GCUniversity Lahore

GCU

ECONOMIC JOURNAL

COURAGE TO KNOW
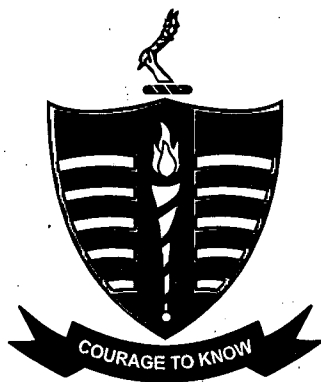
Department of Economics
GC University, Lahore
Pakistan

SUBSCRIPTION

GCU
ECONOMIC JOURNAL

CONTENTS

AN ECONOMIC ANALYSIS OF MICRO AND SMALL SCALE SHOE MAKING UNITS IN LAHORE

Dr. Qais Aslam [1] and Uzair Ahson [2]

ABSTRACT

Small business firms are important and integral part of any economy. They generate employment and income when they do business and tend to expand. Most of the micro and small scale shoe manufactures in this study are still in 1st stage or easily 2nd stage of their growth, as they should be: that's what small scale is all about. But a thing to ponder upon is that about 40% of them are 11 to 41 years old. It means that there is something lacking in the dynamics of small scale either at personal and enterprise levels or external i.e. institutional level. The institutional settings in which these micro and small enterprises operate need to be managed in such a manner that they should not be neglected relatively. Enough resources and planning should also be diverted towards the development of this sector.

1. INTRODUCTION

Business enterprises are distinct economic entities, which by expanding their own business opportunities, employ other factors of production, because of which, other related business such as suppliers of factors, raw materials and sub-contractors have opportunities to expand their own business, employment opportunities and incomes. By producing goods and services, business enterprises also increase the spectrum of consumer choices in the market. All this circular flow at the macro level enhances economic growth and GDP levels in the country and the world at large under free trade, *other things remaining the same*. The basic motive or objective for a business enterprise or a firm is to earn and maximize profits. In order to earn profits, the firm organizes the factors of production to produce goods and services that will meet the demand of consumers and/or other firms in that country or in the international market. Theoretically speaking, equilibrium or profit maximising level of output would be the point where marginal costs (MC) of the firm would be equal to the marginal revenue (MR) of the firm. If the average costs (AC) of the firm at that level of output are lower than their Average Revenue (AR) then the firm would earn super normal profits, and if the average costs (AC) are equal to their Average Revenue (AR) at that level of output then the firm would be earning normal profits and covering its costs. If the average costs (AC) of the firm are above Average Revenue at that level of output then the firm would incur losses and can only sustain these losses for a short time and that also till such time that its variable costs (VC) i.e. the costs of labour and raw material etc. are being met through the revenue of its products. In the long run, the inefficient firm would not exist. So, one important dimension of efficiency is firm's ability to manage its costs. Petersen and Lewis state, "In a market characterized by many firms competing

---

[1] Dr. Qais Aslam is Chairman, Department of Economics, G.C.University Lahore.
[2] Uzair Ahson is Lecturer, Department of Economics, G.C.University Lahore.

against one another, above normal profits provide important signals but are not likely to be maintained over long periods of time. That is, firms already in the market respond to higher profits by increasing output, and new firms will have an incentive to enter the market as well. The result will be an increase in supply of products, prices, and ultimately, lower profits".[1]

Timothy S. Hatten (1997)[2] suggests four stages of development of a small firm; although not all small businesses are of the same size at start up, nor do they all set to achieve the same level of growth in maturity. In the first or solo stage the owner runs the business himself. A business enters the second stage of growth when other people are hired. Now the entrepreneur is no longer just responsible for his own efforts. Management begins because the entrepreneur must now get work done through other people rather than trying to accomplish everything that needs to be done alone. Stage three occurs when he adds a level of supervision i.e. the manager can't supervise each activity and adds some supervisor to take note of departmental structure. In the fourth organization stage, the business has grown to include multiple departments managed by many supervisors. That is rather than focusing on daily operations - making and selling the product or service - he will more exclusively focus on managing the bigger picture--through long range planning and overseeing supervisors.

Most of the micro and small scale shoe manufacturers are still in 1st stage or easily 2nd stage of their growth, as they should be: that's what small scale is all about. But a thing to ponder upon is that about 40% of them are 11 to 41 years old. It means that there is something lacking in the dynamics of small scale either at personal i.e. enterprises or eternal i.e. institutional level.

In a market economy, the organization and interaction of producers and consumers is accomplished through the price system, which guides the decentralized interaction among consumers and firms for efficient allocation of resources in a society. The price system is the interplay and interaction of forces of demand and supply in the market and helps reallocate resources from where their market demand is lesser towards where their market demand is higher. The higher demand for goods helps to increase the prices and leads to an increase in the revenues of those firms the demand for whose products has increased (depending upon its elasticity), but it also helps increase the employment of resources or factors that produce those goods and services. In other words, this would at the same time increase the price of these inputs as their derived demand increases and subsequently increase the cost of production of the firms, thus reducing the profits of the firms and forcing the enterprise to innovate, bring new technologies and techniques of production in order to keep costs of production as low as possible. Hence, the price system works through its interplay of demand and supply, in the presence of overall institutional structure, to allocate resources among alternative uses. The small and micro enterprises work in the same circumstances.

The small and micro level business enterprises are not just a group of individuals or group of people who put their own (and other people's) financial resources at risk for earning incomes and profits. As the drivers of free enterprise system, small business generates a great deal of energy, innovation, and profit

for millions of individuals in the world. Small business includes a wide spectrum of activities. It includes the stay-at-home workers who with the help of their own family members produce and sell their output to the factory owners who usually subcontract all, or a part of their output, to these small and micro manufacturers. It also takes in its fold those businesses that produce the final product for sale in the market themselves, instead of selling the product under some other brand name. Some of these small and micro level businesses sell their products in their own shops. For example, this research shows that selling their own products in their own shops is a common practice in the small-scale shoe making enterprises of Lahore, although a small number of enterprises do produce for other brands or relatively large-scale enterprises as well.

Small business firms are important and an integral part of any economy. Through various business activities, they tend to generate and expand income and employment. Research studies suggest that large business firms need small business entities. On the one hand, large companies subcontract a major part of their input manufacturing to small and medium manufacturers; on the other hand, they also produce machines, tools and raw materials for small business houses. In the earlier stages of development of nations, as the network of communication and transportations readily doesn't exist, so the small firms emerge as a response to smaller demands. But as the economy grows and infrastructural development takes place, along side population growth, the room for large scale enterprises does emerge. Either the former smaller units expand their plant sizes or new firms come into play depends upon a series of economic and cultural reasons. Some countries have consciously tried to establish the small units as a strategy. India, probably the post independence leader in planning for large-scale industrialization, also pursued small industry development with vigour, a legacy of Ghandi's famous advocacy of small units using traditional technologies. China's use of small-scale rural industry in support of local self-reliance is equally well known. E.F. Schumacher author of "*Small is Beautiful*" founded a movement of small industry enthusiasts.

Advocates of small-industry promotion promise a wide range of benefits including accelerated employment creation, income generation for the poor, dispersal of economic activity to small towns and rural areas and mobilization of latest entrepreneurial talent.[3]

At the end of seventies, it became clear that small enterprise studies could gain in depth when they would concentrate on any one sub-sector, or activity. A number of researchers subsequently focused on a limited number of activities, or only one sub-sector, instead of trying to generalize about small enterprises. Studies on specific activities or sub-sectors were published in due course, for example, the study on the Construction Sector in Indonesia, on the Shoe Sector in India and on Tile Production in Indonesia. The common element of these studies was usually the hostile policy environment for these activities. Government policies were usually geared towards serving the modern industrial sector only. Most sub-sector studies of small enterprises concerned leather or textile related activities or the construction sector.[4] Khalid Nadvi after discussing in detail the dynamics of Surgical Instrument Manufacturing Units in Sialkot concludes that 'It appears that small producers to develop into competitive

forces, links with large firms, ties with external agents and the presence of local support institutions have been of great significance". In contrast, the experience of intervention by the state is rather mixed: although, the existence of a number of physical and infrastructure constraints suggest that the state's role as a facilitator and an enabler for small producers cannot be under-estimated.[5] For a detailed discussion on socio-cultural determinates of informal sector see 'Socio-cultural Factors for Promoting the Informal Sector" by Dr. Klaus Klennert in *The Informal Sector in Pakistan* edited by D. Shah Khan.

With fast growing globalisation trends, new opportunities and threats for small business are opening. Small entrepreneurs can use trade liberalization to find niches in global markets in order to expand their business, explore new markets for selling their products abroad, buy cheaper and better quality raw materials, machines, technology and know-how from international markets and take advantage of the local factor endowment more cost-effectively. But there are some perceived and actual threats for survival of micro and small firms. These include cutthroat competition, aggressive marketing, reach to credit and global linkages with foreign firms.

Theoretically speaking, small business enterprises form the basis of a perfectly competitive market because there are many firms in the market trying to sell homogeneous products or close substitutes. They are usually single proprietors or small family business concerns, producing homogeneous products or close substitutes for a limited market, employing a few workers and machines as fixed capital with limited financial resources, and hardly any back up facilities. Some advantages of a small-scale manufacturing venture are that it can directly supervise the production process; take personal initiatives and provide incentives. It has personal relationship with its labour and even with its customers, and can cater for the individual needs.

Economic reasoning suggests that as technical knowledge and facilities become common property, small-scale manufacturing firm can also benefit from the external economies that large-scale firms enjoy. But such situation can only prevail in an environment where small, medium and large scale producers have strong linkages. A very interesting view about cluster dynamics and knowledge spillovers is attributed to Marshall-Arrow-Romer externality. It suggests that an increased concentration of a particular industry within a specific geographic region facilitates knowledge spillovers across firms. This model formalizes the insight that the concentration of an industry within a city promotes knowledge spillovers between firms and therefore facilitates innovation activity.[6]

On the other hand, the small-scale manufacturing firms have to face some disadvantages as well. One is that, the total output being small; the overhead or fixed costs per unit of output could be high. Similarly, the small-scale firms buy raw materials and labour etc. in comparatively small quantities; so they cannot enjoy the economies of scale enjoyed by large-scale producers. Also while selling its products, the small-scale units find marketing costs per unit relatively higher that is why most of the small firms don't advertise. Furthermore, in the era of trade liberalization the domestic markets are opened to foreign investment and business (large and small) that come with higher innovative

techniques, cheaper and better quality products. Hence, they pose many challenges and tough competition to small business, in the case of the less developed countries, Pakistan being the one in the category usually cannot respond or adapt to fast changing market conditions. Therefore, small business often fears that the process of globalisation and trade liberalisation will adversely affect them. The idea of Schumpeter (1949) and D.C. McClelland (1961) are useful in the analysis of Small Scale entrepreneurs. Schumpeter has stressed the role of innovative entrepreneurs in economic development, while McClelland analysed the entrepreneurship and argued that this characteristic can be developed in a systematic way. Their ideas combined in a third world context, led to an interesting entrepreneurship development. Theories concerning the role of small enterprises can be distinguished into theories focusing on the constraints of small enterprises in development process about entrepreneurship development.[7] So, if some intentional effort is made through skill building and productivity enhancement, it is possible that some local firms may develop their linkages with global firms.

The *definition* of small-scale business depends upon the criteria for determining what is 'small' and what quantifies as 'businesses'. Small-Scale enterprise in this research is a firm that employs 2-9 labourers each and exists as an entity manufacturing shoes, marketing its products through its own outlets or work for other shoe sellers, or they work and sub-contract for a larger scale producers of shoes.[8] Several criteria (employment, investment and turn over) have been suggested as defining characteristics of small enterprises and to draw the line between small and medium size enterprises. Employment is the most widely used and very practical and comparable criterion.[9] Usually these small-scale enterprises are in informal sector, which is unorganised. Although some of these may be registered with the tax authorities---hence tending to fall in the category of formal enterprises. Dr. Shahid Amjad Chaudhry in his paper "Significance of the Small and Medium Enterprises (SMEs) Sector in Pakistan and Assessment of its Employment Potential" defines the small-scale firm as having 2-9 employers. He uses the reason that the national pension (regulated through the Employees Old Age Benefit Institution Legislation) and health insurance (The Provincial Social Security Institutions Legislation) is applicable to institution with 10 or more employees and provides a natural cut off point between small scale, medium and large scale sectors.[10]

In Pakistan where approximately 40 per cent of the people live in poverty with income below US$ 1 a day and approximately another 40 per cent live below US$ 2 a day, efforts are required to encourage people to become self-employed and do business for income generation. This would not only generate household incomes but also contribute to enhance economic growth of the country and go a long way to reduce poverty levels. Although the process is not guaranteed to be a success in itself to reduce poverty but it can be a very important base for skill and productivity development, which in turn will lead to capacity building and higher standards of living.

The Department of Economics, Government College University, Lahore conducted a survey of 88 small enterprises in the shoemaking industry of Lahore,

producing all shoes; children shoes, ladies shoes, men's shoes and traditional shoes in order to empirically study and analyse the state, problems, demands and conditions of small-scale shoe manufacturers.

The following were the objectives of the research (survey):

1. To study the profile of the small-scale shoe units.
2. To develop an understanding about the education, training, and skill levels of employers and employees.
3. To gather information about ownership types of business and their economic consequences.
4. To analyse the input and output conditions.
5. To assess the technical and financial support to the industry.
6. To analyse the monthly sales and employment.
7. To recommend measures for improving their operational, marketing and financial efficiency.

2. NOTES ON METHODOLOGY

2.1 Sampling Design Related Considerations

A predominant part of economic activity in small-scale shoemaking industry in Lahore takes place in unreported and informal sector. It was therefore practically difficult for the researchers to estimate the size of target population first and then decide about the sample size.

On the basis of hypothesized variation in sales and related indicators, a sample of 88 micro and small shoemaking units (firms) in Lahore was taken. No formal list of small-scale enterprise in the shoemaking industry was available at the Lahore Chamber of Commerce and Industry, Pakistan Industrial Finance Corporation and Lahore Organization of Shoe manufacturers. Recognising the above said constraints a multitude of snowball sampling designs were adopted.

Three enumerators (students of M.Sc Economics Part II at G.C.University Lahore) conducted interviews and the survey of the market with a questionnaire. Personal interview technique was adopted for survey research to acquire and extract information. Taking advantage of personal interviews, structured, semi-structured, unstructured and deep probing methods were used.

Counter Biasing statements were added at a few stages to enhance the response rate and ensure active participation to avoid extremity bias. Sensitive information was extracted using split ballot technique.

2.2 Questionnaire Coding and Editing

As personal interview technique of survey research was used to obtain responses so the researchers faced lack of response at a very few stages. And then, because of high inconsistencies and probable wrong estimates, five questionnaires were discarded.

Hence, the actual study comprises of 83 enterprises. Taking advantage of split ballot technique of asking questions, in totality less than 10 percent of the case responses were edited.

Computer assisted coding procedure using statistical package Minitab V-13 was adopted. Special care was taken to safeguard the analysis requirement (descriptive statistics, hypothesis testing, co-variance analysis and regression analysis).

2.3 Describing the Feel of the Data

In order to examine and explain the dynamics of data, some descriptive statistical tools were also used.

Choice of suitable measures of central tendency was made from among arithmetic means, median, mode and geometric mean.

To explain extent of variability, different statistics like minimum, maximum, range, first quartile, third quartile, percentile, standard deviation, coefficient of variation, were used.

Different statistical software namely Minitab Version 13, StatGraphics Version 3, and SPSS V-10 are used for this part of analysis.

3. PROFILE OF MICRO AND SMALL SCALE SHOE MAKING UNITS IN LAHORE

The structure of the small-scale shoe making enterprises can best be assessed and analysed with the help of a profile of the industry. The profile would include the relevant factors like the number of units, nature of their productivity, age of enterprises, education and skills of entrepreneurs, access to credit facilities and structure of product line etc.

3.1 Structure of Industry

Most of the activities of micro and small-scale shoe manufacturing sub-sector were in the non-formal (unreported) sector. The shoes manufactured by different firms differ in brand names, and because the firms have very little control over price, therefore this industry seems to be working under 'near' perfect competitive conditions. The micro and small-scale shoe making units can be treated as price takers. They cannot influence their prices as much as some exogenous supply or demand shock. They compete among themselves as well as with large size enterprises to remain in the market.

The shoe making industry is divided into three broad categories:

(a)   Large Scale,

(b)   Medium Scale, and

(c)   Micro and Small Scale.

The product produced by the micro and small-scale units is nearly homogeneous and has very close substitutes; comprising of men's, ladies, children's, and traditional shoes like Khussas and Chappals. Each category of units caters for each specific kind of demand in the market. Some of the micro and small-scale producers produce all kinds of shoes and therefore cater for all kinds of demand in the shoe market.

Micro and small-scale manufacturers of shoes also compete for a share of the domestic demand of shoes and the survey revealed a perfect competitive market,[11] where market price (and therefore the revenue of each firm) is determined by the forces of market demand and market supply. It was also noted that there was no bar on entry or exit in the industry. Any one with financial resources could buy one or two machines (which were relatively cheaper), employ a couple of workers and start production of one or another kind of shoes. There was sufficient information of the market available about prices of the raw materials, quality of the raw materials, types of machines; skills of labour etc.

Largely the medium, small and micro-scale units are concentrated in *Anarkali Bazar*, *Shahalam Market*, *Landa Bazar* and *Paani Wala Talaab* (near Old City of Lahore). The units located in these places compete for the share of the local market for different types of shoes. Hence, there is a sort of cluster in this geographical area which is important for employment generation as well.

As micro and small-scale shoe industry is competing within the domestic market, it continues to follow an inward looking shoe manufacturing and marketing strategy. Export marketing is completely absent in this sub sector. Furthermore, these small-scale manufacturers find it difficult to compete with cheaper and better quality products from abroad, which are flooding the domestic market due to trade liberalization. Moreover, a lot of better quality shoes, including joggers and leather sole shoes, are being smuggled into the country from China and other countries; which further undermine the profit capabilities of the small producers.

Micro and small-scale producers of shoes also have to compete with the large scale producers like Bata and Servis Shoes, not only for a share of the domestic demand for shoes, but also for the better quality raw materials and skilled workers, who are employed at higher wages and 'bonded' contracts by them. The large-scale producers enjoy distinct advantage over them because of economies of scale, although they have to pay variety of taxes on their products.

3.2 Cluster Dynamics

The word cluster means a concentration of traders in a market place or of small-scale producers in an area, often producing and selling the same or similar things. The market exchange here is a simple exchange between the produce and the consumer, and the advantage to the traders and producers in the cluster is that by concentrating their efforts they attract more customers. Market information in such markets and clusters is larger because prices and qualities of goods can be compared.

One of the benefits in cluster to small-scale producers is that they may borrow or rent specialized machine from others, or they may share large orders with others if they themselves don't have sufficient capacity to satisfy the order. However, more intense form of collaboration, specialization, and technological development are rare.

To expand and stabilize their market beyond that which is offered by the cluster, some enterprises try to sell outside the cluster to the formal retail sector that often requires a higher quality, which may be difficult to achieve.

3.3 Education, Training, and Skills of Employers

Most of the firms in the sector under study were owner operated who themselves also happened to be the managers as well. It means that the owner himself made most important decisions about the sale and purchase of inputs or outputs, employment, choice of technique etc. and most of the time he himself was around to supervise his workers as well. Table 1 shows the years of education of the small-scale shoe manufacturers.

Table 1
Years of Education of Employers (In Percentage)
(Total Number of Units = 83)

Years of Education of Employers	Percentage
No Schooling	43.37%
Middle	21.69%
Matriculation	14.46%
Intermediate	9.64%
Graduation & above	10.84%

Table 1 shows that 43.37 percent of the manufacturers had no schooling at all[*], while 21.69 per cent had studied till 8th class; 14.46 per cent were matriculation, 9.64 per cent were Intermediate and 10.84 per cent were graduate or above. In other words, only 20.48 per cent had college level education, while 36.15 per cent had some sort of schooling. Such low level of formal education of those managing these units would indicate that it would be quite difficult for them to go along with the rapidly changing market trends and production techniques etc.

Beside credit availability a very important variable of entrepreneurial skill is not very much present in the shoe manufactures. The low level of skills is a trap in which these small enterprises are stuck and are unable to find a way out. The lack of entrepreneurial ability has hindered the development of small enterprises in a variety of ways. One very important in these is inability to develop links with medium scale manufacturers. The study by Khalid Aftab and Eric Rahim (1989), which sought the difficulties of small units in tube well industry, also emphasizes the point. They observed, "Between 1960 and 1974, in the Punjab, Pakistan, many artisan units entered the production of small capacity tube wells. However, having reached a certain stage, even the largest and the most enterprising of these firms were unable to expand any further... the main source of this weakness lies in the fact that many of the skills associated with the

---

[*] The phenomenon of no schooling does not necessarily mean no education at all, because education (literacy) can be acquired from informal means as well.

use of these techniques are necessarily acquired through formal educational and training channels. The inability to expand beyond a certain stage is, therefore, identified with the inability to cross over into the modern sector. The 'barrier' lies in the social and economic background of the informal firms owner-manager which limits his capacity to absorb and attract through the market skills and resources needed to adopt the necessary technical and managerial improvements.[12] Hence this endogenous condition of firm's development i.e. personal initiative and dynamism of manager and its interaction with exogenous conditions determines the fate of any organization big or small; shoe making industry being no exception.

Figure 1
Level of Education of Employers (LEE)

Figure 1 shows that of the small-scale entrepreneurs

a)   10.84% were graduates and above,

b)   9.64% were intermediate,

c)   14.46% were metric,

d)   21.69% were middle, &

43.37% had no schooling at all.
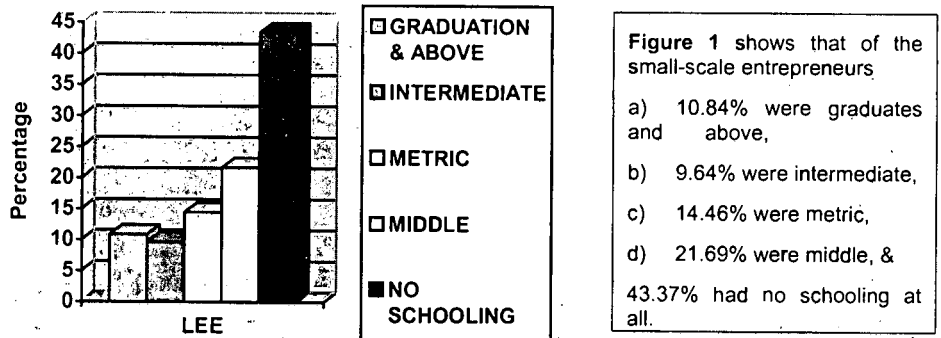
Out of all producers surveyed in Lahore, only one manufacturer had some sort of management training. All others had not received any management training to improve their managerial abilities.

Table 2 shows both the level of technical education and management training received by the small-scale producers.

Table 2
Technical Skill and Training of Employers (In Percentage)
(Total Number of Employers = 83)

Category	Percent	Management Training	Percent
Unskilled	98.80%	Never	98.80%
Skilled	1.20%	Once or More	1.20%

The data in Table 2 shows that only 1.2 per cent of the employers had some sort of skill / technical training, while the rest 98.8 per cent were technically unskilled. Let us clarify the table 2 above. When we are talking about formal

technical education it includes some diploma or short courses from any governmental or other institutes about designing or other skills etc. The data suggest that 98.80 per cent of the employers had not obtained any formal skills from a school or an institution, but it does not mean that they did not have any skill altogether. Instead they had obtained traditional skills of shoemaking through on the job training from a master-apprentice (*Ustad-Shagird*) system that is a major source of learning for many workers and employers alike. But the level of skill was very low and outdated, that was evident from the machines which they were using to produce shoes. On account of the low level of skills and lack of information about modern techniques these units suffer from a low level skill trap, which these employers usually do not recognise. Such low-level skill trap results in lower productivity and inefficient use of resources. Also, the lack of management ability and training often acts as a barrier to take initiatives for expansion of their businesses and modernization of technology. They also lack the capability or capacity to handle their book - keeping accounts of sales, or record of inventory etc. in a modern manner.

Figure 2
Level of Skills of Entrepreneurs (LSE)
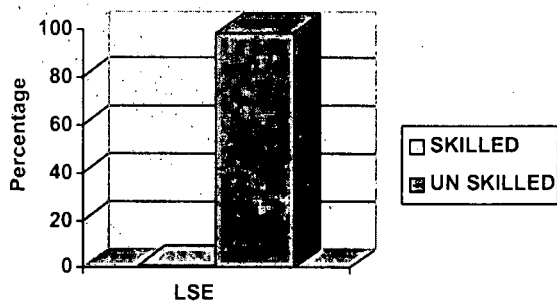
Figure 2 shows that

a) 1.2 % have some sort of technical skills.

b) 98.8 % of the small-scale entrepreneurs in the shoe manufacturing industry are unskilled.

3.4 Education, Training and Skills of the Labour

Data shows that the labourers employed by small-scale enterprises in the shoe making industry are mostly skilled. This data should not mislead us because such level of skill of labour is traditional and not modern skills. The labour is largely uneducated, and is usually employed for making hand made and traditional shoes. A major share of the labour force employed in this sector is usually entangled by loans, more often given by their own employers. The common reason given by employers is that the loans help the workers to remain regular and efficient. Small-scale manufacturers therefore usually hire unskilled labour and train them through experience.

Table 3 shows the level of skill of the labour employed by the small-scale shoe manufacturers in Lahore.

Table 3
Share of Skilled and Unskilled Employees (In Percentage)
(Total Number of Units= 83)

Category	Percent
Skilled	86.75%
Unskilled	13.25%

Table 3 shows that 86.75 percent of the labour force employed in the shoe manufacturing industry is skilled, while only 13.25 per cent is unskilled. No substantial increase in reward for labour was reported or observed by the surveyors during that period. Labour unrest and workers absenteeism were also not found in the industry.

Figure 3
Skill Levels of Employees (SLE)
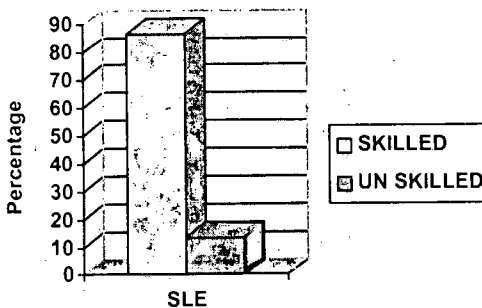
Figure 3 shows that
a)   87.75 % of the labour force is skilled.
b)   13.25 % is unskilled.

Informal apprenticeship training is still the most common way of achieving skills. Apprenticeship training is good and, for the society, a cheap way of learning the ways of the trade, but if it stands on its own it cannot bring the apprentice to a higher level of, training than the master and therefore apprenticeship training should be combined with vocational schooling (Sverisson 1997).[13] However until recently most vocational schools tended to cater for the formal sector and were not so much related with traditional main enterprises.

3.5 Nature of Ownership

Most of the small-scale shoe manufacturers (62.87%) were sole proprietors of their own business, followed by family ventures (20.48%) and partnerships (16.87%).

Table 4 shows the types of business by ownership in small-scale shoe manufacturing business of Lahore.

Table 4
Business by Ownership (In Percentage)
(Total Number of Units = 83)

Division of Firms	Percent
Sole Proprietorship	62.65%
Family Venture	20.48%
Partnership	16.87%

The common views that most of the firms in the small-scale shoe industry are family ventures, has turned out to be wrong. It might be possible that small-scale units of shoes might have been a family business previously, but currently the major part of this sub sector comprises of sole proprietors, followed by the family ventures and partnerships. Sole proprietorship can also be termed as self-employment, but not exactly. Because a sole proprietor has a greater chances to be the sole worker but he may have some labour under him, whereas the self-employed is the person employing only himself, if we want to be exact.

Figure 4
Type of Ownership (TO)

Figure 4 shows that
a) 20.48% of the business in small scale shoemaking industry is family business
b) 16.87% are partnerships; and
c) 62.65% are sole proprietorship
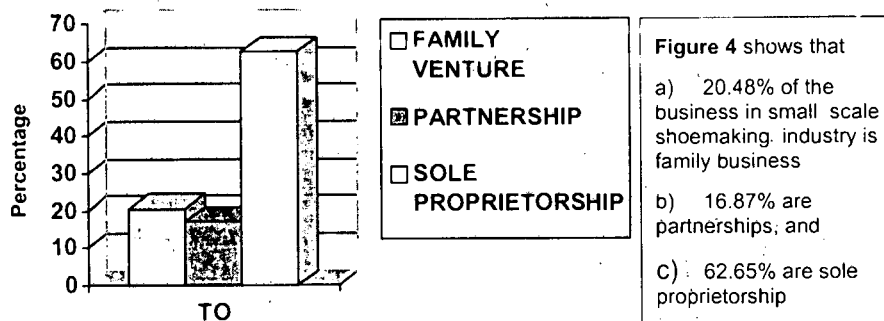
Promotion of self-employment is a major concern for most developing countries. This is mainly for the reason that it eases the governments of these countries from their social obligations of employment creation to a great extent. In this effort, technical training has been perceived as a short cut, which enables one to get self-employed. John Griesson, based on his substantial field research in developing countries, concludes that such governmental support is by no means, meaningful. To be meaningful, it is necessary to have a well-integrated scheme of enterprise promotion.[14]

3.6 Kinds of Shoes Manufactured

Nearly one-third of the small-scale shoe manufacturers (31.33%) were producing all kinds of shoes, followed by ladies shoes (25.3%), traditional shoes (18.07%), men's shoes (15.66%), and children shoes (9.64%).

Table 5 shows the types of shoes produced by the small-scale shoe manufacturers of Lahore.

Table 5
Shoe Type by Category (In Percentage)

Shoe Type by Category	Percent
All shoes	31.33%
Children shoes	9.64%
Ladies shoes	25.30%
Men's shoes	15.66%
Traditional shoes	18.07%

It is quite clear that the common practice among the micro and small scale production units is to produce all kinds of shoes, that is to produce men's shoes, ladies' shoes, children's shoes and traditional shoes. This practice is believed to follow to avoid the risk of business to run in losses as it happened in the case of most of the enterprises specialising in the traditional shoes. The ladies shoes are most of the time fancy and less durable than men shoes and have to be replaced earlier due to continuous use, that is why the producers who produce merely the ladies shoes feel to be satisfied by producing it and form the second largest category of the market segmentation by shoe type or the largest one by itself.

Figure 5
Types of Shoes Manufactures (TSM)
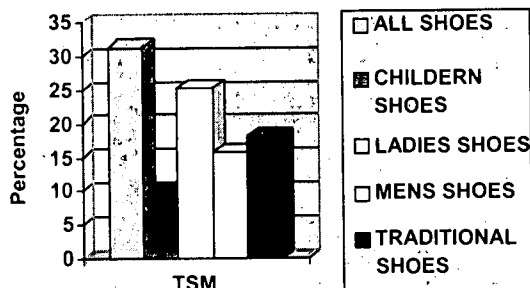
Figure 5 shows that

a) 31.33% produce all kinds of shoes,

b) 9.64% of the total produce children shoes,

c) 25.3% produce ladies shoes,

d) 15.66% produce men's shoes and

e) 18.07% produce traditional shoes

3.7 Monthly Sales and Sales Trend

Table 6 shows the data of monthly sales in the surveyed small shoemaking units in Lahore.

Table 6
Descriptive Statistics: Monthly Sales

Variable	Number	Mean	Min	Max	Q1	Q3	Median
Monthly Sales	83	910	25	3000	65	1750	375

These numbers are important to understand the monthly sales of the enterprises. Monthly sales have been calculated as pair of shoes. It is interesting to note that average (arithmetic mean) of monthly sales is 910 pairs i.e. on average a micro or small-scale shoe manufacturing enterprise produces 910 pairs of shoes but 50 percent of the producers have a sale less than or equal to 375 in a month, as indicated by the value of median. Hence, arithmetic mean is upward biased significantly. Similarly, substantial intra-industry heterogeneity is present because the lowest 25 percent of the firms have sales of 65 or fewer pairs monthly, whereas the highest 25 percent have sales of 1750 or more pairs per month. Such intra-industry heterogeneity shows that from the sales and production point of view not only all the enterprises are operating at margin, but it is possible that some of the firms have a wide margin of improvement in techniques.

3.8 Sales Trend

An idea about the monthly sales trend can be had from the statistics given in the following table.

Table 7
Sales Trend

Sales Trend	Percent
No Change in Sales	28.05%
Sales Go Up	9.7%
Sales Go Down	62.2%

The table indicates that a large number of companies, i.e. about 62.2 percent have reported a decline in their sales. This could be a wrongly reported answer as expected from such small scale operators due to their fear of taxes and other levies but we can safely suggest that due to competition both from local and foreign companies these small firms are facing a decline in their share of the market. Similarly, about 28 percent of the firms have reported no change in sales. So we can conclude with reasonable accuracy that generally the small scale industry is facing problems of either declining or stagnant sales, although there are about 10 percent firms which have reported an increase in their sales during the survey.

3.9 Access to Finance and Credit

Financial resources and credit facilities help the business enterprises in their existence, survival and expansion. Credit on easy terms and conditions, i.e. soft loan, is considered to be an important tool for bailing out the firms from conditions of losses, especially to meet the non-seasonal decline in demand or some sort of supply shocks that make the vulnerable enterprises go out of business or closure.

Micro and small-scale enterprises need moderate levels of capital to initiate their business ventures. For second-generation entrepreneurs who inherit their family business, few investments are needed since fixed and working capital can be taken over without significant cash outlays. However, these investments

are likely to be higher when the enterprises are either established by the entrepreneurs themselves or bought. There are various reasons given by small entrepreneurs for being fully dependent on their own or family's financial resources when they set up new businesses. Firstly, banks cover operational costs via interest revamps and try to avoid this through costly extraction of information. The revamps of small-loans are often not sufficient to cover these costs. As a result, formal commercial institutions are unlikely to offer loans to micro and small scale entrepreneur especially to starters who have not yet proven that they can run their small businesses profitably. Secondly, the entrepreneurs themselves may not be interested to apply for formal financial assistance that doesn't have the flexibility with respect to repayment that is so important for emerging small businesses. Thus, it may be expected that financing the start up small business takes place through informal financial arrangements which includes funds from relatives, friends, and business partners, such as suppliers and traders, and own funds. Many entrepreneurs may find personal or family savings adequate to launch a micro enterprise. Profits from this undertaking may be sufficient to provide day-to-day working capital and to cover the needs of producer and his family. But expansion may require access to more than one source of external finance formal and informal. Business expansion may also encompass process and product innovations that require purchase of new capital equipments which cannot be financed by personal funds.

Hence, it is rational to conclude that micro and small-scale enterprises are mostly self-financed. The probability of failure for small ventures is considered to be high that induced lack of interest of both formal and informal suppliers of funds. Majority of micro and small-scale entrepreneurs have grown about as far they can by using their own resources.

Government itself has acknowledged this thing as "the growth of small-scale industry is mainly hampered by the non-availability of credit facility in the past."[15]. Recently, Khushali Bank has started its operation to provide credit facilities for small and micro enterprises but there are some notional or actual hindrances that have stopped the institutional support to be fruitful. At the time of the survey, the Khushali Bank was not in operation but the Small Business Finance Corporation and other institutions like Small and Medium Enterprises Development Authority (SMEDA) were working for small-scale enterprises. Table 8 given below shows that about 94% of the sample under study had never availed any credit from banking sources. Whereas some of the respondents expressed their apprehension that they had taken loan from banks or co-operatives, government might have charged taxes, as they become a part of official record. The point to be made here is that micro and small-scale firms should be differentiated from medium scale enterprises that have relatively more institutional facilities.

Table 8
Realised Access to Credit

Obtained Credit	Percent
Never	93.98 %
Once or more	6.02%

S. Akbar Zaidi in his book "Issues in Pakistan Economy" (1999) states that the single most important constraint faced by the small-scale sector has been the availability of credit. All surveys consistently come up with this finding. Khalid Nadvi, in his survey of 328 small-scale enterprises found that only two of them had been able to obtain credit from the formal banking sector[16]. This finding is in line with our survey findings. But another important variable for the existence and survival of the firm is managerial ability, which is discussed in this paper elsewhere.

The institutional settings in which these micro and small enterprises operate needs to be managed in such a manner that they should not be neglected relatively. Enough resources and planning should also be diverted towards the development of this sector. Many of the economic policies followed by national governments usually justified by professionals unrelated to SMEs, have significant impacts on the development of SMEs, the effects are often negative and may offset and outweigh the positive effects of official SME promotional programs.[17]

3.10 Production and Employment Conditions

Most of the small-scale enterprises are financially poor and therefore they do not have much savings in order to reinvest and expand their business. Usually, the retailers/shopkeepers and middlemen buy shoes from small producers on credit and make payments after a few months that puts pressures on their limited financial resources.

The major production inputs are labour, capital (financial and physical), and managerial abilities. Raw material used by men's shoes and traditional shoes is somewhat expensive than that used for children and ladies shoes. Therefore, the price per unit in children shoes and ladies shoes is lesser comparatively. Leather raw material is reported to be of lesser quality, because good quality leather is exported out of the country at much higher prices.

Table 9(a) shows the summary statistics of number of machines with the small-scale shoemaking enterprises at the initial time, at the start of their business, and Table 9(b) shows the number of machines working in these businesses at present.

Table 9(a)

Descriptive Statistics: No. of Machines Initial

Variable	No. of Firms	Mean Machines Per Firm	Median	St. Dev.	Min	Max	Q1	Q3
No. of Machines (Initial)	83	3.00	3.00	0.00	3.00	3.00	3.00	3.00

Although in a more macro perspective, but the article by Tariq Hakim[18] suggests that the Pakistan footwear industry is **labour intensive and needs much less capital investment** as compared with other heavy industries. The present practice being followed by the shoe manufacturers is that they employ

little labour and capital and start production. Although labour is cheap and available, but it can't be employed additionally due to sales constraint which occurs due to many market and non-market reasons. So, the employment generation may not be as big a reward but self-employment and sole proprietorship still happens to be a major contribution.

Table 9(b)
Descriptive Statistics: No. of Machines Present

Variable	No. of Firms	Mean Machines Per Firm	Median	St. Dev.	Min	Max	Q1	Q3
No. of Machines (Present)	83	3.00	3.00	0.00	3.00	3.00	3.00	3.00

Tables 9(a) and 9(b) show that, when we see the relationship between number of machines at initial stage and at present, the number of machines remains unchanged. An implication drawn from these figures is that this sub-sector, as suggested by many researchers on micro enterprises, is operating without technological improvements. This sector has reached a state where new machines can be added to the units, provided finances and expertise are made available.

Table 10 below shows the summary statistics of number of workers employed by the small-scale shoe-manufacturing firms at the start of the business vis-à-vis presently employing. This table, when combined with the tables 9(a) and 9(b) can provide important results that are discussed below.

Table 10
Descriptive Statistics: No. of Workers Initial and Present

Variable	No. of Firms	Mean Workers Per Firm	Median Workers Per Firm	St. Dev.	Min	Max	Q1	Q3
No. of Workers (Initial)	83	2.964	2.00	1.984	2.00	7.00	2.00	2.00
No. of Workers (Present)	83	2.904	2.00	2.458	2.00	15.00	2.00	2.00

Table 10 shows that the initial and present number of workers is not significantly different, which means that on average firms employ two labourers. Interestingly, the standard deviation, that shows the average dispersion of observations from mean, has increased as compared to that of initial workers. It suggests that there has emerged greater variation in the number of labourers

across firms. Similarly, the range statistic i.e. the difference between the maximum and the minimum value has increased. Range statistic was 5 workers for workers initially employed, but it had increased to 13 at present. We cannot generalise this figure to say that the employment generation in small-scale shoe manufacturing has improved over the years, because the mean number of workers per enterprise has not increased. This may be possible due to lesser access to finance and credit, lower level of entrepreneurial skills with the result that these units have failed to develop into medium or large-scale firms.

3.11 Age of Firms

Table 11 shows in percentage the number of years of the small-scale shoe-manufacturing units in operation.

Table 11
No. of Years in Operation of Firms

Number of Years in Operation	Share in Percentage
1	21.69%
2	8.43%
3	2.41%
4	6.02%
5	6.02%
6	3.61%
7	2.41%
8	3.61%
9	1.20%
10	3.61%
11	6.02%
12	1.20%
13	1.20%
14	4.82%
15	1.20%
16	2.41%
19	1.20%
20	2.41%
21	8.43%
23	1.20%
26	2.41%
27	1.20%
39	2.41%
40	1.20%
41	2.41%
53	1.20%

Table 12 below shows the age of the shoe-manufacturing firms during the past 53 years in decades.

Table 12
Age of Small-Scale Units (By Decades)

Age of Firms in Number of Years	Percent Share
1-10	59.00 %
11-20	20.50 %
21-27	13.25 %
39-41	6.00 %
42-53	1.25 %

Table 12 shows the decade wise age distribution of small-scale manufacturers. It suggests that 59 percent of the firms are 1 to 10 years old; while 20.5 per cent of the firms are 11 to 20 years old; 13.25 percent of the firms are 21 to 27 years old, 6 percent are 39 to 41 years old, and only 1.25 per cent are 53 years old. In other words, approximately 60 per cent of the firms are relatively new firms in the market, while the survival rate of the firm diminishes, as they become old firms. Hence, 20 percent of the firms had an age of more than 20 years. The rest of the units were established during the last twenty years. Does it mean that there is enough profit margin in this sector that is attracting firms to shoe-making industry? The researchers believe that due to overall reduction in economic growth rate and non-availability of jobs both in the private and public sectors, people have tended to start their own business.

Figure 6
Decade Wise Age of Small-scale Units in Operation (DWASUO)

Legend:
- 1-10 years
- 11-20 years
- 21-27 years
- 39-41 years
- 42-53 years
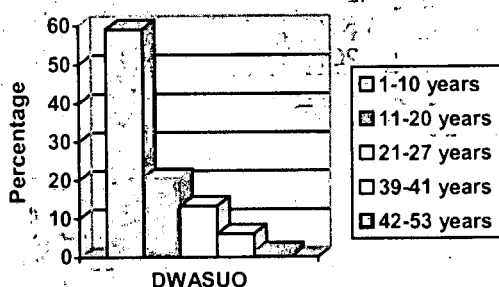
Figure 6 shows that

a) Approximately 60% of the firms are 1-10 years old,

b) 20.5% are 11-20 years old,

c) 13.25% are 21-27 years old,

d) 6.0% are 39-41 years old; and e) only 1.25% are 53 years old.

3.12 General Comments

Technological dualism is causing varying patterns of growth, market power of business, unit profitability, and changing capital to labour ratio in favour of capital, so the employment generation prospects seem to be lesser than expected. Increased competition from new local and foreign firms and changing customer loyalties have been restricting the expansion of existing / old firms.

Because of increased competition, use of old technology, declining customer loyalties and insignificant expenditure on items of non-price competition and lack of occupational mobility, there has been a significant reduction in profitability of old units.

There is a situation of growth recession in the small-scale shoe industry working in Lahore. 62 percent units reported that sales have gone down in last five years. 28 percent reported that it remained the same as last year while only 10 percent of manufacturers reported increase in sales. Due to increased competition, there is a significant decline in market share and market power of the individual firms in last five to seven years. Only those manufacturers have survived well who have adopted better technology and are moving towards automation and using relatively cheaper raw material. Most of the units are either children or ladies shoe manufacturers. Although rest of the producers are facing a decline in business still they do not feel comfortable to change their occupation. Consequently there has been a significant reduction in normal profits or in plain words they are surviving at the subsistence level.

Features of product quality and quality parameters are not properly communicated to customers by the salesmen / employers, hence the positive theoretical link between the skill of labourer and sales cannot be empirically rationalized precisely.

Because of aggregation problem, caused by substantial products differentiation / lack of standardization and product line diversification, the effect of change in prices of shoes on the monthly sales of shoes cannot be estimated properly. The downward slide of prices both because of an increase in supply over demand makes it difficult for small-scale firms to meet their production costs from the revenue received after sales, resulting in losses or survival on subsistence level.

The federal government has exempted the shoe industry from payment of duties and taxes on import of soles and heals for use in export footwear. The exemption has been allowed through a Central Board of Revenue (CBR) notification No./ SRO 79(I) /2001, dated Feb. 6, 2001. It would be available for the footwear manufacturing on the condition that the imported items are re-exported.[19] As we know that almost all the manufacturers are concentrating on local market and don't have export concerns, so they cannot avail this institutional facility. They can only be benefited if they find linkage with the firms having export concerns.

Interestingly, the small-scale industry is working for self-employment and the like issues but the large shoe making firms have good business and make profit. In 2000-01 Bata Pakistan earned Rs. 23.7 million pre-tax profit for the first six months of the year ended June 30, 2001, on net sales of Rs. 875.2 million.[20] These intra-industry differences speak for themselves, although *small is claimed to be beautiful* but large is efficient and profitable (Economies of Scale).

4. CONCLUSIONS

In the survey of Small-scale shoe manufacturers in Lahore, 88 shoe manufacturers were interviewed through personally administered questionnaire technique, and the following results were reached:

1.   Most of the activities of small-scale shoe manufacturing industry were in the non-formal (unreported) sector. The products of this sector are not perfectly homogeneous and comprise of men shoes, ladies shoes, children shoes, and traditional shoes. Some of the small-scale producers produce all kinds of shoes and therefore cater for all types of shoes.

2.   Because small-scale shoe industry is competing in the domestic market, therefore these small-scale manufacturers find it difficult to compete with cheaper and better quality products from abroad as well as from large-scale formal sector.

3.   It was noted that the education level of employers was very low. 10.84 percent of the small-scale entrepreneurs were graduates and above, 9.64 percent intermediate, 14.46 percent metric, 21.69 percent middle, and the rest 43.37 percent had no schooling at all.

4.   Almost all entrepreneurs had not received any management training to improve the operation of their units.

5.   Labour employed by small-scale entrepreneurs in the shoe making industry is traditionally skilled.

6.   Most of the small-scale shoe manufacturers (62.87%) were sole proprietors of their business, followed by family ventures (20.48%), and partnerships (16.87%).

7.   Nearly one third of the small-scale shoe manufacturers (31.33%) were producing all kinds of shoes followed by ladies shoes (25.3%), traditional shoes (18.07%), men's shoes (15.66%), and children shoes (9.64%).

8.   Most of the small-scale entrepreneurs are financially poor and therefore they do not have much savings in order to reinvest or expand their business.

9.   These units do not have enough resources to meet financial crisis. Small-scale shoe manufacturers did not receive any help from the government as such, because no such formal system exits, and also did not go for any kind of ISO certification.

10.   Credit availability has a negative impact on employment generation on account of change in choice of techniques in favour of labour displacing technology. Automation and mechanization of small-scale units have however strengthened their possibilities of survival.

11.   As far as the age of small scale units is concerned, 59 percent of the small-producer's firms are 1 to 10 years old, while 20.5 percent of the firms are 11 to 20 years old, 13.25 percent are 21 to 27 years old, 6 percent are 39 to 41 years old, and only 1.25 percent are 53 years old. In other words, about three out of every five of the firms are relatively new entrants in the market, while the survival rate of the firm decreases, as they become old.

12. Due to new entrants in the market, market share (monthly sales) of the old entrepreneurs in the market goes down. Hence, the market share (monthly sales) is depicted by two trends: initially it increases as the age of unit increases, but then it declines after some time. It can be attributed to two reasons. Firstly, the old producers have not updated their technology and have contended with limited sales. Secondly, the new entrants are capturing the market by adopting new technologies and posing more competition.

13. Employment generation prospects in relation to level of skills in labour were correlated positively and therefore implied that skilled labour manage to get jobs.

REFERENCES

Aftab, Khalid and Eric Rahim. Barriers to the Growth of Informal Sector Firms. A Case Study 'The Journal of Development Studies Volume 25, No.4, July 1989.

Alice Regensburg Shoes, (ed). American Footwear Institute The New Book of Knowledge Vol. 17, Grolier Inc., Danbury Conn. USA, 1982 ed. pp. 162-163

Everyman's Encyclopaedia, Boots & Shoes, Vol. 2, Sixth Edition, J. M. Dent & Sons Ltd. London, 1978, pp. 307-309

Briggs, Asa (ed). Footwear, The Longman Encyclopaedia, First edition 1989, p. 384

Burki, Abid Aman and Ubaidullah Gujranwala's Urban Informal Sector, "Evolution Or Involution?" Pakistan Economic and Social Review volume XXX No.1, (summer 1992).

David, Fisher and Reginald Bragonier Jr. Personal Items: Footwear, What's What: A visual Glossary of the Physical World. Hammond Inc. USA, 1981 pp. 200-203

Economic Survey 2000-2001, Government of Pakistan, Economic Advisor's Wing, Finance Division, Islamabad

Finniston, Monty Sir, ed. Inventions & Technology: Footwear Manufacture, Oxford Illustrated Encyclopaedia, Vol. 6 Oxford University Press, 1995

Griesson, John. (ed). Training for Self-employment Promotion: A Conceptual Framework Small Enterprise Development. The Experience of the South and the North. P.M. Mathew

Grisewood, John. (Compiled by) Shoe. The Simon & Schuster Dictionary Encyclopedia, Wanderer Books, NY, 1985 ed. p. 291

Hakim, Tariq. Footwear Industry can Become Major Foreign Exchange Earner The Daily Dawn 29th May 2000

Leon C. Megginson, Mary Jane Byrd, & William L. Meggison. Small Business Management, An Entrepreneur's Guidebook, 4th Edition, McGraw-Hill / Irwin, 2003.

Little, Ian M.D; Deepak Mazumdar, John M. Page Jr. Small Manufacturing Enterprises: A Comparative Analysis of India and Other Economies. Oxford University press 1987.

Mathew, P.M (ed). Small Enterprises and the Informal Sector Key Issues. *Small Enterprises Development. The Experience of the South and the North.*

McDowell, Colin, Shoes: Fashion and Fantasy, Amilcare Pizzi Spa, Milan, 1989

Nadvi, Khalid. (ed) Competitive Growth Lessons for Informal Industrial Units. *The Informal Sector in Pakistan.* D. Shah Khan. Vanguard, Lahore 1998

New Age Encyclopaedia, Shoes Vol. 16 (Encyclopaedia International), Lexicon Publications Inc. USA 1979, pp. 446-450

Occasional Paper no.9, April 28, 1999. Lahore School of Economics:

Perkins, Dwight H. and Steven Radelet, Donald R. Economics of Development 5th edition. W W Norton and Company 2001

Petersen, Craig H. and Lewis, Chris W. Managerial Economics, Macmillan Publishing Company, NY, 1994

The Encyclopaedia Americana, Shoes Vol. 24 International Edition 1987, Grolier Inc. USA, 1987, pp. 745-749

The New Encyclopaedia Britannica (Micropaedia),Shoes Vol.10, 15th edition, Encyclopaedia Britannia Inc. USA, 1986, pp. 754-755

The World Book Encyclopaedia, Shoes, Vol.17. World Book Inc. USA, 1988, pp. 430-432

Snodgrass, Donald R. and Tyler Biggs. Industrialization and the Small Firm Pattern and Policies International Center for Economic Growth and the Harvard Institute for International Development, San Francisco. California 1996.

Statistical Year Book 2001 Government of Pakistan.

Tamir Agmon & Richard L. Drobnick ed. Small Firms in Global Competition, Oxford University Press, NY 1994

Timothy S. Small Business Entrepreneurship and Beyond Hatlen, Prentice Hall 1997

Van Dijk, Accra Mien Peter and Roberta Rabettoti (ed) Enterprise Networks and Technological Change: Aspects of Light Engineering and Metal Working *Enterprise Cluster and Networks in Developing Countries* EADI Book Series 20 London Frank Cass.

Van Dijk, (ed) Meince Pieter Small Enterprises and Key Issues. *Small Enterprises Development. The Experience of the South and the North.* P.M. Mathew

Zaidi, S. Akbar. Issues in Pakistan's Economy, Oxford University Press, 1999

The Daily Dawn 8th Feb. 2001.

The Daily Nation. 8th October 2001.

NOTES

1. Petersen, Craig H. and Lewis, Chris W. Managerial Economics, Macmillan Publishing Company, NY, 1994

2. Timothy S. Hatlen, Small Business Entrepreneurship and Beyond. Prentice Hall 1997.

3. Perkins, Dwight H. Steven Radelet, Donald R. Snodgrass, Malcolm Gillis, Michael Roemer. Economics of Development 5th Edition., WW Norton and Company 2001.

4. Mathew, P.M (ed). Small Enterprises and the Informal Sector Key Issues. Small Enterprises Development the Experience of the South and the North.

5. Nadvi, Khalid. (ed) Competitive Growth Lessons for Informal Industrial Units in The Informal sector in Pakistan. D. Shah Khan. Vanguard, Lahore 1998.

6. Mathew, P.M (ed). Small Enterprises and the Informal Sector Key Issues. Small Enterprises Development the Experience of the South and the North.

7. Dijk, Van Meince Pieter. (ed) Small Enterprises and Key Issues. Small Enterprises Development. The Experience of the South and the North.

8. The National Income accounts define the small and large scale sectors as "Large scale Manufacturing covers the establishments registered under section 2 (I) and 5 (I) of the factories all such manufacturing establishments not covered there under. Section 2(5) refers to factories which employ 20 or more workers on any day during the use power in their manufacturing operation. Section 5(I) pertains to the factories wherein a manufacturing process is carried on or is ordinarily carried on whether with or without the use of power whenever ton or more workers any day of the 12 months in diately proceeding". Statistical Year Book 2001 p-731.

9. Dijk, Van Meince Pieter. Small Enterprises and Key Issues. in *Small Enterprise Development- The Experience of the South and the North.* P.M. Mathew (*ed*)p 32

10. Occasional Paper no.9, April 28, 1999. Lahore School of Economics.

11. Perfect competitive market would have many buyers; many sellers; homogeneous product with close substitutes; perfect information of the market; no bar to entry and exit of old and new firms respectively; perfect mobility of factors of production.

12. Aftab, Khalid and Eric Rahim. Barriers to the Growth of Informal Sector Firms. A Case Study. 'The Journal of Development Studies Volume 25, No.4, July 1989

13. Dijk Van Meince Pieter. (ed) Enterprise Networks and Technological Change: Aspects of Light Engineering and Metal Working. Enterprise Cluster and Networks in Developing Countries by Accra and Roberta Rabettoti. EADI Book Series 20 London Frank Cass.

14. Griesson John. (ed) Training for Self-employment Promotion: A Conceptual Framework Small Enterprise Development. The Experience of the South and the North. P.M. Mathew.

15. Government of Pakistan Economic Survey 2000-2001, Economic Advisor's Wing, Finance Division, Islamabad.

16. Zaidi S. Akbar, Issues in Pakistan's Economy (1999) p-132

17. Snodgrass, Donald R and Tyler Biggs Industrialization and the Small Firm Pattern and Policies. A co-publication of the International Center for Economic Growth and the Harvard Institute for International Development. San Francisco. California 1996.

18. Hakim Tariq "Footwear Industry Can Become Major Foreign Exchange Earner" Dawn 29th May 2000.

19. The Daily Dawn 8th Feb. 2001

20. The Daily Nation. 8th October 2001

HRM TRENDS AND DEVELOPMENTS IN PAKISTAN

Dr. Mushtaq Sajid [1]

ABSTRACT

The theme of this article is to establish the nature and importance of HRM and how it emerged, to provide some evidence of its context, to discuss its potential and future development. This paper is not intended to be solely about human resource management but includes comparison and analysis about its discipline as well. It also examines some of the alleged differences and similarities between both subjects and terms.

1. INTRODUCTION

Human resource requires more attention and careful management than any other resource of the organizations. In the 1980s and early 1990s the term HRM (Human Resource Management) came into academic horizons and was increasingly used by the practitioners and researchers worldwide. The last two decades have seen a marked change in HRM particularly in those activities, which involve acquiring, developing, motivating and utilizing human resources actively in the business. The major purpose of HRM is to increase and improve the productive contribution of personnel to the organization in more ethical, social, and administratively responsible way. This purpose emerged from commonly called industrial relations, personnel administration, industrial psychology, and personal management. HRM is not just another personnel management fad. Research shows that its aim is to create a whole organizational culture that binds workers to the company's objectives with full professional commitment, integration and quality work.

2. HRM TRENDS AND DEVELOPMENT

The 21st century will bring with it enormous opportunities but also enormous pressure, if the companies will not improve the productivity of the people and treat them 'human being' which are the vital objects of all the economic activities leading towards industrial development. Now it is worldwide consensus that human resource is one of the major means of increasing efficiency, productivity and prosperity of the firm.

The present scenario of HRM did not suddenly appear. A review of this evolution shows how the effort of early pioneer led today's more sophisticated and more proactive method of utilization **6Ms i.e. man, money, material, machine, method and market.** Indeed, the human resource planning has been a function of management since the origin of modern organization. In 1890, Alferd Marshal observed that the head of the business must assure himself that his managers, clerks and foremen are the right men for their work and are doing their work extremely well. Human resource planning is not a recent notion but it goes back right from the very beginning of the social and

---

[1] Dr. Mushtaq Sajid is Director, SZABIST Islamabad.

industrial management. Division of labor, organization of management at various levels, work simplification, application of standard for selecting employees, arrangement of short term and long term training programs and measuring the performance were all principles applied early in industrial management. In world wars and the post war era the human resource planning and management focuses intensified on employees, productivity and efficiency.

With some difference of opinion, management scientists have now reached the consensus that HRM had its origin overwhelmingly in USA experience along with rich literature and strongest empirical foundation. It is argued that the HRM originated in USA in the early 1980s.

However, the term HRM challenged and frequently replaced the previous popular term discipline personnel management and industrial relation (IRs). Moreover, students in universities appeared to respond more positively for the enrolment of the new course HRM, whereas, the courses concerned personnel management/industrial relations also exist in academicism circles with comparatively less popularity.

The major American and British Business schools introduced HRM courses into their core curriculum. It seems that HRM has become a fashionable and favourable topic all over the world both in management theory and as applied management practice.

The overview of the model from personnel management to human resource is as under:

FROM PERSONAL MANAGEMENT TO HRM

Development of PM functions • Acolyte of • Benevolence • Human Bureaucrat • Consensus negotiator. • Organization man. • Man Power analyst	Tensions within PM function. • Integration • Employee Commitment Interests. • Versus Organizational Interest	Resolving • The Tension • HRM Goals • Integration. • Employee commitment • Flexibility • Adaptability. • Quality.	Strategic Role for HRM/PM Managers
			General Management Absorbs HRM Function into Strategic Planning
		External Competitive Pressures Influencing the Development of HRM	Operational Role For HR M/PM Managers

(Torrington & Hall 1987 & Guest 1987)

2.1 How HRM is Different from Personnel Management?

There is a difference between human resource management and personal management. It is obvious for the above terminology the predominant theme that is held to differentiate HRM from its predecessor, personnel management, is a broadening or widening notion. The leading advocates of HRM, who are actually behavioural scientists in the USA, see it as an organization-wide philosophy, which is much broader and more strategic, oriented and fewer problems centered than personal administration. Its implications and long run goal interpretation place it as something new and different.

George Straus has compared the messages of the original human relations literature with that of the organization development and change models of the 1960's and 1970's. In the shape of the summary, the following table-2 sets out the differences in the textual treatment of human resource management and organizational practice of personnel management.

TABLE 2
THE DIFFERENCE OF PERSONAL MANAGEMENT AND HRM

Comparison	Personal Management	HRM
Time and planning perspective	Short term, reactive adhoc and marginal	Long run proactive strategic and integer
Psychological contract	Compliance	Commitment
Control system	External control	Self control
Work relation perspective	Pluralist, collective, low trust	Unitarist, high trust individual
Preferred structured system	Bureaucratic Centralized defined roles	Organic, developed flexible roles
The roles	Specialist and professional	Largely integrated into line management
Evaluation	Cost- minimize	Max utilization

The above table shows a comparison between HRM and personnel management, which have been highlighted by British writer and emphasized here the fact that these specific differences are due to competitive, integrated nature of the product market environment, and high performance of individual companies which accord HRM relatively high priority; thirdly the declining level of unionization of USA and UK, finally, the relatively limited power and status of personnel management function in individual organizations the white collar sector of employment is increasing.

2.2 The Four Major Stages of Growth and Evolution of the Human Management (HRM)

The four major stages of growth and evolution of the human management (HRM) function are as follows

The Reactive HRM Function

Here the main purpose is seen as maintaining harmony and avoiding disruption through strikes etc and exists generally where organizations are operating in near monopoly situations with assured growth - the interactions between HR and operating managers being assured under normal situations at this stage of reactive HRM.

The Independent HRM Function

This function is recognized as an independent entity. In this stage, while HR is survived in setting up industrial systems and procedures for operating managers, but is not fully responsible for monitoring or correcting the problems in the systems - only being marginally involved in various processes and other functions or results. Other functions would mostly seek HR's help in administrative or on few specific issues, and line managers do not see HR as a repository of expertise.

The Supportive HRM Function

This has its own direction with distinct status within the organization and actively contributes to the efforts of other functions in producing results. Organizations requiring product or technology changes rapidly in a competitive scenario generally need such HR involvement with high demands for qualified and competent manpower often in a high turnover or mobility situation. Emphasis on people development and motivation generation comes from such HR but their understanding or involvement in total business perspective remains limited or inadequate even with higher functional participation.

The Integrative HRM Function

This is the stage when the competitive success of the organization involves HRM significantly in an integrated manner and demands such capabilities from the HR specialists. Their roles shift from a facilitator for a functional peer with competencies in other functions and are recognized as an equal partner by the others. The typical HRM in this case is geared to contribute to organizational objectives of profitability for monitoring employees' satisfaction since it is seen as surrogate to customer satisfaction.

3. HRM AND STRATEGIC MODELS

There was evidence from McKinsey's 7'S framework model. According to this framework effective organization change is a complex relationship between seven S's. HRM is a total matching process between the three hard S's (Strategy, Structure, System) and the four Soft S's (Style, Staff, Skills, Super-ordinate goals). Clearly, all the S's have to complement each other and have to be aligned towards a single corporate vision for the organization to be effective. It has to be realized that most of the S's are determined directly

or indirectly by the way human resources are managed, and therefore, HRM must be a part of the total business strategy. There is also a great deal of emphasis about the need for "Strategic HRM". The Michigan group developed the notion of strategic HRM that entailed the interconnection of business strategies, organizational structures and HRM where HRM systems were best designed to support the implementation of corporate strategy. At the heart of the Harvard approach HRM is the responsibility and capacity of managers to make decisions about the relationship between an organization and its employees such as to maximize the organizational outcomes for key HRM stakeholders. It focuses on manager's responsibility to manage four key HRM policy areas: employee influence (participation), human resource flow, the reward systems and work systems. Yet another school of thought called "open" or "contingent" approach argues that competitive advantage will accrue to those best able to exploit environmental opportunities and avoid or survive threats and that the strategic management of human resources will assist organizations in this by encouraging and generating the appropriate sorts of behaviours, attitudes and competencies from employees. Whichever way it may be defined, ultimately a strategic approach to human resource management must culminate in the implementation of policies and practices designed to enable, support and engender behaviours consistent with organization's strategic intent. This demands achievement of a good fit between HR and the business strategy. Once the strategic plan is formulated, the focus has then to shift to strategy implementation - a process of aligning the functions of an organization with the strategy in order to achieve the business results. This valuable academic debate is useful for determining policy and direction and to decide for each organization the course best suited to meet their vision and mission. They have to formulate the above may sound quite theoretical, but one of the issues that often exists and need to be corrected, is the identification of the stage of HRM that is best needed for the results in any organization, and the actual situation that exists. It has been my experience that there are considerable differences in what is stated or structured, to what is the actual situation and specially compared to what is best required. In fact, to a large extent these are personality driven depending on or varying with personal relationships and the trust between each of the top management members and are often based on their individual competencies and limitations and not necessarily as designed or intended.

4. HUMAN RESOURCE CHALLENGES

As the time moves on steadily and relentlessly in the new millennium, we need to review the challenges for the HR function and its responsibilities in organizations to cope with the new trends. In the start of the century it is very convenient to know how far and in what direction we are progressing but also give the distance to our destination and are often excellent anchors to take time off to re-examine the future course of action for the organization and resource management.

'It can now be said that we have moved to the era of not just change but an accelerated rate of change. As compared to the past, the twenty-first century corporations are getting to be globally market driven ones with 'invest anywhere and share everywhere' concept.

At a practical level, we must anticipate and prepare for the likely HR challenges in general that exists or may be expected in the coming future - the main purpose and theme of this article. They are consequent to the vastly increased competition for many and likely in future due to rapid development of technology especially the impact of IT and internal necessities and/or resulting from above stated causes. With technology up gradations, much greater use of it and forthcoming e-commerce etc. new breed of 'knowledge workers in 'learning organizations' will make the differentiation. This intellectual capital will demand much nurturing from the enterprise in order to give back in the shape of superior results. Considerable work will be essential in building a positive organizational climate within which improving performance level is not only appreciated and rewarded but becomes a way of life. The HR team will be only one of the important pillars and the other functions will certainly and equally have to do a lot of upgrading for improving the organizational results. Team work will therefore be a key driver in any organization that will demand and result in high performance both at all individual levels and also across functions and teams continuously and consistently. It goes without saying that the effective management of industrial relations will continue to demand a very high priority not just to 'do well' but now for the very survival of both the organization as well as employee jobs. Flatter organization structures are getting to be the order of the day instead of latter organizations - empowerment and modern management information systems has made the increase in span of control, delivering and restructuring with optimum manpower utilization possible. Managerial productivity has been a neglected area for most and value addition from this area will demand far greater attention. Use of modern HR techniques and tools will become a necessity to change from the managing by instinct syndrome. These will include strategic measurement systems, scorecards, surveys etc. as a base to help make quality decisions. Building of self-driven and committed employees with competencies necessary for high level of sustained performance has always been major challenge to HR and top managers of any enterprise and this is getting accentuated day by day. Retention and motivation of key employees, and their backups will therefore be a major challenge for which career planning will be important. Creating an open organization culture with empowered employees, as the foundation to build such commitment will be another major policy challenge for the HR people in particular. No organization can remain an island and therefore the leadership will have to play a greater role in contributing and anticipating actively in the environmental and society issues yet another important challenge. Similarly, planning to manage any disaster - both internal and external will tax the HR managers who will have a much larger contributory role in this area in the coming future, along with others. The

performance of HR managers along with their other team members will be an important key and a vital success factor. They will need far greater support and involvement from the top management and other functions towards maintaining and ensuring the future success of the twenty-first century organizations.

In short, the early practices of jobs forecasting succession planning has broaden into a concern with establishing a more explicit linkage between human resource planning has broadened into a concern with establishing a more explicit linkage between human resource planning and the larger organization strategy and business planning of the organization. Moreover, the idea of selection, training, performance appraisal and compensation decisions being heavenly centered on the role of individual employee with their detailed job description, has guided that effective team working and participative decisions are playing important roles to achieve the effective performance in business organization. In conclusion, still there is a strong contention and race of struggle to take the lead in the academic and professional field but obviously only time will fill, which of these and other possible rival scenarios offer more accurate description of the reality in future. The new technological change, downsizing, rightsizing and privatization management can also play role for future developments/trends and accept the challenges of the future.

REFERENCES

Andrea Cavore, S.V.Chiesa, Management Style in Industrial Research and Development Organization, *European Journal of Innovative Management* 3: 1:2000,pp 45-52.

Beaumont P.B (1993), Change in Industrial Relations, Rutledge; London, UK.

Dawn M.Nayler, Soul Western Managers are Encouraged to Adopt JMPs Management. *Employee Relations*, Vol 22: 2:2000.pp 160-74.

Deckop R.J.and Mahoney T.A (1986); Evaluation of Concept and Practice in Personnel Management/HRM, *Journal of Management*, Vol: 12(2), pp223-41.

Explaining Ethical Failures of Leadership Terry L. Price, *Leader and Organization Development*, Vol. 21:4:2000 pp I7-18

Khalid, M (1995), Managing Human Resources, Management Horizons, 1994-95,pp 68-72.

Laura M.H (1989), The New Game of HR: Playing to Win, *Personnel Journal* (June, 1989, pp 19-22).

Low Sui Phengs Ben S.Lee, East Meet West: Leadership Development for Construction Project Management. *Journal of Managerial Psychology*, Vol2: 6:97, pp 383-400.

Mona Tayab (1997), Islamic Revival in Asia and HRM. *Employee Relations*, Vol: 19:4:97 pp 352-364.

Peter B. Peterson (1988), A Pioneer in Personnel, *Personnel Administrator*, June I988, pp 60-64.

Satisfaction, Tension, and Interpersonal Relations: A Cross-Cultural Comparison. *Journal of Psychology,* Vol: 10:8.1995. pp 13-19.

Sajid, M.A (1997), Management Training and Development Practices, *Journal of Social Sciences*, Vol: 2:2, AIOU

Seong Skim and D.R.Briscoe (1997), Globalization and New Human Relations Policy in Korea. *Employee Relations* Vol: 19:4:97 pp 298-308.

Human Identification in Information System: Management Challenges and Issues. *Information Technology and People.* Vol: 7: 4:94,pp 6-37,

George J. Stockport, Development Skills in Strategic Transformation, *European Journal of Innovative Management* 3: 1:2000, pp 45-52.

Torrington, Hall and Guest (1987), Strategic Role for Human Resource Management-1987.

SOCIO ECONOMIC DETERMINANTS OF RURAL-URBAN MIGRATION IN PUNJAB

Dr. Rukhsana Kalim[1] and Samina Tahira[2]

ABSTRACT

The study begins by analyzing and comparing the incidence and patterns of rural-urban migration in Punjab within the human capital model framework. Two sets of data on rural-urban migration provided by the Population Census 1998 and Labour Force Survey 1996-1997 have been utilized for this purpose. A migration equation is specified based on the expected socio-economic determinants of rural-urban migration and data availability. By applying Probit model, regression analysis is used to identify and quantify the determinants of migration in Punjab. This study explicitly takes into account two new variables (earlier ignored) viz; occupation and employment status affecting migration decision. Our results show that migration takes place mainly due to non-economic motives. Similarly, male migration is dominated in the rural-urban flow while the share of female migration is higher than male in the other internal migration flow (including rural-rural, urban-urban and urban-rural). Regression results indicate that a number of variables like education; age; family type, technical/vocational training, marital status, urbanization and sex play a significant role in determining rural-urban migration. Occupation and employment status also appear to be highly significant in our regression analysis.

1. INTRODUCTION

Migration is recognized as one of the most important areas of contemporary research on population. Among the variety of economic demographic ramifications of relevance to policy making, migration is the most rapid of, demographic responses to socio-economic change. Migration takes place when an individual decides that it is preferable to move rather than to stay and where the difficulties of moving seem to be less than the expected rewards.

People migrate from rural to urban as well as from one country to another in search of better economic opportunities. Migration plays a pivotal role in the re-allocation of human resources under changing demand and supply conditions it is a well-established fact that productive resources move in those directions where opportunities are available for their gainful employment (Ali, 1977).

According to the United Nations (UN) estimates the world's urban population reached 2.3 billion by 1990, with 61 percent living in metropolitan areas of developing counties. The high rate of growth of urban population may be the result of an increased rate of natural growth, immigration and rural-urban migration. Pakistan's experience of urbanization is not an exceptional. Its urbanization process is amongst the highest in Asia (Marwat, 1998).

[1] Dr. Rukhsana Kalim is Associate Professor, The University of Lahore.
[2] Samina Tahira is a student of Fatima Jinnah Women University, Rawalpindi.

The consequences of rapid urbanization are multi faceted and require timely policies/measures by development planners and policy makers to deal with pressures created on the infrastructure of large urban centers by the influx of migrants. Without analyzing the patterns and determining factors of rural-urban migration, such measures cannot be implemented effectively in an economy.

Earlier a number of studies on internal migration have been conducted in Pakistan mainly to analyze and find out the pattern and determinants of rural-urban migration. For instance, Irfan etal (1983) measured and analyzed the internal and international migration flows in detail in Pakistan. They conclude that internal migration is increasingly becoming a long distance and rural to urban phenomenon. International migration has induced a measure of internal migration, with migrants of rural origin returning to urban areas of Pakistan.

Irfan 1986 based on the Population Labour Force Migration Survey (1979) made an effort to determine the factors affecting rural-urban migration. He found a higher propensity to migrate among females signifying migration for marriage, and inverted shaped age-mobility curve for migrants with a peak occurring at the 15-24 years age group and a positive relationship between education and migration.

Barkely (1991) while determining inter district labour migration in Pakistan finds a significant positive association between district in migration rates and urbanization, higher levels of education, developed infrastructure and the percentage of previous migrants in a district's population during the period of 1971-1980.

Parveen (1993) has investigated inter-provincial migration in Pakistan for the time period 1971-1981 based on the data from 1972 and 1981 censuses of Pakistan. Her findings suggest that inter-provincial migration is age selective and it mostly occurs to areas where there are more job opportunities.

Ahmed and Sirageldin (1993) by using population and labour Force Survey (LFS) data estimated the migration decision rule by applying the maximum likelihood probit technique. Their findings show that variables like education, land, house ownership and the presence of school going children play an important role in determining migration.

Arif and Ibrahim (1998) have studied the trends and patterns of urbanization in Pakistan. Their main findings are that the tempo of urbanization declined substantially during 1981-98 mainly due to the deteriorating law and order situation, illegal immigration, a slow down of rural to urban migration.

Khan and Shahnaz (2001) have studied the determinants of internal migration in Pakistan by using data from the LFS 1996-97. They find that age and marital status are negatively significant while education, technical/vocational training and urbanization are positively significant determinants of migration.

By summarizing, the available literature gives information on determinants of internal migration in Pakistan by using probit and logit models. No one has focused attention on Punjab which constitutes more than half (56.1%) of the total population of Pakistan. Punjab is the province where migration rate is the highest

as compared to other provinces (see for details Ahmed and Sirageldin, 1993). Increasing urban unemployment, overcrowding, criminal activity and pressures on social services are the consequence of heavy influx of rural urban migration in Punjab.

The basic objectives of the study are twofold: (1) to analyze in depth the pattern of rural-urban migration in Punjab. For this purpose, two sets of data, i.e., the Population Census of Punjab (1998) and Labour Force Survey (LFS) (1996-97) is compared (2) to identify the main factors that initiate and enhance the process of rural urban migration in Punjab.

A number of variables in the context of literature determining rural-urban migration have been tested through probit model. Two new variables i.e. occupation and employment status determining rural-urban migration are also added in the model.

Although Ahmed and Sirageldin (1993) have used these variables in the migration decision rule in Pakistan yet their analysis covers the year 1979.

As is customary, the paper is structured into five sections. The second section is devoted to describe methodology and data collection. A detailed sketch of the probit model and variables used in the model is made in the same section. The third section discusses incidence and patterns of migration in Punjab by comparing two sets of data. The fourth section discusses the estimated results followed by the final fifth section that concludes the major findings of the study. Some policy implications are also given in this section.

2. METHODOLOGY, DATA SOURCES AND VARIABLES

For migration, the availability of data from Population Census is quite limited. Many countries do not collect any data on migration in their Censuses, other have data on place of birth and place of current residence but not on migration. Pakistan in the latest Population Census 1998 has collected some data on migration i.e. place of birth, place of previous residence, duration of residence, age, educational level and reasons for migration. So, keeping in view the objective of the study, data is collected from two sources for satisfactory information on rural-urban migration: The 1998 Population Census and Labour Force Survey (1996-1997).

The research is carried out at two levels. First, a detailed statistical analysis of the distribution of the migrant population is done to get a profile of migrants and the pattern of migratory flows between the rural and urban areas of residence. Then a comparison is made between the Population Census (1989) and Labour Force Survey (1996-1997) data. Second, the decision to migrate is modeled in the framework of the human capital investment (see Sjaastand 1962) by using the Maximum Likelihood Probit estimation technique.

2.1 The Analytical Model

The Process of migration can be approached in different ways, such as through socio-economic characteristics, spatial factors, or through cost-benefit analysis. Following Sjaasted (1962) and Ahmad and Sirageldin (1993), migration

in the present study is treated as an investment in human capital. This means that the potential migrant calculates the stream of benefits that would result from move and compares them with the costs of migration.

The move will take place only if

$$(Ym_i - Yn_i) \geq C_i$$

Where

Ym_i = Income earned at the destination.

Yn_i = Income earned at the place of origin.

C_i = Cost of moving.

2.2 Normal Probability Probit Model

The inadequacy of linear probability model suggests that non-linear specification may be more appropriate. In order to explain the dichotomous dependent variable, we will use the probit model that emerges from the normal cumulative distribution function. As compared to linear model the basic advantage of probit model is that the probability of occurrence increases with X but never steps outside the 0-1 interval and relationship between X and Y is non-linear. So, due to non-linear relationship between dependent and independent variables the Maximum Likelihood estimation technique instead of OLS (Ordinary Least Square) is used.

According to migration selection criteria

Prob (Migrate) = Prob $(I_i^* > 0)$

Prob (Stay) = Prob $(I_i^* \leq 0)$

Where

I_i^* = Unobservable index

$$I_i^* = Xi\theta + \varepsilon_i$$

Where

Xi = Personal characteristics of the ith individual and original location before migration.

ε_i = Random disturbances.

We can drive the probability function as

$$\Pr ob(I_i^* = 1) = \Pr ob(\varepsilon_i > -X_i\theta)$$

$$= 1 - F(-X_i\theta)$$

Where

F (.) is the cumulative distribution function of εi.

The Likelihood function in this case will be:

$$L = \prod_{I_i=0} F(-X_i\,\theta) \prod_{I_i=1}\left[1 - f(-X_i\theta)\right]$$

Since the Probit Model assumes $\varepsilon_i \sim N(0,\sigma2)$, therefore the cumulative function takes the following form:

$$F(-X_i\theta) = \int^{-xi\theta/\sigma} 1/(2\pi)^{1/2}\exp(-t^2/2)\,dt \ldots\ldots\ldots\ldots 1$$

2.3. Operational Model

The general model specified above can be used as a guiding paradigm. Based on the theoretical rational, the operational model contains variables that are supported by the data. Different socio-economic variables are examined below. The justification for their inclusion in the migration decision rule and the expected signs, which they could carry, are also discussed.

Age

One of the important factors that induce any person to migrate is age indicating the likely number of working years. Young workers have greater flexibility to move and adjust their earnings over time. It is therefore, expected that the relationship between age and migration decision will be negative.

Age Squared

In order to test for the non-linearity of the age-migration profile, the square of age will be used.

Education

Education is also an important determinant in enhancing migration. A positive relationship between education and migration is expected.

Technical / Vocational Training

This variable also measures cognitive skill and efficiency and it contributes a lot in the migration decision. The expected sign between technical/vocational training and migration is positive.

Marital Status

This variable is classified as married, unmarried and divorced. Married women have more probability to migrate. So, both positive and negative signs are expected among marital status and migration.

Sex

Sex classified as male and female has different impact on migration. Females have more probability to move rather than males. So, positive sign is expected between females and migration.

Family Type

Family type in the present model represents another possible source of the cost of migration. So, nuclear family has a weaker incentive to migrate, while extended family has more incentive to migrate.

Employment Status

Employment status in the area of origin is crucial for the possibility of moving. Those who are self-employed, either in agriculture or in business, are less likely to migrate as compared to unemployed or those who work in public agencies. We expect a negative relationship between employment status (self-employed) and migration decision.

Based on the description of variables the operational model for estimation can be formulated as under. The sign below each variable reflects the expected effect of these explanatory variables on the dependent variable.

MIG=f　[AGE,　AGESQ,　EDUC,　TEVTRAIN,　MARST,　URBAN,　HHH

　　　　(-/+)　　(-)　　(+)　　(+)　　(-/+)　　(+)　　(+)

　　　　NUCL,　MSEX,　SELFEMP,　OCCUP]

　　　　(-)　　(-)　　(-)　　(+/-)

Where the symbols are defined as below:

MIG = Dichotomous variable equal to unity for a migrant and zero otherwise.

AGE = Age in complete years.

AGESQ = Age squared.

EDUC = Education, it means years of schooling.

TEVTRAIN = Dummy variable equal to unity if completed any technical / vocational training and zero otherwise.

MARST = Dummy variable equal to unity if married and zero otherwise.

URBAN = Dummy variable equal to unity if currently residing in urban area and zero otherwise.

HHH = Dummy variable taking a value of unity of head of house hold and zero otherwise.

NUCL = Dummy variable taking a value of unity if the migrant belongs to nuclear family and zero otherwise.

MSEX = Dummy variable equal to unity for a male and zero otherwise.

SELFEMP = Dummy variable equal to unity if migrant is self employed (comprising own account worker (non-agricultural), own account worker (agricultural) and owner cultivator and zero otherwise.

Occup   = Dummy variable taking a value of unity of the migrant belongs to one of the occupational categories and zero otherwise.

For all the above analysis SPSS (Special Package for Social Sciences) is used.

3. INCIDENCE AND PATTERNS OF MIGRATION IN PUNJAB

According to Population Census, migration refers to physical movement of people along with their change of residence from one place to another administrative district. So, migrants are lifetime migrants who moved from one district to another.

The Labour Force Survey (LFS) is an annual sample inquiry of the Federal Bureau of Statistics. The LFS (1996-97) is based on a sample of 20,198 households. It defines migrants as those who have moved from one administrative district to another administrative district. Like the Census it excludes the population who has moved within a district. The LFS 1996-97 comprises all persons above the years of age while the Census includes the persons below and above ten years. In this section, incidence and patterns of migration in Punjab are discussed in detail.

Table-1 indicates that among the total population of Pakistan, Punjab comprises more than half population (57.3 percent) of Pakistan. And from the total population of Punjab 68.7 percent are currently residing in rural areas while only 31.3 percent are living in cities/towns. Sindh is the most urbanized province where 48.9 percent of the total population lives in cities/town. A look at the distribution of Pakistan population reveals that from the total population of Pakistan only 33 percent are currently residing in urban areas while 67 percent are living in rural areas (Table-1).

Table 1
Distribution of Pakistan Population by Province and Rural/Urban

	Urban	Rural	Total
Punjab	(31.3%)	(68.7%)	(100)
Sindh	(48.9%)	(51.1%)	(100)
N.W.F.P.	(16.9%)	(83.1%)	(100)
Balochistan	(23.3%)	(76.7%)	(100)
Total [Population]	(33%) [418,507,08]	(67%) [847,919,15][	(100) [126,642,623]

Source: The 1998 Population Census of Punjab

Table 2
Incidence of Migration in Punjab by Region of Residence

	Non-migrant	Migrant	Total
Urban	84.8%	15.2%	100
Rural	93.6%	6.4%	100
Total	90.8%	9.2%	100
[Population]	(669,200,34)	(670,12,56)	(736,212,90)

Source: The Population Census 1998 of Punjab.

Table 3
Incidence of Migration in Punjab by Region of Residence

	Non-migrant	Migrant	Total
Urban	86%	14%	100
Rural	78.3%	21.7%	100
Total	82.2%	17.8%	100
(Population)	(316822)	(6896)	(38718)

Source: Labour Force Survey (1996-97)

The 1998 Population Census classifies 9.2 percent of the total population of Punjab as migrants. In urban areas 15.2 percent are migrants while in the rural areas 6.4 percent are migrants (Table-2).

The 1996-97 LFS provides the relevant information for adult population aged ten years and above. Data on incidence of migration are presented in table-3, which shows that 17.8 percent of the Punjab adult population is migrant. From the total population living in urban areas 14 percent are migrants. The corresponding percentage for rural areas is 21.7 percent. The difference in incidence of migration between the Census and LFS data sets can largely be attributed to exclusion of younger population, less then ten years old, in the LFS.

Distribution of migrant population by sex and rural/urban area is shown in table- 4 which reveals that from total migrants the proportion of female migrants is more (52.8 percent) than male migrants (47.2 percent) primarily due to female migration for marriage. In urban areas, share of male migrants is more (50.9 percent) than female migrants (49.1 percent) probably due to the work opportunities for male workers in urban areas.

Table 4
Distribution of Migrant Population by Sex and Region in Punjab

	Male	Female	Total
Urban	178,27,73 [50.9%] [56.3%]	171,58,59 [49.1%] [48.5%]	349,86,32 [100] (52.2%)
Rural	138,15,38 [43.1%] (43.7%)	182,10,86 [56.9] (51.5%)	320,26,24 [100] (47.8%)
Total	316,43,11 [47.2%] (100)	353,69,45 [52.8%] (100)	670,12,56 [100] (100)

Source: The Population Census 1998 of Punjab.

Note: Values in brackets are row wise percentage.

Values in parentheses are column wise percentages.

According to Labour Force Survey, in table-5 the share of female migrants in the total migration is 55.6 percent while male migrants are only 44.4 percent. In urban areas, the proportion of female migrants is more (54 percent) than male migrants (45.1 percent). This statement is different from the population census because Labour Force Survey excludes children below ten years of age. Both the sources show that females have more propensities to migrate. So, sex is the major and universal determinant of migration and there is a positive relationship between sex (female) and migration.

A look at the previous place of residence of migrants in Punjab reveals that majority of migrants (45.7 percent) males and (52.4 percent) females have moved from the same province. However, a large share of migrants (28.5 percent) males and (26.4 percent) females have also come from other countries mainly India. There are 13.3 percent male migrants and 12.7 percent female migrants whose places of previous residence are not reported.

Table 5
Distribution of Migrant Population by Sex and Region in Punjab

	Male	Female	Total
Urban	1237 [45.1%] (40.4%)	1503 [54.9%] (39.2%)	2740 [100] (39.7%)
Rural	1822 [43.8%] (59.6%)	2334 [56.2%] (60.8%)	4156 [100] (60.3%)
Total	3059 [44.4%] (100)	3837 [55.6%] (100)	6896 [100] (100)

Source: Labour Force Survey (1996-97)

Note: Values in brackets are row wise percentages.

Values in parentheses are column wise percentages.

Table 6
Distribution of Total Migrants in Punjab by Place of Previous Residence and Sex

	Male	Female	Total
N.W.F.P	6.3%	3.9%	5.1%
Punjab	45.7%	52.4%	49.3%
Sindh	2.5%	2.3%	2.4%
Balochistan	0.48%	0.42%	0.45%
Islamabad	0.21%	0.22%	0.21%
A.J.& Kashmir	2.86%	1.5%	2.2%
Northern Areas	0.08%	0.07%	0.08%
Other countries	28.5%	26.4%	27.3%
Not reported	13.3%	12.7%	13%
Total (Population)	100 (316,43,11)	100 (353,6945)	100 (670,12,56)

Source: The Population Census 1998 of Punjab.

Since the year of migration varies for different migrants, the gain from migration can be assessed by considering the time that has passed since migration. According to the population census 66.2 percent migrants have moved ten and above years ago while Labour Force Survey reveals that 72.2 percent migrants have moved ten and above years ago. It is expected that other things being equal, these migrants have earned more as compared to those who have migrated less than ten years ago. The figure is higher for Labour Force Survey because it also takes those who are not lifetime migrants. Years since migration is also used as an indirect way to calculate age of migrants and in very fine the earn as-you-go proposition.

3.1 Pattern of Migration

To examine the pattern of migration (or the direction of movement), the migration flows have been classified into two broad categories: rural to urban migration and other internal migration which includes rural-rural, urban-rural and urban-urban migration. Results are presented in table-7 and graph-1 which shows that from male migrants (34.2 percent) have moved to rural-urban direction while 65.8 percent have gone to other internal migration. While from female migrants 30.5 percent have moved to rural-urban direction and 69.5 percent moved to other internal migration. The proportion of males in the rural-urban migration flow is higher (34.2 percent) than females (30.5 percent) due to the work in urban areas. While share of females in the other-internal migration flow is higher (69.5 percent) than males (65.8 percent) due to the non-economic reasons for migration.

Graph 1: Relationship between sex and direction of migration
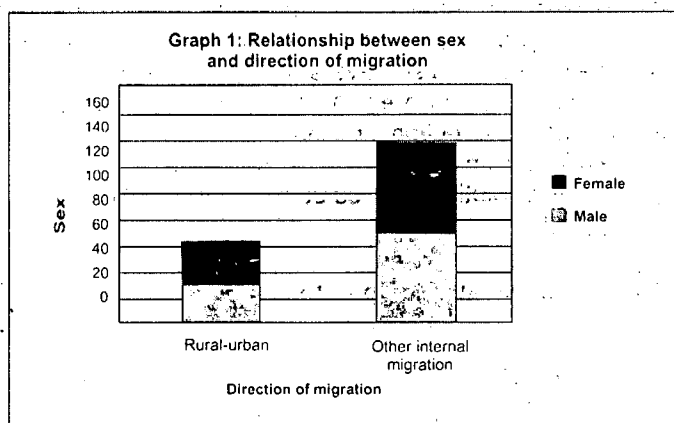
Table 7
Distribution of Migrants by Sex and Direction of Migration (Punjab)

|	Rural-Urban	Other internal Migration	Total
Male	1045 (34.2%)	2014 (65.8%)	3059 (100)
Female	1170 (30.5%)	2667 (69.5%)	3837 (100)
Total	2215 (32.1%)	4681 (67.9%)	6896 (100)

Source: Labour Force Survey (1996-97).

3.2 Differentials in Migration Patterns

Age

According to the Population Census, majority of both male and female migrants belong to the age groups 15-24 years (15.2 percent) and 25-34 years (19 percent) because young people have greater flexibility to move. While in these two age groups non-migrants are 19.6 percent and 13 percent respectively. Migration in the age 35 and above years started declining gradually because old people have less incentive to migrate and increases again at the age of retirement (table-8, graph-2).

According to Labour Force Survey in table-9 male migrants in the age group 35-44 years are the highest in rural-urban direction due to job opportunities in urban area. Among the total male migrants 34.2 percent are migrating from rural to urban areas and 65.8 percent are moving to other internal migration including: rural-rural, urban-rural and urban-urban migration.

Table-10 reveals that female migrants in the rural-urban are the highest in the age group 10-14 years due to movement with parents. And in the age group 75 and above years females also have a more trend of migration because in the old age parents move with children. Among total female migrants 30.5 percent move in the rural-urban direction and 69.5 percent move in the other internal migration. It is evident from both the sources that age is a prime determinant of migration and negative relationship lies between age and migration.

Graph 2: Relationship between age and migration
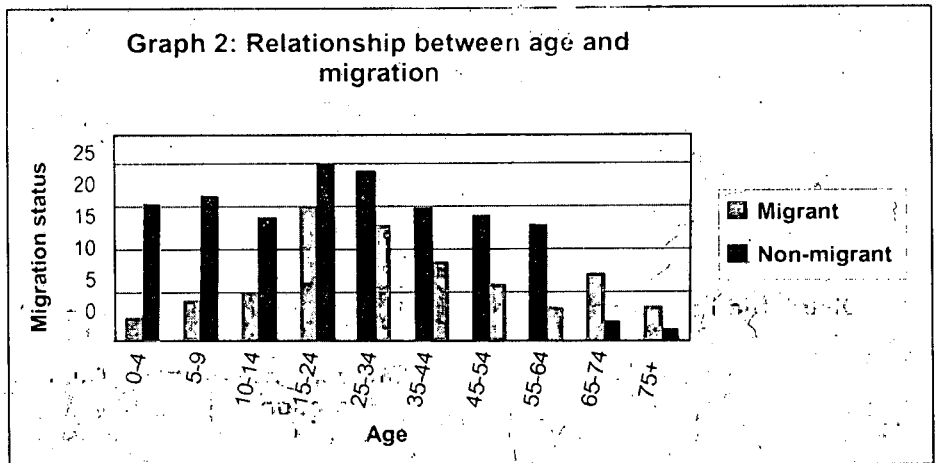
Table 8
Distribution of Population by Age Group and Migration Status with Sex
(Punjab)

	Migrant			Non-migrant		
	Male	Female	Both Sexes	Male	Female	Both Sexes
00-04 Years	(2.83%)	(2.3%)	(2.5%)	(15%)	(15.8%)	(15.4%)
05-09 Years	(4.8%)	(4.1%)	(4.5%)	(16.2%)	(16.4%)	(16.3%)
10-14 Years	(6.0%)	(4.7%)	(5.3%)	(13.9%)	(13.7%)	(13.8%)
15-24 Years	(14.8%)	(15.6%)	(15.2%)	(19.2%)	(20.0%)	(19.6%)
25-34 Years	(6.4%)	(21.4%)	(19%)	(13.2%)	(12.8%)	(13.0%)
35-44 Years	(13.3%)	(16.4%)	(15.0%)	(9.0%)	(8.5%)	(8.7%)
45-54 Years	(13.9%)	(14.3%)	(14.1%)	(6.3%)	(6.1%)	(6.2%)
55-64 Years	(14.6%)	(11.7%)	(13.0%)	(3.8%)	(3.5%)	(3.6%)
65-74 Years.	(8.8%)	(6.4%)	(7.5%)	(2.2%)	(2.0%)	(2.1%)
75 and above years	(4.6%)	(3.1%)	(3.8%)	(1.2%)	(1.2%)	(1.2%)
Total	316,43,11 (100)	353,69,45 (100)	670,12,56 (100)	349,300,56 (100)	319,899,78 (100)	669,200,34 (100)

Source: The Population Census 1998 of Punjab.

Note: Values in parentheses are column wise percentages.

Table 9
Distribution of Male Migrants by Age Group and Direction of Migration
(Punjab)

	Rural-Urban	Other internal migration	Total
10-14 Years	60 [30.2%]	139 [69.8%]	199 [100]
15-24 Years	140 [33.6%]	277 [66.4%]	417 [100]
25-34 Years	148 [39.1%]	231 [60.9%]	379 [100]
35-44 Years	201 [41.2%]	287 [58.8%]	488 [100]
45-54 Years	164 [32.1%]	347 [67.9%]	511 [100]
55-64 Years	166 [30.9%]	371 [69.1%]	537 [100]
65-74 Years	101 [30.9%]	226 [67.7%]	327 [100]
75 and above years	65 [32.3%]	136 [67.7%]	201 [100]
Total	1045 [34.2%]	2014 [65.8%]	3059 [100]

Source: Labour Force Survey (1996-97)

Table 10
Distribution of Female Migrants by Age Group and Direction of Migration
(Punjab)

	Rural-Urban	Other internal migration	Total
10-14 Years	62 [37.8%]	102 [62.2%]	164 [100]
15-24 Years	163 [28.8%]	402[71.2%]	565 [100]
25-34 Years	240 [27.8%]	622 [72.2%]	862 [100]
35-44 Years	264 [33.4%]	526 [66.6%]	790 [100]
45-54 Years	155 [27%]	419 [73]%	574 [100]
55-64 Years	161 [31%]	358 [69%]	519 [100]
65-74 Years	76 [32.8%]	156 [67.2%]	232 [100]
75 and above years	49 [37.4%]	82 [62.6%]	131 [100]
Total	1170 [30.5%]	2667 [69.5%]	3837[100]

Source: Labour Force Survey (1996-97)

3.3 Reasons for Migration

An interesting picture emerges when the distribution of male and female migrants is analyzed according to main reasons for migration. The reason for migration and consequently the migrants can be grouped into two categories namely: economic and non-economic migrants in relation to the primary motive for migration. If the migrants identified job transfer, finding a job, business or education as the main reason for migration, then such migration is based on reasons, which can be classified as economic reasons. Migration for economic motives is viewed as an investment in human capital, which entails both direct and indirect costs as well as the expectations of increased earnings in the destination.

Migration undertaken for reasons of health, marriage, accompanying parents or return to the origin can be classified as migration for non-economic reasons under the pretext that the decision is not based upon a comparison of costs and returns but on other criteria which may not be primarily economic.

According to Population Census, as indicated in table-11 and graph-3, males' movement is higher due to both job transfer (18.4 percent) and business (16.9 percent). For females migration is higher due to marriage (41.6 percent) and movement with parents (41.2 percent). Male migration due to move with head is the highest, though female migration is even higher than male migration with head. Migration for business and job transfer is being dominated by males than females.

According to Labour Force Survey, as shown in table 12, male migration is also higher due to finding a job (15.8 percent) and job transfer (13.7 percent) while for females migration due to marriage is the highest (52.7 percent).

Table 11
Distribution of Migrants by Sex and Main Reasons for Migration (Punjab)

	Male	Female	Total
Study	(1.6%)	(.53%)	(1.1%)
Business	(16.9%)	(1.37%)	(8.7%)
Job transfer	(18.4%)	(.72%)	(9.1%)
Health	(0.09%)	(0.05%)	(0.07%)
Marriage	(1.5%)	(41.6%)	(22.6%)
Moved with head	(34.4%)	(41.2%)	(38%)
Returning home	(1.6%)	(7.9%)	(1.2%)
Other	(25.4%)	(13.8%)	(19.3%)
Total	316,43,11 (100)	353,69,45 (100)	670,12,56 (100)

Source: The Population Census 1998 of Punjab.

Table 12
Distribution of Migrants by Sex and Main Reasons for Migration (Punjab)

	Male	Female	Total
Study	40 (1.3%)	27 (0.7%)	67 (1.0%)
Business	242 (7.9%)	30 (0.8%)	272 (3.9%)
Job transfer	420 (13.7%)	83 (2.2%)	503 (7.3%)
Finding a job	482 (15.8%)	68 (1.8%)	550 (8%)
Health	5 (0.2%)	8 (0.2%)	13 (0.2%)
Marriage	68 (2.2%)	2023 (52.7%)	2091 (30.3%)
With parents	784 (25.6%)	536 (14%)	1320 (19.1%)
Returning home	166 (5.4%)	74 (1.9%)	240 (3.5%)
Other	852 (27.9%)	988 (25.7%)	1840 (26.7%)
Total	3059 (100)	3837 (100)	6896 (100)

Source: Labour Force Survey (1996-97)

Graph 3: Migrants by sex and main reasons for migration
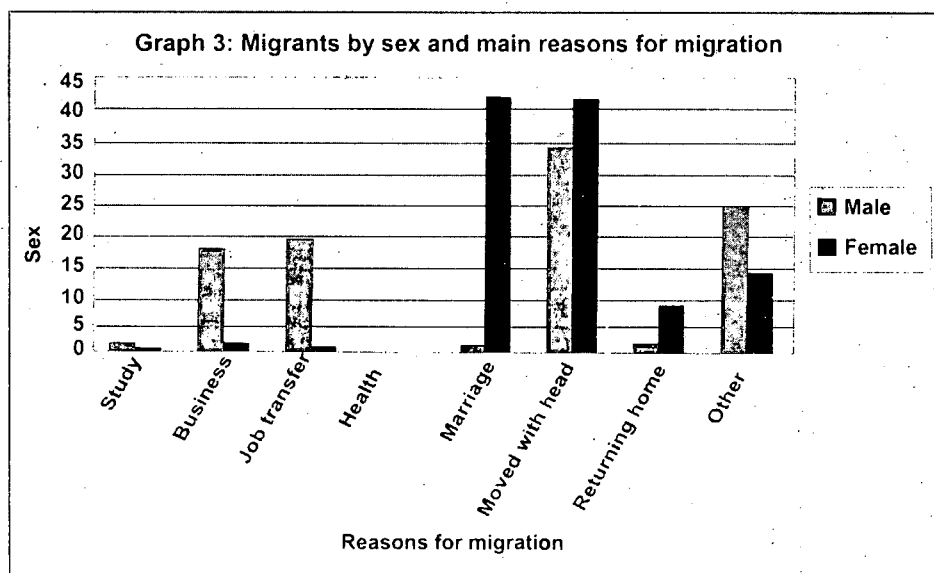
An analysis of the migrant distribution by economic and non-economic reasons shows in table-13 that majority of the males (63.1 percent) and females (97.4 percent) have cited non-economic reasons as the main reason for migration. It is also clear from graph-4 that migration for economic reasons is higher among males than females while migration for non-economic reasons is higher among females than males.

According to Labour Force Survey in table-14 for non-economic reasons of migration, 61.3 percent male migrated while 94.6 percent females cited the non-economic reason for migration. Total male and female migration for economic reason is 20.2 percent while for non-economic reason is 79.8 percent.

Table 13
Distribution of Migrants by Sex and Economic and Non-Economic Reasons (Punjab)

	Male	Female	Total
Male	(36.9%)	(63.1%)	(100)
Female	(2.56%)	(97.4%)	(100)
Total	126, 18, 16 (18.8%)	543, 94, 40 (81.2%)	670,12,56 (100)

Source: The Population Census 1998 of Punjab.

Graph 4: Migrants by sex and economic & non-economic reasons
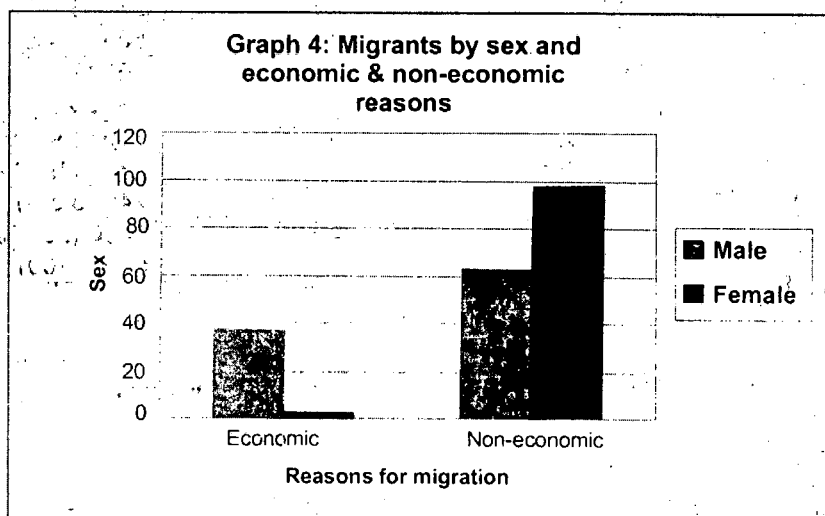
Table 14
Distribution of Migrants by Sex and Economic & Non-Economic Reasons (Punjab)

	Economic	Non-economic	Total
Male	(38.7%)	(61.3%)	(100)
Female	(5.4%)	(94.6%)	(100)
Total	1392 (20.2%)	5504 (79.8%)	6896 (100)

Source: Labour Force Survey (1996-97)

It will be better if we have data on direction of migration from the population census for the analysis of migrant destination. In table-15 and graph-5 rural-urban flow of migration is dominated by migration with economic reason (43.7 percent) while the proportion of non-economic reason in the rural-urban migration is (70.8 percent) while the proportion of economic reason in this migration flow is (56.3 percent).

Table 15
Distribution of migrants by Economic/Non-Economic Reasons and Direction of Migration (Punjab)

	Economic	Non-economic	Total
Economic	609 [43.7%]	783 [56.3%]	1392 [100]
Non-economic	1606 [29.2%]	3898 [70.8%]	5504 [100]
Total	2215 [32.1%]	4681 [67.9%]	67896 [100]

Source: Labour Force Survey (1996-97).

Graph 5: Relationship between reason for migration and direction of migration
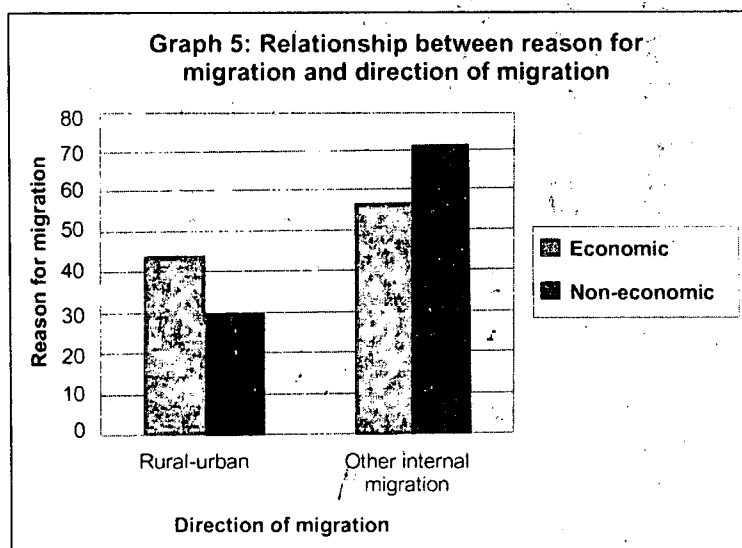
EDUCATION

According to Population Census, among total male migrants 11.2 percent are illiterate while female illiterate migrants are 13.4 percent. There is a positive relationship between migration and education. Total male and female migrants are the highest with education category under other (50.3 percent) followed by degree and above (20.3 percent) while non-migrants for both sexes are the highest among the people who are illiterate (table-16 and graph-6).

According to Labour Force Survey, an educational profile of the migrants by the direction of migration points out that the majority of the female migrants who moved in the rural-urban direction have completed either 6-10 years of schooling (27.5 percent) or have not completed any formal education (37.9 percent).

The picture for female migrants is that the majority of females (63.6 percent) in the rural-urban direction have not completed any formal education. In the other internal migration (including: rural-urban, urban-rural and urban-urban migration) flow, both male and female migrants (52.9 percent) have not completed any formal education. A look at the analysis of the destination of migrants in table-20 reveals that 31.5 percent males and females without completing any formal education migrate from rural to urban area. Among the migrants who have completed 1-5 years of schooling, female migrants are more (33.6 percent) than males (29.7 percent) in the rural-urban direction. While in the other internal migration, male migrants are more (70.3 percent) than female migrants (66.4 percent).

Graph: 6 Relationship between educational level and migration
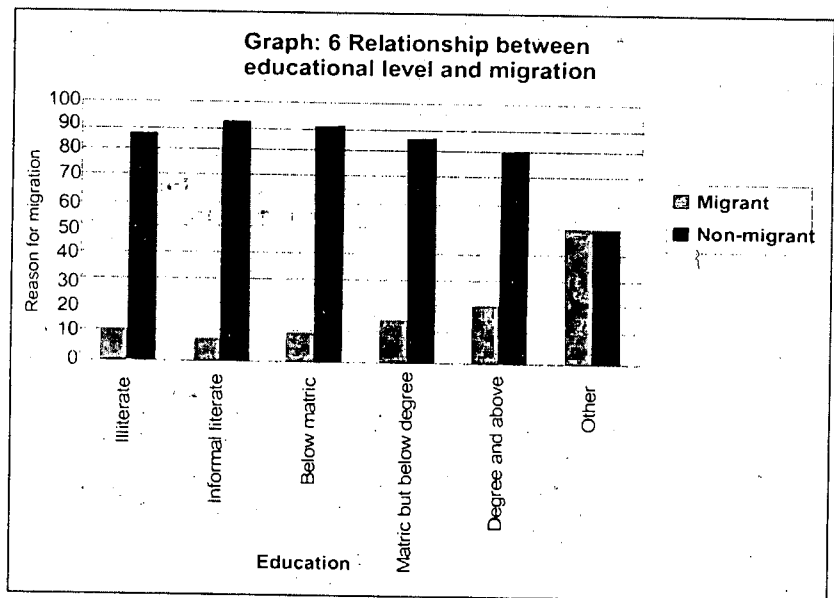
Table 16
Distribution of Population (10 years and above) by Education Level and Sex (Punjab)

	Male		Female		Both Sexes	
	Migrant	Non-Migrant	Migrant	Non-Migrant	Migrant	Non-Migrant
Illiterate	11.2%	88.8%	13.4%	86.6%	12.5%	87.5%
Informal literate	7.9%	92.1%	9.2%	90.8%	8.6%	91.4%
Below matric	8.7%	91.3%	12%	88%	9.9%	90.1%
Matric but below degree	14.7%	85.3%	16.2%	83.8%	15.2%	84.8%
Degree and above	20.2%	79.8%	20.3%	79.7%	20.3%	79.7%
Other	71.4%	28.6%	33.3%	66.7%	50.3%	49.7%

Source: Population Census 1998 of Punjab.

Table 17
Distribution of Male and Female Migrants by Educational Level (Punjab)

	Rural-Urban			Other Internal Migration		
	Male	Female	Both Sexes	Male	Female	Both Sexes
No formal education	396 (37.9%)	744 (63.6%)	1140 (51.5%)	841 (41.7%)	1635 (61.3%)	2476 (52.9%)
1-5 years of schooling	44 (4.2%)	39 (3.3%)	83 (3.7%)	104 (5.1%)	77 (2.9%)	181(3.9%)
6-10 years of schooling	287 (27.5%)	233 (19.9%)	520 (23.5%)	459 (22.8%)	471 (17.6%)	930 (16%)
11-14 years of schooling	229 (21.9%)	125 (10.6%)	354 (16%)	400 (19.8%)	350 (13.1%)	750 (16%)
15 and above years of schooling	89 (8.5%)	29 (2.5%)	118 (5.3%)	210 (10.4%)	134 (13.1%)	344(16%)
Total	1045 (100)	1170 (100)	2215 (100)	2014 (100)	2667 (100)	4681(100)

Source: Labour Force Survey (1996-97)

Table 18
Distribution of Male and Female Migrants by Direction of Migration and Educational Level

|		Rural – Urban	Other internal Migration	Total
No formal education	Male	(32.0%)	(68.0%)	(100)
	Female	(31.3%)	(68.7%)	(100)
	Both sexes	(31.5%)	(68.5%)	(100)
1-5 years of schooling	Male	(29.7%)	(70.3%)	(100)
	Female	(33.6%)	(66.4%)	(100)
	Both sexes	(31.4%)	(68.6%)	(100)
6-10 years of schooling	Male	(38.5%)	(61.5%)	(100)
	Female	(33.1%)	(66.9%)	(100)
	Both sexes	(35.9%)	(64.1%)	(100)
11-14 years of schooling	Male	(36.4%)	(63.6%)	(100)
	Female	(26.3%)	(73.7%)	(100)
	Both sexes	(32.0%)	(68.0%)	(100)
15 and above years of schooling	Male	(29.8%)	(70.2%)	(100)
	Female	(17.8%)	(82.2%)	(100)
	Both sexes	(25.5%)	(74.5%)	(100)

Source: Labour Force Survey (1996-97)

Employment Status

    A look at the analysis of migrants (age 10 and above years) by employment status reveals that in the rural-urban migration, majority of both male and female migrants (41.1 percent) are regular paid employee. And the people who are paid non-family apprentice do not move in the rural-urban direction. There is a big share of migrants, 33.3 percent in the rural-urban direction who are own account worker (non-agricultural). While in the other internal migration also majority of both male and female migrants, 25.8 percent are own account worker (non-agricultural). Hence, employment status is a prime determinant of migration and negative relationship lies between migration and employment status (self-employed).

Table 19
Distribution of Male and Female Migrants by Employment Status and Direction of Migration

	Rural-Urban			Other Internal Migration		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Regular paid employee	41.3%	39.6%	41.1%	27.3%	19.2%	25.7%
Casual paid employee	6.5%	5.8%	6.4%	4.7%	3.3%	4.4%
Paid worker	8.8%	15.1%	9.5%	6.35%	13.7%	7.84%
Paid non-family apprentice	0%	0%	0%	0.28%	0%	0.22%
Employer	1.45%	2.3%	1.5%	2.44%	.55%	2.06%
Own account worker (non-agri)	35.7%	12.8%	33.3%	29.4%	11.8%	25.8%
Own account work (agri)	1.85%	0%	1.7%	17.2	4.38%	14.6%
Owner cultivator	0.13%	0%	0.12%	2.8%	0.27%	2.3%
Share cropper	0.26%	0%	0.23%	1.04%	0%	0.83%
Contract cultivator	3.9%	24.4%	5.9%	8.1%	46.8%	16%
Unpaid family worker	0.13%	0%	0.12%	0.21%	0%	0.2%
Total	100 (755)	100 (86)	100 (841)	100 (433)	100 (365)	100 (1798)

Source: Labour Force Survey (1996-87).

Graph: 7 Indicating relationship between employment status and migration
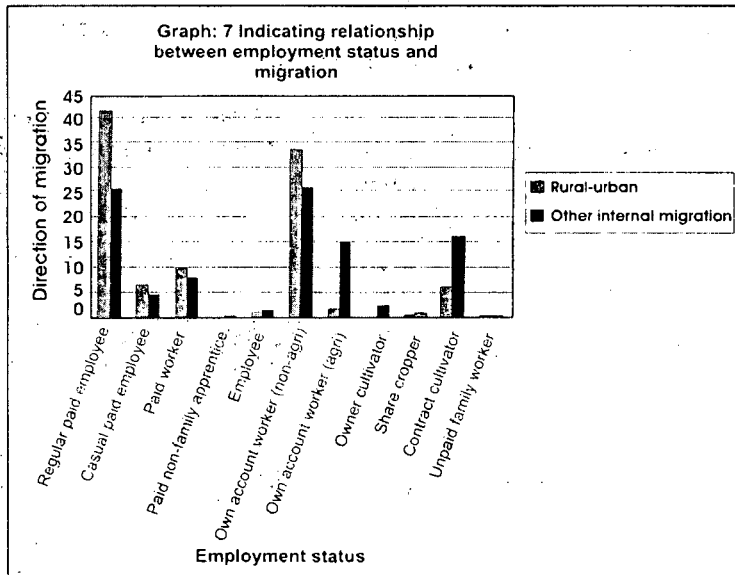
OCCUPATION

A look at the analysis of migrants (age 10 and above) by occupation reveals that among total male migrants (27.2 percent) belong to elementary occupations, while majority of female migrants (32.6 percent) are skilled. The skilled female migrants 32.6 percent are more than skilled male migrants (18.2 percent). A look at the analysis of gender in occupation shows that female professional, technician, skilled and trade worker migrants are more than male migrants belonging to these occupations.

Table 20
Distribution of Migrants by Sex and Occupation

	Male	Female	Both Sexes
Legislators and managers	12.1%	2.2%	10.4%
Professionals	5.6%	8.9%	6.2%
Technicians	3.7	6.9%	4.3%
Clericals	6.7%	.4%	5.6%
Service and sales worker	11%	10%	10.8%
Skilled	18.2%	32.6%	20.7%
Trades workers	10%	13.7%	10.6%
Operators and assemblers	5.4%	.4%	4.6%
Elementary occupations	27.2%	24.8%	26.8%
Total	100	100	100

Source: Labour Force Survey (1996-97)

Graph 8: Indicating relationship
between occupation and migration
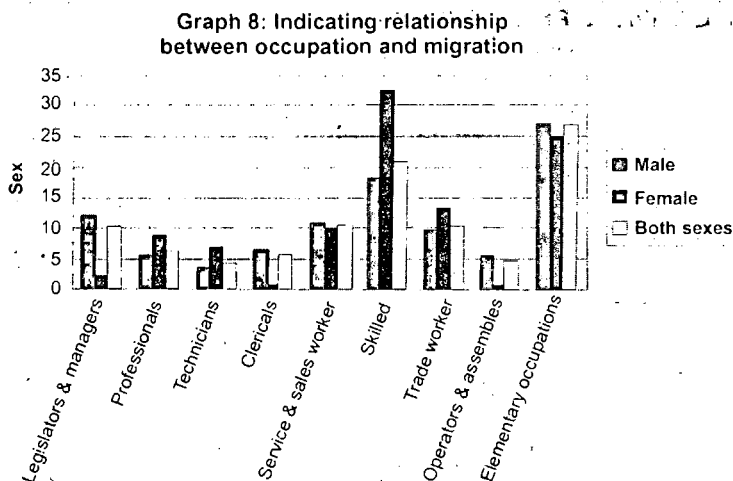
The analysis of destination of migrants (age 10 and above years) by occupation reveals that majority of male migrants (50 percent) in the rural-urban direction are clericals, while the proportion of male migrants in the other internal migration is also dominated (50 percent) by the occupation under clericals. And majority of female migrants (33.3 percent) in the rural-urban direction are sales and service workers. The proportion of female migrants in the other internal migration is the highest (95.9 percent) under skilled occupation. Both sexes migrants in the rural-urban flow are dominated (49.3 percent) by clerks, while both sexes migrants in the other internal migration are the highest (91.6 percent) under skilled occupation.

4. DETERMINATION OF MIGRATION IN PUNJAB: RESULTS OF PROBIT MODEL

In order to further analyze the determinants process, migration is modeled as a dichotomous variable representing migrant/non-migrant status in a probit model. The empirical results by applying the maximum likelihood probit technique are presented in table 21.

The coefficient of **AGE** variable reflects that the probability of migration increases with age. The age coefficient is significant at 1% level of significance. It implies that age is a crucial determinant of migration.

The **AGESQ** (Age Square) variable is also significant at 5% level of significance with a negative sign. It implies that probability of migration decreases as one grows older. The age indicating the likely number of working years with a positive coefficient and age squared with a negative coefficient and as both the coefficients are statistically significant, implies that the propensity to migrate decreases with age. These results suggest that the incentive to migrate is higher for young people. This result is also supported by Khan and Shahnaz (2001).

Table 21
Maximum Likelihood Probit Estimates for the Sample of Aged 10 and above Years with Occupation Categories

Variable	Estimated Coefficient	t-statistics
Intercept	-1.298	-42.797*
AGE	.0214	11.483*
AGESQ	-.00010	-4.757*
EDUC	.0149	4.732*
TEVTRAIN	.1178	3.685*
URBAN	.1616	11.1647*
SELFEM	-.0505	-2.107**
MSEX	-.0878	-5.099*
HHH	-.166	-6.762*
MARST	.123	5.88*
NUCL	.0154	.848
SER[3]	.194	5.022*
OPER[2]	-.4969	-8.103*
CLE[3]	.172	2.92*
TRA[4]	.379	10.913*
EI.E[5]	.195	7.658*
SKI[6]	.0472	1.766***
TEC[7]	-.824	-10.52

Source: Labour Force Survey (1996-97), Federal Bureau of Statistics, Govt. of Pakistan.

*   Significant at $\propto$ < 0.01

**   Significant at $\propto$ < 0.05

***   Significant at $\propto$ < 0.1

Chi-Square: 29564.351

Sample Size: 48207

The result for the variable of education EDUC indicates a significantly positive effect on the probability of migration. It means that holding all other variables constant, if there is one percent change in the educational level, migration will increase by 10 cents per person. Ahmed and Sirageldin (1993), and Khan and Shahnaz (2001) have also found that the migration decision is strongly influenced by education.

---

[1] Dummy variable equal to 1 if migrant is Service & Sales worker and zero otherwise.
[2] Dichotomous variable equal to 1 if migrant is Operator & Assembler and Zero otherwise.
[3] Dummy variable equal to 1 if migrant is Clerical and Zero otherwise.
[4] Dummy variable equal to 1 if migrant is Trade worker and zero otherwise.
[5] Dichotomous variable equal to 1 if migrant belongs to Elementary Occupation and zero otherwise.
[6] Dummy variable equal to 1 if migrant is skilled worker and zero otherwise.
[7] Dummy variable equal to 1 if migrant is Technician and zero otherwise.

The coefficient for the Dummy variable **TEVTRAIN** (technical/vocational training) is significant at 1% level of significance. It indicates that the probability of migration increases with the possession of technical and vocational training as compared to having no technical/vocational training. Hence, education and technical/vocational training appear the prime determinants of migration.

The coefficient of the region of residence variable **URBAN** is positive and significant in the probit equation indicating that the probability of being a migrant increases if current residence is in urban area as compared to current residence in rural area.

Employment status occupies an important place in the decision of migration representing the cost of migration. The coefficient of **SELFEMP** (self-employed) is highly significant with a negative sign. It indicates that the probability of migration is lower among the people who operate their own farm, business or industry as compared to government and private employees or employers. This result is consistent with earlier studies such as Ahmed and Sirageldin (1994).

The negative coefficient of the **MSEX** variable indicates that the probability of being a male migrant is lower than that of being a female migrant. This result is supported by Richard (2000) and Irfan (1986).

The variable **HHH** (Head of the Household) indicates that the probability of migration is lower among the head of the households as compared to members of the family.

The marital status variable **MARST** is positively significant in the probit equation. It implies that the probability of migration increases among married as compared to unmarried. This result is supported by earlier studies where female migration is mostly marriage driven. This result is also consistent with Khan and Shahnaz (2001).

In the present model, **occupation** variable is disaggregated into seven categories, which are service and sales workers, operators and assemblers, clericals, trade workers, elementary occupations, skilled and technicians. The base category is professional.

The results reveal that the people belonging to operators & assemblers and technicians are relatively less inclined towards migration as compared to professional category. While the people belonging to service and sales worker, clerical, trade worker, elementary occupation and skilled categories are relatively more inclined towards migration as compared to those who belong to professional category. This result is different from the earlier study done by Ahmed and Sirageldin (1993). As his data belong to 1979, the trend of people may have changed after a lapse of time.

5. CONCLUSIONS AND POLICY IMPLICATIONS

The purpose of the present paper was to explore the determinants of rural-urban migration in the highest migration rated province, Punjab, in light of the theory of migration, which considers migration as an investment in human capital. The incidence and pattern of migration has been analyzed by utilizing the data

from Population Census 1998 and Labour Force Survey (1996-97) data, the estimation of the migration decision was carried out by applying the maximum like likelihood probit estimation technique.

The statistical analysis from the 1998 Population Census and Labour Force Survey (1996-1997) reveals that migrants' population is mostly composed of the people who undertook migration decision for non-economic motives (i.e. health, marriage, and move with head and other). Male migration is dominated in the rural-urban flow while female migration is higher than males in the other internal migration flow (including rural-rural, urban-urban and urban-rural). Nuclear family does not significantly influence migration decision.

Education and current residence in urban area are positively significant in the probability of migration. The encouraging finding taking migration as a rational behaviour is the significantly negative effect of self-employment on migration. Respondent's age appears as one of the crucial factors in the migration model. It is found that young people have more tendencies to migrate because of greater flexibility to move and adjustment in their earnings over time. People belonging to elementary occupations, Trade workers and skilled workers are more inclined to migrate.

In the nutshell, the results of the present study indicate that, in general, migrants in Punjab are selective especially in terms of age, education occupation and employment status. Those who migrate are relatively more educated & skilled and either belongs to government and private agencies or employers. These findings are consistent with the existing evidence from Pakistan and other developing countries.

The rural-urban migration in Pakistan can yield important policy relevant insights into the migration process. From a policy perspective, it would be imprudent to draw on the generalized finding that higher levels of education increase migration propensities to argue against increasing access to education, especially at the secondary level in rural areas.

Rural-urban migration itself can act to alleviate poverty in the rural sector and policies that are aimed at restricting population migration are not in the best interests of the rural poor.

Policies that are aimed at trying to incorporate non-migrants into circuits that can provide services to migrant households, through training in appropriate services may be more effective in alleviating rural poverty, as would be programmes to support the activities of the returned migrants.

There should be attempts to promote informal activities in both the urban and rural sectors; they are likely to be far more effective for both sectors' inhabitants than any attempt to restrict migration or to limit the informal sector. Thus, policies that are most likely to be effective are those that accept existing trends rather than those that seek to reverse them.

Thus, state policies on migration if they are to be effective and successful, must be based on a sound understanding of the nature of migration flows, as well their determinants and consequences.

REFERENCES

Ahmed, A. Maqsood and I. Sirageldin (1993), 'Socio-economic Determinants of Labour Mobility in Pakistan', *The Pakistan Development Review* 32 (4), pp. 1031-1041.

Ahmed, A. Maqsood and I. Sirageldin (1994), 'Internal Migration, Earnings and the Importance of Self-Selection', *The Pakistan Development Review* 33 (3), pp. 21-277.

Agesa and Richardu (2000), 'The Incentive for Rural to Urban Migration a Re-examination of the Harris-Todaro Model', *Applied Economics Letters* 7(2), pp.107-111.

Ali, G., (1977), 'A Development Model and Foreign Exchange Requirement in Pakistan', *The Pakistan Development Review*, 26 (3) pp. 87-108.

Barkley, Andrew P. (1991), 'The Determinants of Interdistrict Labour in-Migration in Pakistan, 1971-1980', *The Pakistan Development Review*, 30 (3) pp. 275-296.

Irfan, M., (1986), 'Migration and Development in Pakistan. Some Selected Issues', *The Pakistan Development Review*, 25 (4) pp .743-755.

Federal Bureau of Statistics, Government of Pakistan, 'Labour Force Survey 1996-97.

Irfan, M. Lionel Demery and G.M. Arif (1983), 'Migration Patterns in Pakistan: Preliminary Results from the PLM Survey, 1979'. *Pakistan Institute of Development Economics* (Studies in Population, Labour Force and Migration Project, Report No. 6).

Government of Pakistan (1998), *'Population and Housing Census of Pakistan'*, Provisional Results of Punjab.

Khan, H. Aliya .and Lubna Shahnaz (2001), 'Determinants of Internal Migration in Pakistan: Evidence from the Labour Force Survey 1996-97', Pakistan Institute of Development Economics (Paper Presented at the 16th Annual General Meeting, Jan 22-24, 2001).

Marwat, Himayatullah (1998), 'Urbanization and its Concomitant Hazards', Pakistan. 2nd September 1998.

Sjaastad, L.A. (1962), 'The Costs and Returns of Human Migration', *The Journal of Political Economy'* 7(5) pp. 80-93.
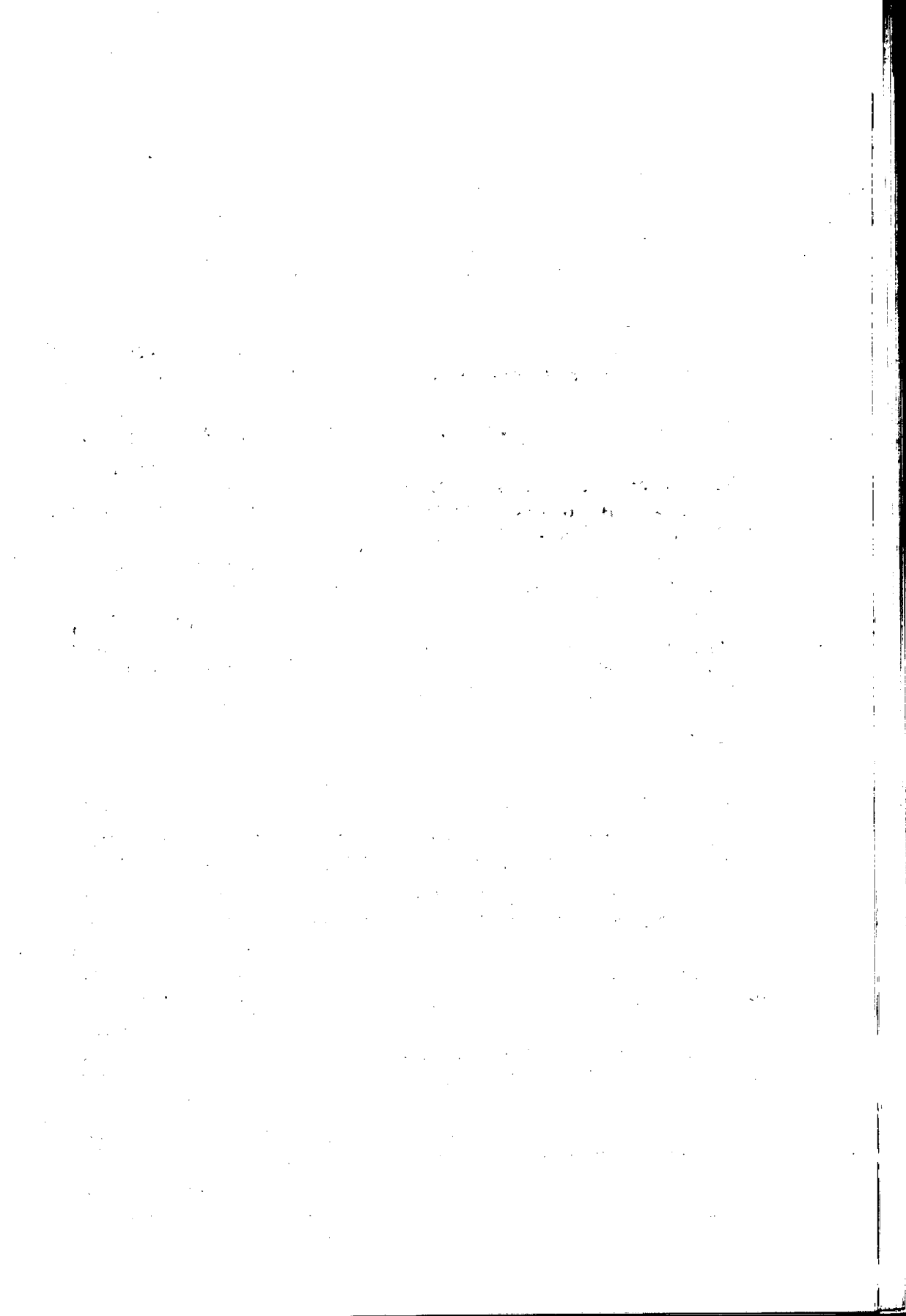
NEW ECONOMIC REGULATORY REFORMS IN PAKISTAN

Javed Iqbal[1]

ABSTRACT

Regulation function of a sate is a part of allocation function. Public regulation refers to the implementation of rules by an administrative agency that is backed by law. The systems of self-regulation in which rules are imposed voluntarily and backed up by an informal code of practice rather than law. The real object of regulation is to bring efficiency or a prerequisite of efficiency. Efficient regulation improves economy, consumer needs and producer rights protection against exploitation. This is usually achieved and possible by the interventions of governments in a country like Pakistan.

1. INTRODUCTION

Looking the normative side view, why is it that a public sector or government intervention is required? If one starts with the premises, generally accepted in our society, that (I) the composition of output should be in line with the preferences of individual consumers and that (II) there is a preference for decentralized decision making; why may not the entire economy be left to the private sector? Or, putting it differently, why is it that in a supposedly private enterprise economy, a substantial part of the economy is subject to some form of government direction, rather than left to the "invisible hand" of market forces? In part, the prevalence of government may reflect the presence of political and social ideologies which depart from the premises of consumer choice and decentralized decision making. But this is only minor part of the story. More important, there is the fact that the market mechanism alone cannot perform all economic functions. Public policy is needed to guide, correct, and supplement it in certain respects. It is important to realize this fact since it implies that the proper size of the public sector is to a significant degree a technical rather than an ideological issue.

In the postwar period the regulatory role of government has expanded and has been a source of concern for those who see increased government intervention in the economy. Professor Schumpeter's view 'the capitalist system would produce a social order which would find hostile and would wish to regulate'. Regulation exists to protect the public interest against the dysfunction of certain unregulated market outcomes, e.g. the irrationality and selfishness of free market capitalism. In eighties the experiences in the US and the UK has been against the regulatory role of government on the grounds that such controls constrain personal freedoms and efficient market choices.

It is general perception that governments all over the World until the mid – 1970s especially in the developing economies, intervened in markets on the pretext of market failure arising from externalities and decreasing cost industries and the equity consideration with a view to maximizing social welfare. In

---

[1] Mr. Javed Iqbal, Assistant Professor, Department of Economics & KIDS. University of AJ&K MZD. Pakistan.

Pakistan, where private sector has played a dominant role, except probably for the 1970s[1], private sector activities have all along been regulated through various types of controls and regulations and entry and exit, prices, credit, foreign exchange, imports, investment etc. These regulations were imposed with a view to ensure that private sector allocations are in accordance with the national priorities [see Economic survey of Pakistan (1983-84)]. However, intended objectives were rarely realized that regulation as a limit and obstacle for development and growth.

Regarding the issue, in this paper, we have made a comprehensive review of literature and, on the basis of literature information; we have discussed the regulatory role of the government and highlighted the importance of regulation function of government. By providing the sufficient information about regulation and regulation function of government, we have made a discussion on the regulation in Pakistan and finally conclusion and policy proposals are drawn.

2. LITERATURE REVIEW

Markets in LDCs are permeated by imperfections both of structure and operation. Commodity and factor markets are poorly organized and the existence of 'distorted prices' often means that producers and consumers lack the necessary information to act in a way conductive to efficient production and distribution. Second, well-organized capital markets based on the existence of specialised financial institutions performing a great variety of monetary functions, (such as the channeling of private saving into loan markets to provide capital funds to finance investment projects) are either non-existent or poorly developed in most Third World countries. In short, the inefficiency or absence of well organized commodity, factor and capital markets is said to reduce considerably the external interference. The failure of the 'market' to price factors of production correctly is further assumed to lead to gross disparities between social and private valuations of alternative investment projects. In the absence of governmental interference, the market is said to lead to a misallocation of present and future resources or at least to one which may not be in the best long-run social interest. This market failure argument is perhaps the most often quoted reason for the expanded role of government in less developed countries.

The regulation role of government has expanded in the postwar period and has been a source of concern for those who see increased government intervention in the economy. According to Schumpeter, the capitalist system would produce a social order which would find hostile and would wish to regulate. Regulation exists to protect the public interest against the dysfunction of certain unregulated market outcomes, e.g. the irrationality and selfishness of free market capitalism. In eighties the experiences in the US and UK has been against the regulatory role of government on the grounds that such controls constrain personal freedoms and efficient market choices. Governments all over the world until mid-1970s, especially in the developing economies, intervened in markets on the pretext of market failure arising from externalities and decreasing cost industries and equity considerations with a view to maximizing social welfare. Governments have long used economic, social, and administrative regulations to better adjust public and private interests, and the two most common arguments

for the regulatory intervention are market failure and equity considerations. If the economies of scale exist in an activity, a single firm would be able to meet the entire demand at the lowest cost but in that case monopolistic power of the firm will have to be restrained through regulation to ensure the potential improvement. A clear statement of this viewpoint was presented in a 1965 report of a United Nation Conference on planning, which asserted: "It is an integral task of planning to achieve the best possible use of scarce resources for economic development ...The need for using appropriate criteria for selecting projects arouse because of the failure of the market mechanism to provide a proper guideline. In less-developed economies, market prices of such factors of production as labour, capital and foreign exchange deviated substantially form their social opportunity costs and were not, therefore, a correct measure of the relative scarcity or abundance of the factory in question (United Nation 1965, page 12)."

A 1970 publication of United Nations Industrial Development Organization (UNIDO) provided the following explicit market-failure rationale for planning in LDCs: "Government can not and should not, take a merely passive role in the process of industrial expansion. Planning has become an essential and integral part of industrial development programmes for market forces by themselves cannot overcome the deep-seated structural rigidities in the economies of developing countries ....Today the need for some degree of economic planning is universally recognized. It is of course an integral part of the economy of Soviet Union and the other centrally planned countries.....In developing countries, planning is more feasible and more desirable than in developed market economies. The greater feasibility is a result of the smaller number of variables that must be taken into consideration and the greater desirability stems from the fact that the automatic mechanisms for coordination of individual actions function less satisfactorily in developing than in developed economics. Planning in developing countries is made necessary by inter-alia the inadequacies of the market as a mechanism to ensure that individual decisions will optimize economic performance in terms of society's preferences and economic goals...The inadequacy of the market mechanism as a means of allocating resources for industrial development sometimes results from government policy itself or because the theoretical assumptions (particularly with respect to the mobility of the factors of production) do not apply to the actual economic situation. Even more importantly, the market mechanism cannot properly allow for the external effects of investment (R. Helfgoth and Schiavo—Campo, 1998)", in production efficiency (Boylaud and Nicoletti, 2000)[2]. Beside these, various regulations directly impact the market decisions such as pricing, competition, market entry or exit. It is obvious that only if regulations are effectively implemented policy objectives are realised. However, in most of the countries results of regulation have been quite disappointing. Interestingly regulatory failures tend to result in even more regulation and very rarely the underlying reasons for failure are assessed. Failure may arise due to various factors [Guasch and Khan, 1999]. Firstly, economic regulation requires information on cost and demand structure of an industry to which the regulations typically do not have any access. Second, producers find it very difficult to comply with the rules which are quite complex and technical. Moreover, the actions to improve

compliance have been uncoordinated and unsystematic. Third, regulations are sometimes used to influence private gain rather than to correct market failure. The regulatory instruments such as quotas, licenses and subsidies have been used in Pakistan and elsewhere to channel significant amount of wealth to influential groups in the society. It is therefore quite clear that there is a real risk that regulations may become an obstacle to achieving the very economic and social well being for which they are intended.

Accordingly, any such regulation that creates unnecessary barriers to trade, investment and economic efficiency or, protects vested interests that seek protection from competition must be withdrawn. The hidden costs of inefficient regulation is so high that failure to reform can place the entire economy to a great disadvantage requiring protectionist policies, heavy subsidies and other forms of support.

Liberalizing trade, encouraging competition and reforming government institutions are mutually supportive. Stable macroeconomic policy, flexible labour markets, appropriate regulation of capital markets and complementary structurally reforms provide a supportive environment that facilitates adjustments flowing from the regulatory reform. It is quite obvious that in case of natural monopolies injection of more competition by introduction of additional firms into market would be counter productive. In such activities regulations may be necessary to curb the monopolistic exploitation. However, close regulation of investment and other decisions of the firms may leave very little room for improving the levels of efficiency. As has rightly been argued by Baumol (1996), regulation may be detrimental to growth of productivity unless regulation is efficient; if the regulators pursue inconsistent policies the producers would be unable to take decision in accordance with the market conditions in time.

While the transparency of regulatory process is essential, it must promote efficiency. If the regulation is done through accounting conventions such as cost plus formula or the guaranteed rates of return there will hardly be any incentives for reducing the cost of production. There has been a considerable debate over the use of prices and output as instruments of control. Weitsman (1974) points out that the preferred policy instrument depends on the relative steepness of the marginal benefit and cost curves. Chen (1990) argues that uncertainty at the decision stage breaks down the equivalence of price and quantity as instruments of control. Fraja and Iossa (1998) believe that "breakdown is due to the presence of both asymmetry of information and the competitive fringe: without either of them price and quantity regulation are equivalent". While it is possible to devise a regulatory mechanism such as price cap yielding both hoser prices and stronger incentives for cost reduction, Fraja and Iossa also suggest that by setting the output floor, regulators make sure that there are improvements in the efficiency levels and these are shared between the firms and the consumers rather than all of these accruing to the firm only. Stigler (1971) points out that the regulatory capture would shape policy outcomes depending on how the interest groups' influence evolve over time and the regulatory institutions are able to ward off their influence. The regulatory commission all over the world go through a life cycle starting out as vigorous, imaginative, and enthusiastic protagonists of the public

interest but over time they gradually become devitalized with limited perspective, indulge in routine and bureaucratic policies and procedures, and increasingly become protective of the interests of the companies they are supposed to regulate. The influence of interest groups increases over time, collusions are formed and they are quite costly to the society. [see Lierson (1949), Bernstein (1955), Huntington (1966), Downs (1967) and Olson (1982)]. Because of the close relationship with the industry the regulators get information which can be socially useful but the regulators get information which can be socially useful but the regulators tend to use this information and discretionary powers to get bribes or future job opportunities in the industry [Laffont and Tirole (1993)]. To the extent effective regulation improves the prospects for competitive outcomes, it reduces overall rents that can be appropriated by a private investor. An analysis of the regulation of entry in 85 countries shows that heavier regulation of entry is generally associated with greater corruption and a large unofficial economy but not with better quality of private or public goods. It is also found that the countries with less democratic and more interventionist governments regulate entry more heavily. This evidence is difficult to reconcile with public interest theories regulation but supports the public choice approach, emphasizing rent extraction by those who could influence. For example, see Mc Chesney (1987) and Shleifer and Vishny (1993). Obviously if regulations become inefficient they should either be lifted or reformed so that the intended objectives are realized. The reform must aim at designing regulatory and other instruments, such as market incentives and goal-based approaches that are more flexible, simpler, effective and lower cost. Since administrative regulations, through which governments collect information and intervene, have substantial impact on private sector performance, reforms must aim at eliminating regulations that are no longer required, streamlining and simplifying those that are needed, and improving the transparency of application. Regulatory reform that enhances competition and reduces regulatory costs can boost efficiency, reduce prices, stimulate innovation, and improve the ability of economies to accommodate to change and remain competitive in global markets.

3. REGULATORY ROLE OF THE GOVERNMENT

Within the allocative role, government enacts and enforces laws of contract, etc. This ensures that market trades and private exchanges take place smoothly. But government also administers the more general system of law and justice which regulates individual behaviour. It was seen that government could attempt to regulate the decision of producers and consumers, thereby reducing monopoly elements and externalities, e.g. through the office of Fair Trading and the Monopolies Commission and by anti-pollution Legislation. But there are other instances which it can be thought to be appropriate for government to regulate behaviour of producers in order to protect consumer. The government performing this task, because for example an individual consumer, high costs of obtaining and interpreting information relating to product safety and design. Thus government sets up a system of regulation and control which will produce such information either directly or indirectly. It also due to the reason that individual might not be capable of protecting himself in the sense that he does not have the resources at his disposal to establish and to police minimum standards. Public

regulation refers to the implementation of rules by an administrative agency that is backed up by law. The system of self-regulation in which rules are imposed voluntarily and backed up by law. The system of self-regulation in which rules are imposed voluntarily and backed up by an informal code of practice (e.g. rules of membership) rather than law. Governments have long used economic, social and administrative regulations to better align public and private interests, and the two most common arguments for the regulatory intervention are market failure and equity considerations. If the economies of scale exist in an activity, a single firm would be able to meet the entire demand at the lowest cost but in that case monopolistic power of the firm will have to be restrained through regulation to ensure the potential improvement in production efficiency[3]. Beside these, various regulations directly effect the market decision such as pricing, competition, market entry or exit.

It is obvious that only if regulations are effectively implemented the intended policy objectives are realized. However, in most of the countries results of regulation have been quite disappointing. Interestingly, regulatory failures tend to result in even more regulation and very rarely the underlying reasons for failure are assessed. Failure may arise due to various factors[4]. Firstly, economic regulation requires information on cost and demand structure of an industry to which the regulators typically do not have any access. Second, producers find it very difficult to comply with the rules which are quite complex and technical. Moreover, the actions to improve compliance have been uncoordinated and unsystematic. Third, regulations are sometimes used to influence private gains rather than to correct market failure. The regulatory instruments such as quotas, licenses and subsidies have been used in Pakistan and elsewhere to channel significant amount of wealth to influential groups in the society.

It is therefore quite clear that there is a real risk that regulations may become an obstacle to achieving the very economic and social well being for which they are intended. Accordingly, any such regulation that creates unnecessary barriers to trade, investment, and economic efficiency or protects vested interests that seek protection information and the competitive finger; without either of them price and quantity regulation are equivalent. While it is possible to devise a regulatory mechanism such as price cap yielding both lower prices and stronger incentives for cost reduction. Fraja and Iossa also suggest that by setting the 'output floor', regulators make sure that there are improvements in the efficiency levels and these are shared between the firms and the consumers, rather than all of these accruing to the firms only.

Stigler (1971) points out that the regulatory capture would shape policy outcomes depending on how the interest groups' influence evolve over time and the regulatory institutions are able to ward off their influence. The regulatory commissions all over the world go through a life cycle starting out as vigorous, imaginative, and enthusiastic protagonists of the public interest, but over time they gradually become devitalized with limited perspective, indulge in routine and bureaucratic policies and procedures, and increasingly become protective of the interests of the companies they are supposed to regulate. The influence of interest groups increases over time, collusion are formed and they are quite

costly for the society. [see Lierson (1949), Bernstein (1995), Huntington (1966), Downs (1967) and Olson (1982)]. Because of the close relationship with the industry the regulators get information which can be socially useful, but the regulators tend to use this information and discretionary powers to get bribes or future job opportunities in the industry [Laffont and Triole (1993)].

To the extent effective regulation improves the prospects for competitive outcomes, it reduces overall rents that can be appropriated by a private investor. An analysis of the regulation of entry in 85 countries shows that, heavier regulation of entry is generally associated with greater corruption and a large unofficial economy but not with better quality of private or public goods. It is also found that the countries with less democratic and more interventionist governments regulate entry more heavily. This evidence is difficult to reconcile with public interest theories of regulation but supports the public choice approach, emphasizing rent extraction by those who could influence. For example, see McChesney (1987) and Shleifer and Vishny (1993) from competition must be withdrawn. The hidden costs of inefficient regulation is so high that failure to reform can place the entire economy to a great disadvantage requiring protectionist policies, heavy subsidies and other forms of support.

Liberalizing trade, encouraging competition, and reforming government institutions are mutually supportive. Stable macroeconomic policy, flexible labour markets, appropriate regulation of capital markets and complementary structural reforms provide a supportive environment that facilitates adjustments flowing from the regulatory reform[5]. It is quite obvious that in case of natural monopolies injection of more competition by introduction of additional firms into market would be counter productive. In such activities regulations may be necessary to curb the monopolistic exploitation. However, close regulation of investment and other decisions of the firms may leave very little room for improving the level of efficiency. As has rightly been argued by Baumol (1996). Regulation may be detrimental to growth of productivity unless regulation is efficient: if the regulators pursue inconsistent policies the producers would be unable to take decisions in accordance with the market conditions in time.

While the transparency of regulatory process is essential, it must promote efficiency. If the regulation is done through accounting conventions such as cost plus formula or the guaranteed rates of return there will hardly be any incentives for reducing the cost of production. There has been a considerable debate over the use of prices and output as instruments of control. Weitzman (1974) points out that the preferred policy instrument depends on the relative steepness of the marginal benefit and cost curves. Chen (1990) argues that uncertainty at the decision stage breaks down the equivalence of price and quantity as instruments of control. Fraja and Iossa (1998) believe that "breakdown is due to the presence of both asymmetry of information and the competitive fringe: without either of them price and quantity regulation are equivalent".

Obviously, if regulations become inefficient they should either be lifted or reformed so that the intended objectives are realized. The reform must aim at designing regulatory and other instruments, such as market incentives and goal-based approaches that are more flexible, simpler and effective at lower cost.

Since administrative regulations, through which governments collect information and intervene, have substantial impact on private sector performance, reforms must aim at eliminating regulations that are no longer required, streamlining and simplifying those that are needed, and improving the transparency of application. This role reduces the cost and improves efficiency.

4. REGULATION IN PAKISTAN

Starting with the market-failure argument. Markets in LDCs are permeated by imperfections of structure and operation. Commodity and factor markets are often badly organized and the existence of "distorted prices" often means that producers and consumers are responding to economic signals and incentives that are a poor reflection of the "real" cost to society of the goods, services, and resources. It is therefore argued that governments have an important role to play in integrating markets and modifying prices. Moreover; the "failure" of the market correctly to price factors of production is further assumed to lend to gross disparities between social and private valuations of alternative investment projects. In the absence of governmental interference, therefore, the market is said to lead to a misallocation of present and future resources or, at least, to an allocation that may not be in the best long-run social interests. This market-failure argument is perhaps the most often quoted reason for the expanded role of government in underdeveloped countries.

On the assumption that markets are not always perfect and consumer needs to be protected against monopolistic exploitation and that governments have political goals that market must serve, public intervention has remained the rule in Pakistan. However, not only the intended objectives of regulations were never realized; it led to delays in implementation of decisions. Distorted prices, lack of competition, and poor government management of businesses have hindered economic development, and have introduced inefficiencies in the economies of developing countries. It needs to be noted that a successful private enterprise economy is a central building block of a successful and sustained anti-poverty policy [see Cook (2001)]. In the case of natural monopolies, regulation in the form of setting of prices, profits and quality standard is necessary[6].

The prerequisites for efficient and effective regulations are government's willingness to establish the regulatory rules and allow regulators to operate with high degree of autonomy within the rules. Stable economic environment which does not allow changes in rules, and a political system with checks and balances to avoid any abrupt policy change, goes a long way in achieving the intended objectives. The institutions established for regulatory functions must have proper systems of accountability, transparency, targeting and consistency. High risks associated with the process of regulation arise from uncertainties associated with the nature of rules, information asymmetries, and implementation lapses.

In the following we examine the regulatory reforms carried-out over the last decade and the regulatory authorities that have been established.

4.1 Manufacturing Industries

In the manufacturing sector government interventions have taken three forms. Firstly, controls on prices, investments and imports with a view lo regulating the level and pattern of investment. Secondly, government influenced the profitability of different production activities through protection against imports, export subsidies, and fiscal incentives. Thirdly, government intervened directly in the production process through investments and nationalization.

Private investment was regulated through investment licensing until the 1980s with a view to ensuring optimal utilization of resources. But the process was lengthy and the feasibilities of projects were so fabricated that the proposals were always accepted. It served no purpose but delayed the implementation of investments. Accordingly, the investment licensing requirements were gradually withdrawn and at present neither the indigenous nor foreign investors are required to seek prior approval for setting up any industry. Nevertheless, there are still some irritants in the way of private sector as was noted by the Finance Minister in his budget speech and the government is implementing recommendation of a de-regulation committee for this purpose. An effective one window facility would be rather helpful in this regard.

The government has been encouraging manufacturing sector through import policy, tariffs and subsidies. High effective protection rates, levying export duties on inputs used in various industries, fiscal incentives such as tax holidays, tax credits, and accelerated depreciation allowances; and export subsidy and preferential export financing resulted in sharp growth of the industries. However, as a number of studies [Lewis and Ciuisinger (1968), Naqvi and Kemal (1991), Mahmood and Ahmad (1994)], show the real contribution of manufacturing sector to GDP has been fractional. However, over the last two decades imports have been liberalized, tariffs have been rationalized and the system to provide favours to the industries and firms through SROs have been discontinued. The rationalization is expected to result in higher efficiency levels and allocation of resources in accordance with comparative advantage. The 1997 industrial policy spells out quite clearly the various types of fiscal incentives including the initial depreciation allowance and the duty on imported machinery for different types of industries. Since, protection is the main source of enhancing the profitability, it is not quite clear if the protection and fiscal incentives mutually reinforce each other or they work in opposite directions.

Government of Pakistan has been directly intervening in the manufacturing sector. It established PIDC in 1958, which set up the industries and divested the profitable ones. However, in 1972 various industries including chemicals, fertilizers, automobiles, cement and petroleum refining were nationalized. Subsequently in 1974, vegetable ghee mills and in 1976 rice milling, flour milling and cotton ginning were also nationalized. Throughout 1970s, heavy amount of public investment flowed into the manufacturing sector. Since, quite a few of these industries were making losses and efficiency was low, most of the manufacturing public enterprises have been divested.

Government also instituted a system of price controls. Price Control and Prevention of Profiteering and Hoarding Act 1977 and the office of the Controller General of Prices (CGP) was established in the Ministry of Industries. It allowed the government to fix maximum prices of essential products. This system acted as an impediment in the way of investment and at present the office has been closed. While the market mechanism is allowed to clear the market, the government is expected to intervene to stop monopolistic exploitation. The government is expected to increase the supplies by reducing import duties. Even though the Monopoly Control Authority (MCA) was established in 1971, it has seldom been able to use its influences to protect the consumers. MCA which used to be wing of Corporate Law Authority has become a separate and autonomous regulatory authority to check undue concentration of economic powers, monopoly power and restrictive trade practices.

4.2 State Bank of Pakistan

The State Bank is an autonomous organization and it is the custodian of all the financial matters. It is responsible for smooth functioning of money and exchange markets and monitoring the banks and other financial institutions.

4.3 Exchange Control System

Exchange controls have remained in operation ever since the rupee became overvalued in 1952. It regulated the inflow and outflow of foreign exchange resources to ensure that foreign exchange payments do not exceed the foreign exchange receipts. Under the system, the exporters deposited their foreign exchange earnings to the State Bank of Pakistan, which regulated its expenditure according to its foreign exchange budget. It took into consideration expected receipts through exports and foreign assistance and then made allocations to private and public sectors through import licenses issued to commercial and industrial users by the Chief Controller of Imports and Exports (CCI&E). The Exchange Control System was made an elaborate licensing procedure where the ceilings were fixed for the import of each product. Three types of import licenses were issued -- commercial, industrial and investment. The government relied on licensing rather than tariffs to restrict imports due to unstable prices, unavailability of accurate projections of demand and supply of foreign exchange and an insufficient level of foreign exchange reserves.

Major changes have been effected in foreign exchange control in the recent past. Resident Pakistan, including firms and companies, are allowed to maintain foreign currency accounts in Pakistan and they are allowed to open accounts outside the country as well. Restrictions on holdings of foreign currency and on the foreign exchange allowances for travel have also been removed. The rules governing private sector's foreign borrowing have also been greatly liberalized, especially where no government guarantee is required[7]. Authorized dealers have been allowed to import and export foreign currency notes and coins either to replenish their stock of foreign currency notes or to dispose of surplus holding of foreign currency notes without prior approval of the State Bank. Pakistani currency is convertible at the current account and

Pakistani rupee is on a free float. Nevertheless, State Bank of Pakistan intervenes in the market to stabilize the exchange rate.

4.3 Credit Flows

With a view to ensuring that monetary and credit expansion is in safe limits. Slate Bank used to prepare and implement credit plan through administrative measures. The plan outlined the credit limits on various financial institutions, distribution of credit to private and public sectors and mandatory credit targets for priority sectors in line with national priorities.

Until the reforms were introduced in early 1990s, maximum and minimum interest rates on deposits and advances were set by State Bank. Similarly, the banks were obliged to buy the treasury bills at low rate of 6 percent. However, with deregulation, these are the individual banks which decide the rate of interest on deposits and advances. State Bank influences the money supply and interest rates through market mechanism such as discount rates, open market operation and the liquidity requirements.

The financial sector has been deregulated but the State Bank has strengthened its monitoring and surveillance capacity. The new guidelines to the banking sector include more strict limits on credit concentration and on conditional liabilities; rigid guidelines on the separation of bank ownership and management; tighter margin requirements on equity based advances; and a strong system of classification and provisioning for non performing assets.

4.4 Securities and Exchange Commission of Pakistan (SECT[8])

The Commission established in 1997 as an independent regulatory body, is responsible for regulating the securities and any businesses in stock exchange or in other security markets; supervising and monitoring the activities of any central depository and stock exchange clearing house; registering and regulating the working of stock brokers, share transfer agents, portfolio managers, investment advisors any one associated with security market; registering and regulating the investment schemes; regulation of securities industry and related organizations like leasing companies and financial institutions; protecting the market from unfair practices; promoting investors education and intermediary training; conduction audit of Stock Exchanges and other intermediary organizations; encouraging the development of capital market and corporate sector in Pakistan; regulating acquisition of shares and the merger and take over of companies; and suggesting reforms in the rules and regulation of companies.

The Commission aims at increasing the demand and supply of capital for promoting investment, expanding industrial output and generating employment opportunities. After the stock market crisis in May 2000, the Commission took various measures to restore investors' confidence and to achieve a fair, transparent and efficient stock market[9]. The Commission has also implemented various regulatory reforms including the issuance of the Brokers and Agents Registration Rules and the Insider Trading Guidelines. A major initiative is underway to develop the mutual funds/pension funds to give

the market an institutional foundation. Also regulations have been made more flexible to allow floatation on sector specific funds to cater to different investor preferences and investment guidelines have been made less restrictive. Future Contracts Market and National Clearing and Settlement System have also been established.

4.5 Transport and Communications

Except for the road transport, all other sectors such as telecommunication, railways, shipping and aviation have been in the public sector. However, government intends to privatize the Pakistan Telecommunication and recently its monopoly has been abolished. Two authorities, viz. Pakistan Telecommunication Authority (PTA) and Pakistan Electronic Media Regulatory Authority (PHMRA) have been established to ensure the quality of telecommunication service at reasonable and fair prices.

4.6 Pakistan Telecommunication Authority (PTA)

PTA is a regulatory body for the telecom sector in Pakistan and has been established under the Pakistan Telecommunication (Re-organization) Act 1996. It covers fixed line telephony, mobile telephone, wireless communication, satellite consumer, Internet, AudioNet, Paging Service, Voice mail and Digital Radio paging. It has been formed to ensure and facilitate the availability of high quality, efficient, cost-effective and competitive telecommunication services throughout Pakistan and protect the interests of consumers and licensees. Its main functions include: promoting competition among service providers, regulating the establishment, operation and maintenance of telecom systems and services; issuing licenses to telecommunication service providers and ensuring transparency and non-disorientation in their issuance; protect the rights of consumers as well as of the licensees; promoting modernization and setting quality standards for various services in the sector; promoting internet; managing radio frequency spectrum along with frequency. Allocation Board; taking notice of any complaints against the licensees; transparency and non-discrimination in the issuance.

The authority has taken various steps to modernize the system and increased use of internet. A number of data and Internet service providers are operating their services in the private sector under license from PTA. After getting the license from PTA, a number of private operators have established telecom systems and operate their services through interconnect arrangements with PTCL. Mobile operators are issued notices to improve services otherwise they face penalties. Regarding tariffs, accounting rates for international telephone calls have continued to fall over the last couple of years. And to compensate for the impact reduction in international settlement rates and in line with global trends domestic tariffs have been rationalized.

4.7 Pakistan Electronic Media Regulatory Authority (PEMRA)

PEMRA has been established under the PEMRA Ordinance 2002. PEMRA provides project management guidelines and action plans to the

private sector interested in establishing radio, television and Cable TV stations in the country.

The main objectives of the authority include improvements in the standard of information, education and entertainment; enlarging the choice available to the people of Pakistan in the media for news, current affairs, religious knowledge, art, culture, science, technology, economic development, social sector concerns, music, sports, drama and other subjects of public and national interest; facilitating the devolution of responsibility and power to the grass-roots by improving the access of the people to mass media at the local and community level; and ensuring accountability, transparency and good governance by optimizing the free flow of information.

4.8 Energy

The energy sector has mostly been under the control of the government. The Oil and Gas Development Corporation (OGDC) is responsible for all types of fuel supplies and this together with Pakistan State Oil (PSO) is on the privatization list. In power sector, Water and Power Development Authority (WAPDA) and Karachi Electric Supply Company (KESC), a corporate body under WAPDA's control are the two major suppliers of electricity. Government also intends to privatize the latter and after corporatising may divest the former as well.

4.9 National Electric Power Regulatory Authority (NEPRA)

WAPDA and KESC; the two power agencies, have suffered heavy losses and the need for restructuring of these two organizations was realized almost twenty years back. It was felt that expansion and efficiency of power generation and transmission capacity could not be achieved without the involvement of the private sector.

The government in 1992 prepared the strategic plan for the privatization of the power sector and also approved the creation of an autonomous regulatory agency to introduce transparent and judicious economic regulation in the power sector of Pakistan. NEPRA has been established as an independent regulatory body to improve the efficiency and availability of electric power services while protecting the interests of consumers, investors and the operators equally and to promote competition and deregulate power sector activities where competition exists. Its major responsibilities include: issuing of licensing for generation, transmission and distribution of electric power; enforcement of quality standards and ensuring of safety in the operation and supply of electricity to consumers; determine tariffs for generation, transmission and distribution of electric power; and approving the investment and power acquisition programs of the utility companies.

There are various facets of power industry under the purview of NEPRA. One major issue has been the cross subsidies and NEPRA has achieved some success, though limited, in reducing the cross subsidy. Flat rates have been abolished and the rates for different consumers have been somewhat rationalized. Similarly, NEPRA has asked both WAPDA and KESC to reduce

transmission losses and other efficiency improvement for reducing cost of production. Consumers have also been protected from frequent price variation by allowing only quarterly adjustment for fuel price adjustment. NEPRA has finalized the benchmarks for performance of the distribution companies. To maintain the environmental standards, all the generation companies granted licenses by NEPRA are required to maintain the environmental standards as may be prescribed by the Federal Environmental Protection Agency. But till now nothing substantial is evident except for the issuing of licensing to distribution and generation companies.

4.10 Oil and Gas Regulatory Authority (OGRA)

ORGA was established in 2002 for the development of oil and gas sector enhancement, private sector investment and protecting consumer interests. It regulates various activities including construction or operation of natural gas and oil pipelines and the testing facilities, starling facilities and natural gas installation; construction or operation of natural gas pipelines, testing facility, storage facility and installation relating to LPG/LNG; construction or operation of oil refinery, oil pipelines testing facility, storage facility, blending facility and oil related installation; transmission, distribution and sale of natural gas; transmission, filling, marketing and distribution of LPG/LNG; marketing and storage of refined oil products.

The Authority issues licenses for regulated activities to ensure provision of open access, common carrier and common operator; promote effective competition and enforce performance service and safety standards. It also regulates tariffs by taking into account rate of return, prudent operation and maintenance cost and other relevant sectors, which give a reasonable rate of return. It also determines gas well-head prices and ensures prudent cost-effectiveness and economic efficiency in the investment resources.

5. CONCLUSIONS AND POLICY PROPOSALS

To some extent, the regulatory reforms have been effective in Pakistan over the last five decades, especially in the last two decades. In these last two decades, investment and import licensing have been withdrawn, most of the foreign exchange restrictions have been removed, capital market regulations have been simplified, price controls have been lifted, and interest rates have been deregulated. However, there is considerable room for further regulatory reforms. Similarly, various public enterprises in the manufacturing and financial sectors have been privatized, telecommunication, airlines, and energy firms have been partially divested and the government has an ambitious privatization program of divestiture in various fields. The main force behind the process of privatization is to address the problems of mismanagement of resources, overstaffing, inappropriate and costly investments, poor quality of services and heavy losses of various public enterprises. We can conclude and propose as follows.

1. Privatization policy is pursued in the hope that it will help in improving the levels of efficiency. However, experience with privatization in Pakistan

and elsewhere has been mixed [For example see Kagami (1999) and Kemal (1996, 1999)]. On the one hand privatization and deregulation in several advanced countries has brought down costs and improved services, experience of many developing countries on the other hand shows that the efficiency levels did not improve after divestiture where private sector indulged in monopolistic practices. In Pakistan, privatization of the banking sector seems to be a big success, but in most of the manufacturing industries formation of cartels has led to higher prices by restricting output levels. Privatization in a competitive framework generally results in higher efficiency levels but in case of unregulated natural-monopolies it is not necessarily so. However, if such industries are properly and effectively regulated, they would also show higher efficiency levels. Unfortunately, in the developing countries legislation relating to competition is either non-existent and/or the rules and guidelines for competition are implemented poorly. It needs to be underscore that access to information is the key factor for better regulation but that is rather poor in developing countries.

2. Over the last two decades, Pakistan has significantly reformed its regulatory framework, though still more needs to be done. It has privatized a number of public enterprises and intends to privatize the remaining public enterprises including utilities some of which may still be considered as natural monopolies. With minimal direct intervention of the government in the economy there is a need to ensure that private sector allocation of resources is in accordance with the national priorities and that the monopolists do no indulge in practices to fleece the consumer. Accordingly, incentive structure has to be so reformed that it promotes dynamic comparative advantage, and therefore the consistency between protection afforded and fiscal incentives is ensured. Similarly, the regulatory authorities shall have to be protected against the vested groups and the efficient outcomes are ensured.

3. Reforms in the financial sector have been rather significant. Autonomy of State Bank has been the major achievement and one hopes that the spread between deposit and interest rates would be narrowed down as a result of guidelines provided by the State hank to the financial institutions. The reforms in exchange market have been substantial and the floatation of Pakistan rupee through active monitoring of State Bank would ensure exchange rates in line with long run equilibrium. Similarly, supervision by Securities and Exchange Commission would be helpful in encouraging firms to go public and giving confidence to the investors.

4. With a view to regulating utilities, various regulatory authorities have been set up. Since there is a cycle where the regulatory agencies over time degenerate into protecting the organizations which they are supposed to regulate, checks and balances must be put in place so that persons in responsible positions in these authorities are not corrupted.

5. Moreover, these authorities must have the services of the competent officers who are well versed with the latest regulatory measures whereas in some of the authorities regulators have services of such persons, the others

must make an effort towards recruiting them. A government like Pakistan can play an important role in determining what and how to produce through its various policy measures. For example, Pakistan government can play an important role about agriculture through its pricing policy. Along with the right types of seeds, water, fertilizer and other inputs as well as a package of technology and credit, the pricing policy of agricultural inputs and outputs can determine the direction of agricultural productivity and produce. Agricultural pricing policies can also have a significant impact on income distribution, particularly of small farmers. They can also have a noticeable effect on industrial productivity, urban wage goods, exports and the cost of living; determining the terms of trade between agriculture and other sectors. Similarly, regulation in industrial sector through taxes, subsidies, prices and other incentives play an important role in directing resource allocation in a country like Pakistan. The major benefits of regulatory reforms are reducing poverty rate, increasing consumer benefits by reducing prices for services and products such as electricity, transport and health care; and by increasing choice and service quality; reducing the cost structure of exporting and upstream sectors to improve competitiveness. Further more, it is expected that by the regulatory reform that enhances competition and reduces regulatory costs can boost efficiency, reduce prices, stimulate innovation, and improve the ability of economies that adapt to change remain competitive in global markets.

NOTES

1.   Hanks, insurance companies, chemicals, light and heavy engineering, petro-chemicals, petroleum refining, vegetable ghee and cement ghee and cement were exclusively in the public sector in 1970s and only in 1980 and after wards private sector was allowed lo invest in these sectors.

2.   The argument of natural monopoly has been diluted over the last few years because of development in technology.

3.   The argument of natural monopoly has been diluted over the last few years because of development in technology [Boylaud and Nicoletti (2000)].

4.   For details, see Gnash and Khan (1999).

5.   The major benefits of regulatory reform include: boosting consumer benefits by reducing prices for service and products such as electricity, transport, and health care, and by increasing choice and service quality; reducing the cost structure of exporting and upstream sectors to improve competitiveness, and addressing a lack of flexibility and innovation in the supply-side of the economy, thereby reducing national vulnerability to economic shocks. Concerns about costs to workers in restructuring sectors, the quality of new jobs in terms of security and benefits, consumer protection must not be overlooked.

6.   As pointed out by Parker (2000), there are three stages of regulation associated with the development of natural monopoly viz. regulating the

monopoly right after privatization; promoting and policing competition; and maintaining that competition through effective national competition laws.

7. A host of other restrictions on foreign payments have been removed, e.g. for foreign advertisements, education, professional institution's membership, non-resident journalists fees, posting of newspaper correspondents abroad, publications, trade fairs and exhibitions, and excess baggage on foreign airlines. The non-residents can also invest in the government securities including NIT Units on repairable basis.

8. Before the establishment of SECP, Corporate Law Authority (CLA) attached to Ministry of Industries had been administering the corporate laws since 1981.

9. Some of the steps taken include implementation of the T+ f 3 settlement system, substantial increase in net capital requirements, stipulation of capital adequacy requirements for brokers, strengthening of margin requirements, appointment of 40 percent independent directors on the boards of the stock exchanges and initiation of actions to ensure the independence of the Commission's Chief Executive Officer (CEO) of each exchange.

REFERENCES

Baumol, William J. (1996), Rules for Beneficial Privatization: Practical Implications of Economic Analysis. Islamic Economic Studies.

Bernstein, M. (1955), Regulatory Business by Independent Commissions, Princeton: Princeton University Press.

Boyland, O. and G. Nicoletti (2000), Regulation, Market Structure and Performance in Telecommunications. OECD Economics Department Working Paper No. 237, Pairs.

Chen, P. (1990), Prices vs. Quantities, and Delegating Pricing Authority to a Monopolist. *Review of Economic Studies*, vol. 57, pp. 521-529.

Cook, Paul (2001), Competition and its Regulation: Key Issues, Centre on Regulation and Competition, Working Paper No. 2, University of Manchester.

De Fraja, Gianni and Elisabetta Iossa, (1988), Price Caps and Output Floors: A Comparison of Simple Regulatory Rules. *The Economic Journal*, 108, September, 1404-1421.

Downs. A. (1967), Inside Bureaucracy. Boston: Little Brown and Company.

Faure-Grimaud, Antoine (2002), Using Stock Price Information to Regulate Firms. *Review of Economic Studies*, 69: pp. 169-190.

Government of Pakistan (1984), Pakistan Economic Survey, Ministry of Finance, Islamabad.

Guasch, J. Luis and Robert W. Hahn (1999), The Costs and Benefits of Regulation: Implications for Developing Countries. *The World Bank Research Observer*, vol. 14, no. 1: 137-158.

Helfgotlh, R. and S. Schiavo-Campo, "An Introduction to Development Planning," UNIDO Industrialization and Productivity, Bulleting, no. 16 (1970), A more sophiticated version of the market failure argument as applied to contemporary LDCs can be found in H.W. Arndt, "Market Failure and Undcrdevclopment", *World Development*, no.16 (February 1988), 219-229.

Huntington, S. (1996), The Measures of the ICC: The Commission, the Railroad and the Public Interests, in P. Woll (ed.), Public Administration Policy: Selected Essays. New York: Harper and Row.

Kagami, Mitsuhiro (1999), Privatization and Deregulation: The Case of Japan, in Mitsuhiro Kagami and Masatsugu Tsuji (eds.) Privatization, Deregulation and Institution Framework, Institute of Development Economics, JETRO, Japan.

Kahn, A. (1988), The Economics of Regulations: Principles and Institutions: 2nd ed. Cambridge: MIT Press.

Kemal, A. R., Zafur Mahmood and Athar Maqsood Ahmad, (1994), Structure of Protection, Efficiency, and Profitability, Study prepared for the Resource Mobilization and Tax Reforms Commission.

Kemal, A. R. (1999), Why Regulate a Privatized Firm? *Pakistan Development Review*, 25:4 Part II, 649-656.

Kemal, A. R. (1996), Privatization in Pakistan-Effects and Restructuring, Pakistan Institute of Development Economics, Islamabad.

Kemal, A.R. (2003), The Regulatory Framework in Pakistan, Annual General Meeting and Conference, Islamabad, 13th - 15th January, 2003.

Kemal, A.R., Faiz Bilquees and Afia Malik (2002), Economy and the Government: Privatization and Regulation in Pakistan. Pakistan Institute of Development Economies, Islamabad.

Laffont, J. J, and Tirote, J. (1993), A Theory of Incentives in Regulation and Procurement. Cambridge: MIT Press.

Lewis, S,R. Jr. and S.R.Guisinger (1968), Measuring Protection in a Developing Country: The Case of Pakistan. *Journal of Political Economy*. November/December.

Lierson, A. (1949), Interest Group in Administration, in F. Morstein Marx (ed.) Elements of Public Administration, New York: Prentice Hall.

Martimort, David (1999), The life Cycle of Regulatory Agencies: Dynamic Capture and Transaction Costs. *Review of Economic Studies*, Vol. 66, 929-947.

McChsney, Fred S. (1998), Rent Extraction and Rent Creation in the Economic Theory of Regulation, *Journal of Legal Studies*, XVI, 101-118.

Naqvi, Syed Nawab Haider and A.R. Kemal (1991), Protectionism and Efficiency in Manufacturing: A Case Study of Pakistan. San Francisco: ICS Press.

NEPRA (2001). Annual Report 2000-2001, National Electric Power Regulatory Authority, Islamabad.

OECD (2000), Reducing the Risk of Policy Failure; Challenges for Regulatory Compliance Organization for Economic Cooperation and Development, Paris.

OECD (1997), The OECD Report on Regulatory Reform Synthesis. Organisation for Economic Cooperation Development, Paris.

OECD ONLINE about Regulatory Reform:
http://www1.oecd.org/subject/regrefrorm/about/index.htm#What%20

OECD Regulatory Quality and Public Sector Reform,
http://www1.oecd.org/ puma/regref/

Olson, M. (1982), The Rise and Decline of National Economic Growth, Stagnation and Social Rigidities. New Haven: Yale University Press.

Parker, David. (2001), Economic Regulation: A Preliminary Literature Review; and Summary of Research Questions Arising. Centre on Regulation and Competition, Working Paper No. 6, University of Manchester.

R, Uelfgoth and S. Schiare -Campo, "An Introduction to Development Planning," UN1DO Industrialization and Productivity Bulleting, no. 16 (1970): 11. A more sophisticated version of the market-failure argument as applied to contemporary LDCs can be found in H.W. Arndt, "Market Failure and Underdevelopment," *World Development"* no. 16, (February 1988): 219-229.

Srinivasan, T.N, Samuel C Park Jr. Professor. Privatization, Regulation and Competition in the Indian Subcontinent 18th Annual. General Meeting and Conference. Islamabad, Pak, 13th January 2003.

Srinivasan, Andrei, and Robert W. Vishny (1993). Corruption. Quarterly Journal of Economics, CVIII, 599-617.

United Nations, Planning the External Sector: Techniques, Problems and Policies (New; York): United Nations, 1965, P. 12.

Weitzman, M.L. (1974). Prices vs. Quantities. *Review of Economic Studies,* Vol. 41.477-91.

GENDER DISPARITY IN EDUCATION-EXTENT, TRENDS AND FACTORS

Rana Ejaz Ali Khan[1], Karamat Ali[2] and Tasnim Khan[3]

ABSTRACT

The Program of Action agreed at International Conference on Population and Development, Cairo in 1933 gave considerable attention to the need to raise education enrolment ratios for females. National Education Policy 1998-2010 expressed the feature of making arrangement for reducing gender disparities at all levels. The thrust of Social Action Programs (Phase I and II) was to reduce the gender disparity emphasizing on girls education specifically in rural areas [GOP 1998:126,123]. In the last decade, the government has made efforts to decrease the disparity. What remained the extent and trend of disparity in the decade is the focus of the study. The possible explanations have also been presented. It is concluded that gender disparity has decreased in the last decade but at a disappointing rate and is still at an alarming level. It is comparatively low at college level.

1. INTRODUCTION

During the year 1999-2000 the literacy rate of Pakistan is estimated at 47.1 percent (59.0 percent for male and 35.4 percent for female) [GOP 2001]. Studies show that in Pakistan school enrolment is low, school dropouts are widespread, and there is a distinct gender gap in education [Behrman and Schneider 1993; Sawada 1997; Ray 2001]. Other problems facing education sector in Pakistan are: low quality of education, regional disparity in education, low status of teachers, neglected elementary education, low allocation for education and high educational cost, etc.

At Jomtein Conference 1990 "Education for All", girl's education was given a major priority and Pakistan had committed for it. In the context of Pakistan, gender of the children is an important characteristic affecting child schooling [Sathar 1993]. Human development performance in Pakistan has suffered especially from discrimination against females [Ranis etal. 2000]. The choice of focusing on gender disparity in education is based on the broad social benefits of educating girls, which are almost universally acknowledged [see, GOP 1998:123]. They include the following: the more educated mother is, the more infant and child mortality is reduced; children of more educated mothers tend to be better nourished and suffer less from illness [Thomas 1990. Schultz 1993]; children (and particularly daughters) of more-educated mothers are more likely to be educated; the more years of education women have the later they tend to marry and the fewer children they tend to have; educated women are less likely to die in childbirth; the more-educated a women is the more likely she is to have

---

[1] Rana Ejaz Ali Khan is Lecturer in Economics, Government Faridia College Pakpatan, Currently Ph.D. Scholar in BZU, Multan.

[2] Karamat Ali is Dean, Faculty of Commerce, Law and Business Administration, BZU, Multan.

[3] Tasnim Khan is Chairperson, Department of Economics, Islamia University, Bahawalpur.

opportunities and life choices and avoid being oppressed and exploited by her family or social situation; educated women are more likely to be receptive, to participate in and influence development initiatives; educated women are more likely to play a role in political and economic decision-making at community, regional and national levels [UNICEF 1999; King and Hill 1993]. Hill and King [1995] found that a 10 percent increase in girl's primary enrolment can decrease infant mortality by 4.1 deaths per 1000 and a similar rise in girl's secondary enrolment by another 5.6 deaths per 1000. Summers [1992] found that in Pakistan an extra year of schooling for an additional 1000 girls can prevent 60 infant deaths. Jones [2000] narrated that educating girls has an independent impact on child mortality, child health and nutrition, reduced fertility, and schooling and cognitive development of children. In general, the impact is greater than that obtained by educating boys.

2. OBJECTIVES

The precise objective of the study is to ascertain:
❑ The extent and trend of the gender disparity in the last decade, i.e. 1990-2000.
❑ The disparity for primary, middle, secondary and college (science and arts-non-professional college) level.
❑ The disparity in enrolment rate, availability of teachers and educational institutions.

3. METHODOLOGY AND DATA

There are a number of parameters for gender disparity in education like the age of entry into school, enrolment rate, dropout rate, quality of education, student teacher ratio, budget allocated for education, number of teachers available and number of institutions etc. To keep the study in manageable limits and availability of data from a single source (as the data from different sources have different methodology, concepts, and way of collection of data, so the use of data generated by different sources is avoided only three parameters, i.e. enrolment rate of students, available teachers and institutions are analyzed in the present study. Another reason to include these parameters is based on the assumption that availability of teachers and institutions increase enrolment rate.

Gender disparity exists at all levels of education but in the present study it is discussed up to college level. The levels of education are as: grade I to V, (primary level) grade VI to VIII (middle level) grade IX to X (secondary level) and (grade XI to XII) college level of education. Moreover, gender disparity differs for the provinces of Pakistan but assuming the same impact of national policies on national level it is analyzed at national level.

The gender disparity in each level of education is calculated by the ratio of female to male (F/M Ratio) enrolment (for gender disparity in enrolment), the ratio of female to male number of teachers (for gender disparity in available teachers), and ratio of female to male number of educational institutions (for gender disparity in available institutions). The data is obtained from Pakistan Statistical Year Book 2002 [FBS 2000], and authors have calculated the F/M ratios.

4. DISCUSSIONS AND RESULTS

The precise results are as follow

- The gender disparity in enrolment has improved at the secondary level of education among all the levels of education under study and it improved lowest at the primary level during the decade. This type of disparity is still highest at the secondary level and lowest at college level.

- The gender disparity in teachers has improved best at the middle level among all the levels of education while it has improved worst at the primary level. This type of disparity is highest at secondary level and lowest at middle level of education.

- The gender disparity in educational institutions has improved highly at the secondary level of education and lowest at the middle level. It is still highest at primary level and lowest at middle level.

- The gender disparity in enrolment (average of 1990-2000) increased from primary to secondary level but decreased at college level

- The gender disparity in teachers decreased from primary to middle level then it increased at secondary level and again decreased at college level.

- The gender disparity in educational institutions decreased from primary to middle level and then increased at secondary level and again decreased at college level.

- Only at the secondary level of education there exists a correlation between the gender disparity in enrolment (and ultimately enrolment of girls) and gender disparity in teachers as well as educational institutions (and ultimately number of teachers and educational institutions).

The trends of gender disparity in the decade for three types of disparities for each level of education are shown in the graphs. In graph No.1, disparity in enrolment for the levels of education is shown. In graph No.2, disparity in teachers available for the levels of education and in graph No.3, disparity in educational institutions for levels of education is shown. In graph No.4, the trends of gender disparity from primary to college level for each type of disparity is shown.

Graph 1
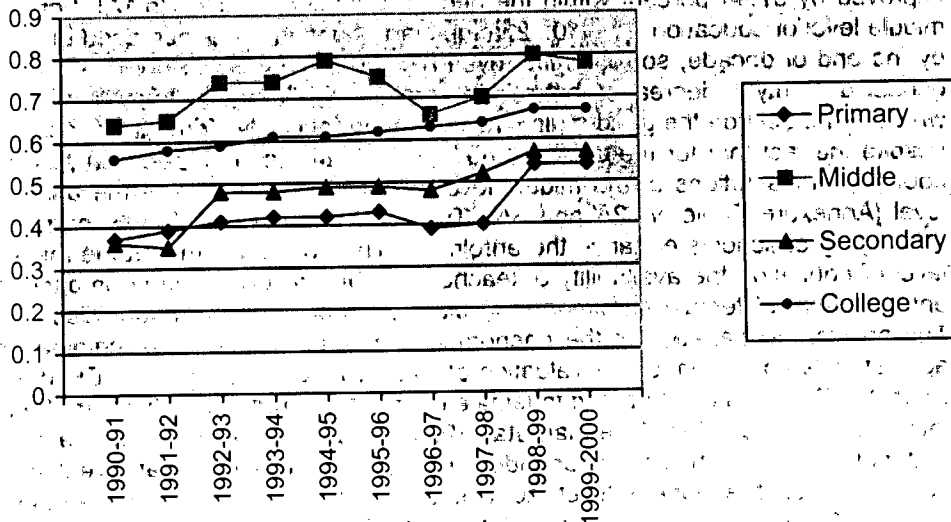**F/M Ratio in Enrollment During 1990-2000**
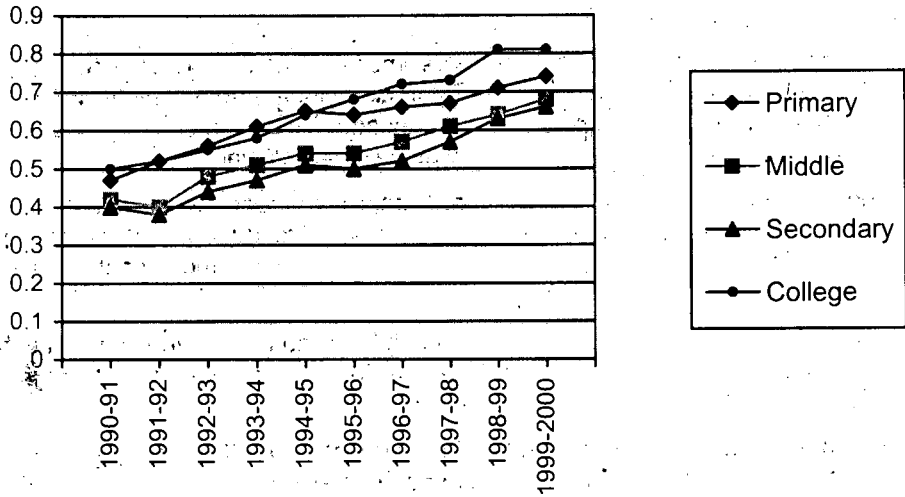
Graph 2
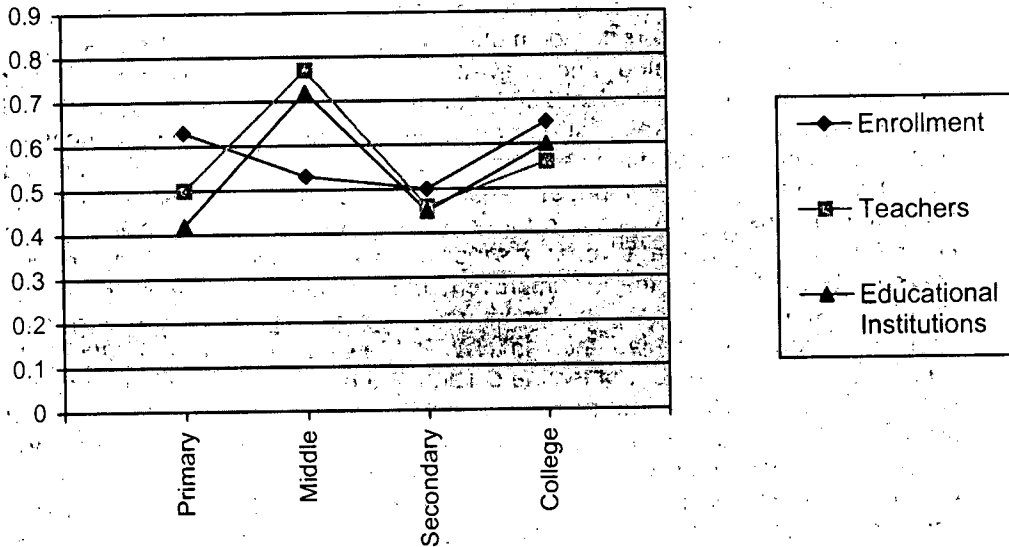**F/M Ratio in Enrollment During 1990-2000**
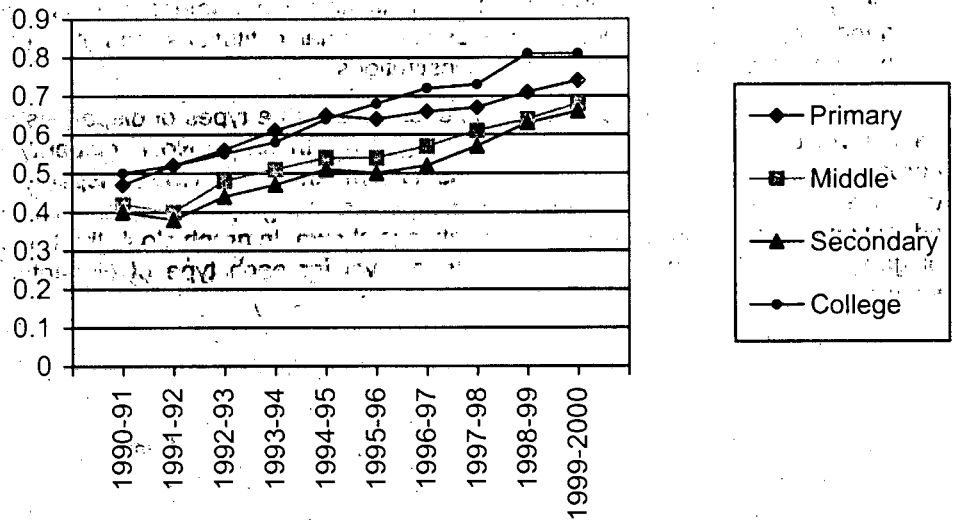
Graph 3
F/M Ratio of Educational Institutions During 1990-2000

Graph 4
Average (of 1990-2000) F/M Ratio for Level of Education

The gender disparity in enrolment has decreased for primary and secondary levels of education during the decade of 1990-2000. In 1990-91, the female to male ratio (F/M ratio) for enrolment was 0.47 for primary level of education. It reached to 0.74 in 1999-2000 [Annexure Table No.1A], so the F/M ratio has improved by 57.44 percent within the decade [Annexure Table No.1A]. For the middle level of education it was 0.42 in the start of decade and increased to 0.68 by the end of decade, so it has improved almost 62 percent. In both cases the gender disparity is decreased but relatively more rapidly at middle-level. But for whole of the decade the gender disparity remained relatively high at middle level, despite the fact that for the duration the F/M ratio for teachers and F/M ratio of educational institutions at the middle level remained better than at the primary level [Annexure Table No.2A and 3A]. Though Alderman etal. [1996] narrated that supply of schools enhance the enrolment. The notion lies that at the middle level of education the availability of teachers and institutions have no impact on enhancement of female enrolment and ultimately decrease in gender disparity. The possible explanation of the phenomenon may be the social discrimination against girl's education, under-valuation of girls by teachers [see, UNICEF 1999; Shah 1986], low value attributed to female education in rural areas [Sathar 1993], low quality of education [Alderman etal, 1995, 1996], non-availability of teaching materials for girl schools compounding the physical problem that affect girls specifically, such as lack of toilet facilities and boundary wall in the school [see, UNICEF 1999]. Gender has a strong influence in rural areas. Being a girl in rural Pakistan reduces the chances of attending school. The probability of entering school is 64 percent for boys and 24 percent for girls in rural areas.

The parents perceive less advantage of girl's schooling [Sathar 1993; see also Sawada and Lokshin 2000]. Parents prefer to have female teachers for their girls and there are fewer educated women than men who could serve as teachers in rural areas. Furthermore, social taboos on female travel make it difficult for women teachers to commute daily from urban to rural areas. Rural parents are less educated and may see less value from school of their daughters. Sawada and Lokshin [2000] narrated that the custom of seclusion of women "rigid purda" makes a strong negative perception for female education. High opportunity cost of daughter's education, higher dropout rate of girls and lack of schools in villages impedes female education. So, the average years of schooling for girls is 1.6 years and for boys it is 6.6 years and the children who entered schools the average years of schooling become 6 years for girls and 8.8 years for boys. To keep the low improvement in gender disparity in enrolment, regional disparity in female enrolment has also played a role. The gender disparity is lower in Punjab than in NWFP [Sawada and Lokshin 2000]. In Balochistan only 15 percent of female children aged 10 and older have attended school [Kim et. al. 1998]. The primary school gross enrolment ratio for boys and girls in NWFP is 82 and 51 and in Balochistan it is 68 and 41. Similarly, the secondary school Gross Enrolment Ratio in NWFP for boys and girls is 68 and 41 and in Balochistan it is 65 and 14 [FBS 1999]. On the other hand, improvement in F/M ratio for enrolment at primary level may be due to the government's hectic efforts focused on primary education during the decade through the Prime Minister Literacy Commission (PMLC), education department's

and NGO's efforts for girl's primary education [GOP,1998:112], the Social Action Program (phase I and II) which stressed on primary education specifically of rural girls, and Girls Primary Education Development Project (GPEDP) financed by foreign assistance, etc.

The gender disparity in enrolment at secondary level of education was 0.4 percent in 1990-91 and 0.67 percent in 1999-2000 [Annexure Table No.1B], so the disparity has decreased by 67.5 percent in the decade or at the average rate of 6.75 percent annually. At the college level it was 0.50 in 1990-91 and it reached 0.81 in 1999-2000, so gender disparity decreased by 64 percent with an annual rate of 6.4 percent. The gender disparity has decreased comparatively rapidly at secondary school. The gender disparity in educational institutions at the secondary level of education was changed from 0.36 in 1990-91 to 0.52 in 1999-2000 [Annexure Table No.3B] with a 44 percent change. The same type of disparity at the college level was 0.56 in 1990-91 and reached at 0.64 in 1999-2000 [Annexure Table No.3B] with 14 percent change in the decade. The disparity at the college level has improved much less than that at the secondary level. So, the lack of educational institutions at the college level may be one of the reasons of lower improvement in gender disparity in enrolment at the college level. As the availability of teachers enhance the enrolment rate so the other reason to keep the improvement in gender disparity is low enrolment at college level may be the lower improvement in the disparity in teachers at college level [Annexure Table No.2B] that is only 13 percent in the decade. On the other hand, high improvement in gender disparity in enrolment at the secondary level may be due to the good improvement in gender disparity in teachers, i.e. 24 percent. Similarly, the lower improvement in enrolment at the primary level may be due to the slight improvement in gender disparity in teachers at the primary level.

The improvement in gender disparity in enrolment is highest at the secondary level. It is interesting to note that despite the stress of government and NGOs on the enhancement of girl's enrolment, at primary level the gender disparity in enrolment at primary level has improved less than secondary level of education. The gender disparity in educational institutions has highest improvement at the secondary level, i.e. 44 percent, so there exist a correlation between the disparity in enrolment and disparity in institutions. Consequently, there exists a correlation between enrolment of girls and educational institutions. Similarly, the gender disparity in teachers at the secondary level has improved much higher than that at primary level, so there also exist a correlation between gender disparity in enrolment and gender disparity in teachers at the secondary level. It may be concluded that provision of female teachers may increase the female enrolment and consequently decrease the gender disparity.

The correlation between the disparity in enrolment and disparity in teachers and in institutions at the primary level of schooling is negated by the figures. As within the decade the disparity in enrolment at primary level has improved 57 percent while disparity in teachers has improved just one percent and disparity in institutions has improved 29 percent. The figures need more consideration as the stress of the government is on primary level of education specifically of female education. Moreover, the private sector is playing an important role at the primary

level of education and in private sector majority of the teachers are female teachers [Ali and Khan 2002]. The possible explanations of low improvement in gender disparity in teachers may be as: a significant number of girl schools remained without teachers and the public sector "maktab" schools at the under-primary level of education have male teachers and there is co-education in these schools. The lower number of female teachers may be due to the factors as: in the rural areas primary schools are scattered at far flung areas; non-availability of rural female teachers in rural areas; the urban teachers are unwilling to go for job in rural areas; rural areas have no incentives for urban teacher's stay there; job further diminished with travel cost; low security in rural areas for female teachers; low infra-structure of schools in rural areas etc [see, Khan 1993; Warwick and Jatoi 1994].

The trend of gender disparity from primary to college level that is in the course of level of education shows that gender disparity in enrolment increases up to secondary level and then decreases at college level. The possible explanation of increase in gender disparity at middle and secondary level areas propensity for girls to drop out from school is high [Sattar 1993]. The low level of attendance at secondary level of education among girls is also an outcome of strict restriction on their movement out side the home after they reach puberty. The exacerbated gender gap at secondary level is also due to lack of physical facilities at girl's schools. The selective allocation of resources is another factor where girls might enter school but are not able to remain there for a long duration, presumably because their brothers get preferential treatment. The increasing gender disparity at middle and secondary level is explained by Strauss and Thoman [1995] as the households do not discriminate against all daughters, the older daughters bear a large portion of burden. Higher dropout rate of girls at primary level of education causes low enrolment at the middle and ultimately secondary level. High dropout rate indicates low quality of education, so low quality of education in another explanation of high gender disparity at middle and secondary level. Poverty also compels parents to remove children from school and they remove the females first. On the other hand, the reasons of lower gender disparity at college level are as: the college reaching children are mostly from comparatively better economic class of society where household gender disparity is less and the colleges are mostly situated in the urban areas where social discrimination against female offspring is comparatively less. Though, for the households the opportunity cost of boys and girls increases by age and level of education but the students of college come from the selected economic class of society where the barrier of opportunity cost is broken.

5. RECOMMENDATIONS

The non-discrimination principle is the key to combating gender discrimination. Schools must ensure that they are responsive to girl's needs in every possible way, from physical location to classroom curriculum and practices.

Female teachers are considered to be good teachers for children at primary level, so gender disparity of teachers at primary level needs more consideration [see also Kim et. al. 1998].

The government policy to stress on the girl's education at primary level should be expanded by including middle and secondary level.

The schools from Community Support Program (CSP) increased girls enrolment by an average of 22 percent in Balochistan and these schools have spillover benefits for boys as well [Kim et. al. 1998], so these programs should be expanded in whole of the country to narrow the disparity.

The quality of education in the form of qualified teachers, relevant education, good physical infrastructure of schools and low cost schooling (for decreasing the opportunity cost of education), good student-teacher ratio, enhanced time on task, etc. are needed.

REFERENCES

Alderman, H., J. Behrman., D. Ross and R. Sabot 1996, "Decomposing the Gender Gap in Cognitive Skills in a Poor Rural Economy" *Journal of Human Resources 32(1)*.

Alderman, H., J. Behrman., S. Khan.; D.R. Ross and R. Sabot 1995, "Public Schooling Expenditures in Rural Pakistan: Efficiently Targeting Girls in Lagging Region" in D. Van de Walle and K. Mead (eds) *Public Spending and the Poor: Theory and Evidence. World Bank, Washington, D.C.*

Ali, Karamat and Rana Ejaz Ali Khan 2002, "Private Schooling-Quality Puzzle". *Lahore Journal of Economics (Forthcoming)*.

Behrman, J. and R. Schneider 1993, "An International Perspective on Pakistani Human Capital Investment in the Last Quarter Century" *Pakistan Development Review 32(1)*.

Chaudhary, N.P. and A. Chaudhary 1989, "Incentives for Rural Female Studies in Pakistan" BRIDGES Project, Harvard Institute of International Development and the Academy of Educational Planning and Management, Ministry of Education, Pakistan. (Processed)

FBS 1999, "Pakistan Integrated Household Survey 1998-1999" Federal Bureau of Statistics, Government of Pakistan, Islamabad.

FBS 2000, "Statistical Year Book 2000" Federal Bureau of Statistics (FBS), Statistical Division, Government of Pakistan, Islamabad.

GOP 1998, "Economic Survey 1997-98" Finance Division, Economic Advisor's Wing, Government of Pakistan, Islamabad.

GOP 2001, "Economic Survey 2000-2001" Economic Advisor's Wing, Finance Division, Government of Pakistan, Islamabad.

Hill, M.A. and E.M. King 1995, "Women's Education and Economic Well-being" *Feminist Economics 1(2)*.

Jones, Gavin W. 2000, "Human Resources, Poverty and Regional Development" *Pakistan Development Review 39(4)*.

Khan, Shahrukh Rafi 1993, "Women's Education in Developing Countries: South Asia" in E.M. King and Anne M. Hill (eds) Women's Education in Developing Countries: Barriers, Benefits and Policies. John Hopkin University Press, Baltimore for World Bank.

Kim, J., H. Alderman and P. Orazem 1998, "Can Cultural Barriers be Overcome in Girls Schooling? Community Support Program in Rural Balochistan" *Working Paper Series on Impact Evaluation of Education Reforms. Paper No.10.* The World Bank, Washington, D.C.

King, E.M. and A.M. Hill (eds) 1993, "Women's Education in Developing Countries: Barriers, Benefits and Policies" John Hopkin University Press, Baltimore for World Bank.

Malik, Sohail J. and H. Nazli 1999, "Population, Employment, and the State of Human Resources" in Shahrukh Rafi Khan (ed) 1999 Fifty Years of Pakistan's Economy: Traditional Topics and Contemporary Concerns. Oxford University Press, Karachi.

Ranis, Gustav., Frances Stewart and Aljandro Ramirez 2000, "Economic Growth and Human Development" *World Development 28(2).*

Ray, Ranjan 2001, "Simultaneous Analysis of Child Labor and Schooling: Comparative Evidence from Nepal and Pakistan" School of Economics, University of Tasmania.

Sathar, Zeba A. 1993, "Micro-Consequences of High Fertility: The Case of Child Schooling in Rural Pakistan" in Cynthia B. Lloyd (ed) Fertility, Family Size and Structure: Consequences for Families and Children (Proceedings of Population Council Seminar) The Population Council, New York.

Sawada, Y. 1997, "Human Capital Investment in Pakistan: Implications of Micro Evidence from Rural Households" *Pakistan Development Review 36(4).*

Sawada, Y. and M. Lokshin 2000, "Household Schooling Decisions in Rural Pakistan" Study conducted by Japanese Ministry of Education, The Foundation for Advance Studies on International Development, and Matsushita International Foundation, Japan.

Schultz, T. Paul 1993, "Return to Women's Education" in E.M. King and M.A. Hill (eds) Women's Education in Developing Countries: Barriers, Benefits and Policies. John Hopkin University Press, Baltimore.

Shah, Nasra M. 1986, "Pakistani Women: A Socioeconomic and Demographic Profile" Pakistan Institute of Development Economics and East West Population Institute of East West Center, Honolulu.

Strauss, J. and D. Thoman 1995, "Human Resources: Empirical Modeling of Household and Family Decision" in J. Behrman and T.N. Srinivasan (eds) Handbook of Development Economics. Vol.3A. Elsevier Science Ltd, North Holland.

Summers, Lawrence 1992, "Educating All the Children" *Policy Research Working Papers Series,* World Bank, Washington, D.C.

Thomas, D. 1990, "Intra-household Resource Allocation: An Inferential Approach" *Journal of Human Resources 25(4).*

UNICEF 1999, "State of the World's Children 1999" Oxford University Press, Oxford.

Warwick, D.P. and H. Jatoi 1994, "Teacher's Gender and Student Achievement in Pakistan" *Comparative Education Review 38(3).*

ANNEXURE

Table No.1A
Enrolment and F/M Ratio by Level of Education and Sex

YEAR	MALE [000]	FEMALE [000]	F/M RATIO	MALE [000]	FEMALE [000]	F/M RATIO
		PRIMARY			MIDDLE	
1990-91	7162	3675	0.47	1979	842	0.42
1991-92	7022	3714	0.52	2123	858	0.40
1992-93	8138	4596	0.56	2046	994	0.48
1993-94	8233	5055	0.61	2182	1123	0.51
1994-95	8626	5638	0.65	2469	1347	0.54
1995-96	8825	5702	0.64	2335	1270	0.54
1996-97	9239	6156	0.66	2369	1357	0.57
1997-98	1006	6997	0.67	2500	1532	0.61
1998-99*	10893	7838	0.71	2631	1707	0.64
1999-2000*	11720	8679	0.74	2762	1882	0.68
1990-2000			0.63			0.53

Source: FBS 2000 Statistical Year Book 2000.
*Economic Survey 2000-2001
Ratios are calculated by authors.

Table No.1B
Enrolment and F/M Ratio by Level of Education and Sex

YEAR	MALE [000]	FEMALE [000]	F/M RATIO	MALE [000]	FEMALE [000]	F/M RATIO
		SECONDARY			COLLEGE	
1990-91	790	304	0.40	419	211	0.50
1991-92	843	316	0.38	447	323	0.52
1992-93	880	381	0.44	452	251	0.55
1993-94	960	349	0.47	426	249	0.58
1994-95	1082	529	0.51	428	276	0.64
1995-96	1036	494	0.50	435	299	0.68
1996-97	1075	535	0.52	443	319	0.72
1997-98	1141	623	0.57	461	335	0.73
1998-99*	1099	696	0.63	435	356	0.81
1999-2000*	1175	775	0.66	435	356	0.81
1990-2000			0.50			0.65

Source: FBS 2000 Statistical Year Book 2000.
* Economic Survey 2000-2001
Ratios are calculated by authors.

Table No.2A
Teachers and F/M Ratio by Level of Education and Sex

YEAR	MALE [000]	FEMALE [000]	F/M RATIO	MALE [000]	FEMALE [000]	F/M RATIO
	PRIMARY			MIDDLE		
1990-91	185.1	92.7	0.50	52.1	32.0	0.61
1991-92	19s8.6	94.9	0.47	53.8	33.7	0.62
1992-93	202.7	96.3	0.47	40.0	31.8	0.79
1993-94	212.4	109.6	0.51	40.5	39.9	0.98
1994-95	219.5	114.5	0.52	48.0	38.4	0.80
1995-96	221.7	109.3	0.49	56.5	37.8	0.66
1996-97	211.0	112.0	0.53	46.0	39.0	0.84
1997-98	219.0	121.0	0.55	46.0	43.0	0.93
1998-99*	227,7	129.2	0.56	48.8	46.5	1.01
1999-2000*	236	137.9	0.58	45.8	50.3	1.09
1990-2000			0.50			0.77

Source: FBS 2000 Statistical Year Book 2000.
* Economic Survey 2000-2001
Ratios are calculated by authors.

Table No.2B
Teachers and F/M Ratio by Level of Education and Sex

YEAR	MALE [000]	FEMALE [000]	F/M RATIO	MALE	FEMALE	F/M RATIO
	SECONDARY			COLLEGE		
1990-91	113.4	46.5	0.41	13515	7277	0.53
1991-92	115.4	48.3	0.41	13101	7447	0.56
1992-93	91.9	40.8	0.44	13028	7644	0.58
1993-94	121.9	56.9	0.46	13940	7945	0.56
1994-95	115.3	67.4	0.58	14662	8159	0.55
1995-96	116.4	50.6	0.43	15781	9142	0.57
1996-97	113.2	54.8	0.48	15723	9151	0.58
1997-98	124.7	63.9	0.51	17063	10266	0.60
1998-99*	131.6	71.3	0.54	16595	10347	0.62
1999-2000*	143.6	80.4	0.55	16595	10347	0.62
1990-2000			0.46			0.56

Source: FBS 2000 Statistical Year Book 2000.
*Economic Survey 2000-2001
Ratios are calculated by authors.

Table No.3A
Educational Institutions and F/M Ratio by Level of Education and Sex

YEAR	MALE	FEMALE	F/M RATIO	MALE	FEMALE	F/M RATIO
	PRIMARY			MIDDLE		
1990-91	83018	31124	0.47	5315	3446	0.64
1991-92	80688	31591	0.39	5404	3537	0.65
1992-93	92516	38080	0.41	6753	5055	0.74
1993-94	94063	39957	0.42	6932	5194	0.74
1994-95	97667	41967	0.42	7009	5562	0.79
1995-96	99696	43434	0.43	7611	5719	0.75
1996-97	107619	42042	0.39	8727	5760	0.66
1997-98	105114	51204	0.48	10186	7168	0.70
1998-99*	102800	56500	0.54	10000	8000	0.80
1999-2000*	104900	57600	0.54	10300	8100	0.78
1990-2000			0.42			0.70

Source: FBS 2000 Statistical Year Book 2000.
* Economic Survey 2000-2001
Ratios are calculated by authors.

Table No.3B
Educational Institutions and F/M Ratio by Level of Education and Sex

YEAR	MALE	FEMALE	F/M RATIO	MALE	FEMALE	F/M RATIO
	SECONDARY			COLLEGE		
1990-91	6540	2395	0.36	390	222	0.56
1991-92	6608	2374	0.35	400	233	0.58
1992-93	6297	3029	0.48	406	243	0.59
1993-94	6513	3142	0.48	403	248	0.61
1994-95	6682	3323	0.49	421	257	0.61
1995-96	6710	3329	0.49	439	276	0.62
1996-97	6965	3394	0.48	450	287	0.63
1997-98	7591	4019	0.52	480	309	0.64
1998-99*	7800	4500	0.57	509	344	0.67
1999-2000*	8000	4600	0.57	509	344	0.67
1990-2000			0.45			0.60

Source: FBS 2000 Statistical Year Book 2000.
* Economic Survey 2000-2001
Ratios are calculated by authors.

BOOK REVIEW:

Economic Factors in the Making of Pakistan 1921-1947. By Naureen Talha
Published by Oxford University Press Karachi, Pakistan 2000.
pp 220. Price Not Mentioned.

The author, Ms.Naureen Talha has a doctorate degree in Pakistan Studies from the Quaid-e-Azam University. The book is the doctoral thesis that earned the author her Ph.D.

Advances have been made in the field of economics and it is no recent trait of merging economics with other subjects to tackle various issues. The author combines the empirical implications of economics with the 'facts of Pakistan Studies in this book. The Partition of the sub-continent is a hackneyed issue and much has been said about it. Authors have discussed the political, social, religious and philosophical factors that led to the partition in detail and depth. On the contrary the quite voice of Naureen Talha provides an even more compelling though mundane reasoning for the split. She emphasizes on economics as the prime mover. The approach of the author to a major issue in the history of the sub continent is a refreshing one and stands out as different and distinct from the previously adopted ones.

The book comprises seven cohesive chapters that seek to trace the economic reasoning behind the partition. Each chapter brings with it an interesting issue, adequately supported with sound arguments and empirical evidence in the form of statistical data.

The book under discussion can be divided into four categories according to time. The first period spans from 1857 to 1921. The second covers the period 1921-1935, the third encompasses the period 1935-1940, whereas the fourth period ranges form 1940 to the year of independence 1947. The main focus of the book is the period 1921-1947, as suggested by the title of the book.

The first chapter of the book is titled "The Economic Conditions of the Muslims (1857-1921)". The chapter takes a ride down the history lane to the times when the Muslims were economically sound and then moves to the time in the after math of the 1857 Independence War, when Muslims became engulfed in economic misery. The author asserts that the deploring economic conditions were not a recent scenario but were well known to the scholars even in the 18th century. The chapter provides a study of the economic backwardness that the Muslims faced during the time 1857-1921.

After the 1857 war, Muslims were further thrown into the pit of economic misery due to the unfavorable British attitude and their own ignorance towards education. The author uses appropriate figures and facts to justify her claims and deptic the Muslim downfall.

The succeeding chapter, "Efforts to Achieve Economic Security (1921-1935)," highlights the efforts of the Muslims in a bid to achieve the much lacking economic security. The role of Muslim League and prominent Muslim leaders is discussed comprehensively. The chapter traces the various efforts made in order

to improve Muslims representation and participation in services. The Muslim representation in the areas of Punjab, Madras, Central Provinces, United Provinces, NWFP, Bombay and Bengal has been highlighted as well. The author lays great emphasis on the economic aspect and provides the assertion that Muslims were working politically and socially for a better economic future.

The third chapter, "Muslim Reaction to Hindu Dominance in Trade and Industry." The Hindus and the Parsis were the two communities who had seized upon the opportunities with both their hands and had made great leaps in trade and industry. The Hindus especially got a stranglehold on the Trade and Industry. The Muslims were lagging far behind. The Hindu dominance was not confined to only the Hindu majority areas but was also predominant in the Muslim majority areas. The Muslims were greatly moved by this astounding fact and a sense of realization irked in them, thanks mainly to the efforts of their leaders and the Muslim league. The Muslims united as a unit in order to address the issue. The chapter sheds light on the issue and provides an in depth analysis.

The fourth chapter of the book, "Growing Economic Insecurity (1935-1940)," states that the economic problems of the Muslims remained unresolved and there was growing economic insecurity among the Muslim masses. During this period, the hostile attitude of the congress became quite evident and the Muslims were being suppressed. There seemed to be a longing among the Muslims for an economic identity by this time. The author asserts that the Muslims had realized that the economic conditions were going against them and they could not be improved unless and until they got rid of the Hindu dominance. Ms Talha proclaims that it was the positive response of the educated Muslim class to the call of the Muslim League, towards economic freedom, that strengthened the cause for Pakistan.

The next chapter, "Towards Economic Independence (1940-1947)," analyses the Muslim journey towards economic freedom and the realization of the dream of a separate Muslim state. The events in light of the 1940 Lahore Resolution have been discussed and their significance in achieving the goal has been highlighted. The growing Muslim support and the improvements in their representation and participation has been accented as well.

The sixth chapter of the book, "Debate on the Economic Viability of Pakistan," clarifies that Pakistan was very much an economically viable country as opposed to the opinions of the critics. The author argues that Pakistan had huge Economic potential economically and supports it with the statements of A.R.Khan, K.H.Khurshid and Syed Abdul Latif. The author openly condemns the supposition of the British and the Hindus that Pakistan was not an economically viable state and the whole supposition was a mere drama. The author argues competently and certainly influences the reader.

The seventh chapter of the book, "Summary and Conclusions," is incidentally the last chapter of the fabulous book. As suggested by the title of the chapter, the author summarizes the main ideas and assertions presented in her dissertation. The author concludes that it was the economic awareness among the Muslims that furthered their ultimate cause and led to the creation of Pakistan. Much like the rest of the book, the author supports her implications with

rationality. The book is pedantic in nature and is a great contribution in the field of research.

The book is an interesting, bold and an innovative approach in the much confined circles of Pakistan Studies and touches the formerly untouched boundaries in the concerned field. The book being a doctorate thesis rather than a pure textbook lacks in appeal at times. Although, the writer has cleverly combined the elements of Pakistan Studies with Economics, yet the dryness of Pakistan Studies surfaces as a flaw and a hindrance to the interest of the reader.

The book is quite refreshing and is a must for the intellectuals, the students, and all the avid readers. Ms Talha has come up with a treat for the patriots of Pakistan.

Abeer Azmat
Lahore University of Management Sciences

Waleed Mohsin
Lahore School of Economics

GCU ECONOMIC JOURNAL
Instructions to the Contributors

I.

   (a)   One hard copy and one soft copy on 3.5" floppy disk of each manuscript must be submitted. Carbons will be accepted for second copy only.

   (b)   All manuscripts must be double-spaced (text, notes, tables, etc.)

   (c)   Allow right and left hand margins of 1½ inches each.

   (d)   Manuscripts will not be returned.

II.

   (a)   The title should be at least 2 inches from the top of the paper.

   (b)   Allow 1-inch space, and on a separate line, type the name (s) of author(s).

   (c)   Do not use all capital letters.

III.

   (a)   Notes to each article will appear in a separate section. "Notes", at the end of the article.

   (b)   The first note will be 'acknowledgement' or explanatory note, if any, indicated by an asterik (*), to the article title.

   (c)   The note numbers will be in parenthesis.

   (d)   Example ---------- in that case (3).

   (e)   Each note should be a separate single paragraph.

IV.

   (a)   All reference should be listed in the alphabetical order of the author(s) names at the end of the text. References in the text should include name(s) as well as the year of publication.

        Example:

        (1)   Debreu,G. (1951), "The Coefficient of Resource Utilization" , *Econometrica,* 19(3): 273-92.

        (2)   Greene, W.H. (1990), "Econometric Analysis", Macmillan Publishing Company, New York, USA.

   (b)   In a subsequent reference to a work, repeat the author's last name.

V.

   (a)   Any mathematical equation in the text should be separated from the text with at least 1-inch margin up and below.

   (b)   Each table should be printed on a separate page. Each table should be numbered and referred to in order in the text.

   (c)   Each figure (illustration) should be on a separate sheet of paper, and should follow the tables.