incomplete and unorganized information for its members.

However, regarding the consciousness of women entrepreneurs towards information is encouraging, i.e., it is contrary to what is widely understood. The majority of women entrepreneurs looked at information as an important resource for their business. However, the absence of organized and summarized entrepreneurial or business information is a limitation for these women entrepreneurs. Toward this, EWEA should have performed much. However, EWEA has a limitation in its size and quality of manpower, information technologies, and awareness of the information requirements of its members.

Regarding the information-seeking behavior of women entrepreneurs, they badly need business information. Besides, they need information on managing their home and the health of their family. Nevertheless, EWEA is expected to provide information mainly on business. EWEA is used to exploit various information dissemination techniques. In fact, EWEA did

not exploit the mass media although the majority of women entrepreneurs has access and use it as a major source of information. In addition to this, they can disseminate information through religious ceremonies, informal social groupings and activities like 'idir', and wedding ceremonies.

6.2 Recommendation

In order to overcome or mitigate problems existing in EWEA, the following remedial actions are recommended:

1. **Proper implementation of their term of reference.** It is recommended to implement what they have described as their objective. That is, it has to serve as a center where new projects and business opportunities are identified, assessed, analyzed, and developed for the benefit of the members.
2. **Identification and study of the information requirements of women entrepreneurs.** EWEA has never conducted a study on the information requirements of women entrepreneurs. User study would help EWEA to identify the information requirements of women entrepreneurs, and also help to develop satisfactory information systems for users. Since user requirement changes through time, detailed and continuous user studies should be conducted. Successful development of data management systems depends on accurate and complete determination and definition of the information requirements of users. The identification of information requirements of women entrepreneurs should be followed by their satisfaction survey to measure and monitor the progress of work in relation to the plan.
3. **Utilization of the maximum capacity of the technology and train the personnel available in EWEA.** The available information technology is not optimally utilized for processing, compiling, consolidating and organizing data. Moreover, EWEA is

in short of trained manpower, on gathering, analyzing, and organizing data. To solve this they should hire trained manpower and upgrade the existing ones.

4. Developing the prototype database to a full fledged operational database.

Development of database on business opportunities is relevant for EWEA in order to achieve its objective of establishment. The existing non-functional manual system should be replaced by the proposed computerized information systems. For the development of an operational database, EWEA should undertake

- a) Exhaustive identification of business opportunities
- b) Thorough study of the information requirements of women entrepreneurs
- c) Initiate an automation project that aims at acquiring, organizing, and processing the data on business opportunities.

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Appendix I

QUESTIONNAIRE FOR WOMEN ENTREPRENEURS

Dear Madam:

I am a postgraduate student at Addis Ababa University and carrying out a study on **“Information Needs of Women Entrepreneurs in Ethiopia”**. As part of the award of Masters of Science in Information Science, your assistance is badly needed for me. Any information you give will be used for this particular purpose only, and will be kept confidential.

Thank you, in advance for your kind co-operation.

Abebe Ejigu

Addis Ababa University

School of Information Studies for Africa

P.O.Box 1176

Addis Ababa

I. PERSONAL DATA

1. Age

15-20 _____

21-30 _____

31-40 _____

41-50 _____

>50 _____

2. Educational level

None _____

Adult Education _____

Primary _____

Secondary _____

Tertiary

Diploma _____

Degree & above _____

3. Marital status

Married _____

Single _____

Widowed _____

Divorced _____

Separated _____

4. The type of business you are engaging in

Food processing _____

Farming _____

Fishing/fish selling _____

Shop _____
Hotel, Restaurant, Bar _____
Local beer brewing _____
Dry cleaning _____
Music shops _____
'Gulit' _____
Other, please specify _____

5. Do you have licence?

Yes _____ No _____

6. What is your reason to establish the business?

Source of income _____

Supplementary to the existing income source _____

Not to be kept idle _____

Other, please specify _____

7. Ownership status

Single/ sole proprietorship _____

Partnership _____

Corporation _____

Co-operatives _____

8. What is your source of capital?

Own money _____

Credit _____

Assistance _____

Other, please specify _____

9. The capital of your business

Less than 10000 _____

10000-50000 _____

50000-150000 _____

150000-250000 _____

More than 250000 _____

10. What is the amount of your yearly income? _____

II. INFORMATION NEEDS AND SEEKING PATTERN

1. In our daily life, we need food, money, clothing, information. Have you ever sought any information?

Yes _____ No _____

2. If your answer to question number 1 is yes, what type of information do you need?

Health _____

Business _____

Personal _____

Other, please specify _____

3. For what purpose do you need information?

To know demand of your consumers _____

To take care of the health of your family _____

To solve social problems _____

Other, please specify _____

4. From where do you get information?

Religious institutions _____

Government bodies _____

Women associations _____

Women entrepreneurs association _____

International Organisations _____

Mass media _____

Ceremonial sources like wedding, coffee, 'Idir', etc, _____

Other, please specify _____

5. What type of information do you highly need?

Health _____

Business _____

Personal _____

Other, please specify _____

6. In what form do you want to get information?

Written _____

Oral _____

Electronical _____

Other, please specify _____

7. Do you think the information you get

Complete? Yes____ No____

Accurate? Yes____ No____

Relevant? Yes____ No____

Timely? Yes____ No____

8. Do you think the information you received satisfactory?

Yes____ No____

9. If your answer for Q.8 is 'no', what measures did you take to satisfy your shortage of information?

_____.

10. Did you face/encounter loss in your business?

Yes _____ No _____

11. If your answer to Q. 10 is 'Yes', is it lack of

Money? _____

Market? _____

Information? _____

Training? _____

Technical capacity? _____

Other, please specify? _____

12. What obstacles did you face during the whole exercise of obtaining information?

Lack of awareness about sources _____

Lack of co-operation from sources _____

Absence of organised information from sources _____

Lack of awareness about the importance of information _____

Others, please specify _____

13. How do you evaluate your information requirement before and after joining the business?

High _____ Medium _____ Low _____

14. What suggestions do you have for solving the above problems you encountered?

_____.

III. RELATION WITH THE ETHIOPIAN WOMEN ENTREPRENEURS

ASSOCIATION

1. Did you get any help or assistance from the Association?

Yes _____ No _____

2. What type of assistance did you get from them?

Training _____

Credit _____

Information _____

Other, please specify _____

3. If the assistance you get from them is information, is the information

Complete? Yes _____ No _____

Accurate? Yes _____ No _____

Relevant? Yes _____ No _____

Timely? Yes _____ No _____

4. What problems did you encounter when you ask information from them?

Appendix II

QUESTIONNAIRE

FOR WOERKER AT THE ETHIOPIAN WOMEN ENTREPRENEURS ASSOCIATION (EWEA)

DATE . _____

Dear Madam:

I am a postgraduate student at Addis Ababa University and carrying out a study on

“Information needs of Women Entrepreneurs: Case of

Members of Women Entrepreneurs Association of Ethiopia”.

It is aiming at assessing the information needs of women entrepreneurs, the information exchange pattern and problems they face in accessing information in order to suggest an appropriate information system by developing a database and an information center in EWEA.

As part of the award of Masters of Science in Information Science, your assistance is badly needed for me. Since the success of this study depends on your cooperation, I am keen to receive your response at your earliest convenience. Any information you give will be used for this particular purpose, and will be kept confidential.

Thank you, anticipation of your kind cooperation.

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QUESTIONNAIRE I

This is to be provided for selected Members and Officers of EWEA at the head office and Regional representatives.

PART I—IDENTIFICATION

1. Identification Information

Department Name _____

Position _____

PART II. CATEGORY OF INFORMATION, SOURCES AND USERS

2. Which category of information women entrepreneurs require from your office. Please, put the rank of the required information according to their relevance to you in the box provided.

Type of Information Required

Rank

☐ Market/demand information.....

☐ Taxation policy.....

☐ Potential investment areas /Agriculture, industry hotel and tourism etc./...

☐ Export and import regulations.....

☐ Financial institutions /banking & insurance/

☐ Economic data and reports/ GDP, GNP, NNP etc.,/.....

☐ Demographic data /population size, birth rate, death rate, etc.,/.....

☐ Geographic data /Altitude, longitude, temperature, rainfall, etc.,/.....

☐ Political and governmental information /.....

☐ Marketing conditions in different sectors.....

☐ Professional /Experts, engineers and managerial skills/.....

☐ Supporting agencies and organizations /Constancy, advertising.....
agencies, etc.,/

☐ Competitors.....

...

☐ Others, please specify, _____

3. Is the available data and information in your organization:-

YES

NO

3.1 Complete.....	☐	☐
3.2 Relevant	☐	☐
3.3 Timely.....	☐	☐
3.4 Accurate	☐	☐

4. Choose any of the following possible reasons for the following questions. Please, write their number(s) in the space provided.

1. Manual nature of the information handling system
2. Low level utilization of information technology
3. Lack of trained man power to manage the information system
4. Low level of understanding about the role of information

4.1 If your answer to question No.3.1 is 'NO', what are the basic reasons? _____
 Any other reason, please, specify _____

4.2 If your answer to question No.3.2 is 'NO', what are the basic reasons? _____

 Any other reason, please, specify _____

4.3 If your answer to question No.3.3 is 'NO', what are the basic reasons? _____

Any other reason, please, specify _____

4.4 If your answer to question No.3.4 is 'NO', what are the basic reasons? _____

Any other reason, please, specify _____

5. How do you store most of the available data? Please put an 'X' mark in the boxes of you choose.

☐ Electronic form

☐ Printed form

☐ Audio form

☐ Image (photograph, picture etc.,)

6. How often women entrepreneurs use the available Information?

☐ Highly

☐ Partially

☐ Rarely

☐ Not

7. If your answer to the above question is “Rarely utilized” or “Not utilized”, what do you think the reasons are?

<u>Reasons</u>	<u>Rank</u>
1. Unawareness about the existence of the required information.....	
2. Absence of complete, relevant, timely, and accurate information.....	
3. Low level of Information technology utilization.....	
4. Lack of skilled man power.....	
5. Poor promotional mechanism.....	
6. Others, please specify_____	

8. Is the existing information provision service adequate?

Yes

No

9. If your response to the above question is “No”, what do you suggest to improve? Please, state the possible solutions _____

PART III INFORMATION DISSEMINATION

10. How do you disseminate information for women entrepreneurs?

Promotional Mechanism

Rank

1. By preparing conferences, workshops, trade fairs, etc.,.....

2. Publications (Newspapers, pamphlets, guides, etc.,).....

3. Advertisements (using TV, radio, etc.,).....

4. Personal contact.....

11. Are the existing information provision techniques effective and efficient?

Yes

No

12. If your answer is "No" to the above question, what are the reasons?

PART IV - FACILITIES IN THE INFORMATION CENTER

13. The available information technology which are used for investment information handling

and promotional activities.

ITEM	QUANTITY	DESCRIPTION
Computers		
Printers		
Scanner		
Photocopier		
Video camera		
Deck		
TV		
Photo camera		
Tape		
Fax machine		
Telephone		
Application software		

14. What is the qualification and number of employees in the information center investment promotion department?

	<u>Qualification</u>	<u>Field of Study</u>	<u>Position</u>
<u>Number</u>			
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

Appendix III

INTERVIEW I

AN INTERVIEW GUIDE FOR EWEA

Date: _____

Place: _____

Interviewees (President of EWEA)

1. What are the major duties and responsibilities of your department?
2. What type of information do you process?
 - How do you organize, process and store data related to investment?
 - Do you have the required information technology and skilled manpower?
3. Is the available data :-
 - Complete?
 - Accurate?
 - Timely?
 - Relevant?

4. Who are the major users of the data and information processed by your department?
 - How do you disseminate information to these users?
 - In what form (text, picture, audio or video)?
5. What are your major sources of data on investment related matters?
6. Did the authority conduct a study to identify users' information requirements and/or to evaluate the effectiveness of the information provision activity?
 - If yes, what was the result?
 - If no, why?
7. What do you suggest to improve the existing information handling system?

Appendix IV

Data Dictionary

1. Project Table

Field Name	Data Type	Description
Project_N	Text	The name of the project
Pro_ID	Number	The identification number of the project
Subsector_ID	Number	The identification number of the subsector of the project
Location_ID	Number	The identification number of the location of the project
Inv_Cost	Number	The amount of investment cost for the project
Product	Text	The type of the expected output
Capacity	Number	The production capacity of the project

2.Sector Table

Field Name	Data Type	Description
Sector_N	Text	The name of the sector of the project
Sector_ID	Number	The identification number of the sector of the project

3.Subsector Table

Field Name	Data Type	Description
Subsector_N	Text	The name of the subsector of the project
Subsector_ID	Number	The identification number of the subsector of the project
Sector_ID	Number	The identification number of the sector of the project

4.Location Table

Field Name	Data Type	Description
Location_ID	Number	The identification number of the location of the project
Region_ID	Number	The identification number of the region
Zone	Text	The zonal location of the project
Woreda	Text	The district of the project

5.Region Table

Field Name	Data Type	Description
Region_N	Text	The name of the region
Region_ID	Number	The identification number of the region

6.Region_Climate Table

Field Name	Data Type	Description
Region_ID	Number	The identification number of the region
Climate_ID	Number	The identification number of the climate
Description	Text	The state of particular climate in a region

7. Climate Table

Field Name	Data Type	Description
Climate_N	Text	The name of the investment climate
Climate_ID	Number	The identification number of the climate

DECLARATION

The thesis is my original work and has not been presented for a degree in any other University.



ABEBE EJIGU ALEMU

MAY, 1999.

This thesis has been submitted with our approval as advisors.



ATO GETACHEW BIRRU



ATO SISAY FISSHA

MAY, 1999.