

FINANCING OF ISLAMIC BANKS IN AGRICULTURE SECTOR OF PAKISTAN

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**University of Management and
Technology**



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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FINANCING OF ISLAMIC BANKS IN AGRICULTURE SECTOR OF PAKISTAN

Asim Shahzad

**A thesis submitted in partial fulfillment of the requirements for the
MS degree in Islamic Banking and Finance**



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Technology**



**Institute of
Islamic Banking**

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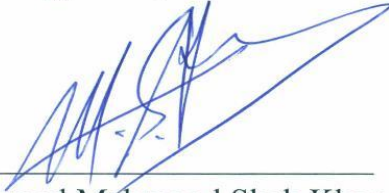
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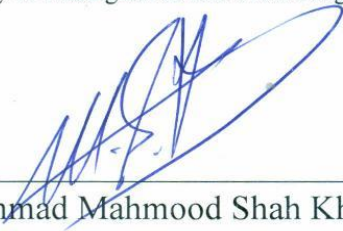
CERTIFICATE OF APPROVAL

The thesis entitled <<MARKET POTENTIAL OF ISLAMIC BANKS IN AGRICULTURE BUSINESS>> has been accepted in partial fulfillment of the requirements for the degree of MS in Islamic Banking and Finance by the Institute of Islamic Banking, University of Management and Technology, Lahore, Pakistan.



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DECLARATION

I hereby declare that no portion of the work that appears in this study has been used in support of an application for another degree in qualification to this or any other University or institution of higher learning.

This thesis is a presentation of my original research work. Wherever contributions of others are involved, every effort has been made to indicate this clearly, with due reference to the literature and acknowledgement of collaborative research and discussions.

The work was done under the guidance of Mr. Muhammad Mahmood Shah Khan, Director, Institute of Islamic Banking, UMT, Lahore, Pakistan.

Asim Shahzad

Date: _____

In my capacity as supervisor of the candidate's thesis, I certify that the above statements are true to the best of my knowledge.

Muhammad Mahmood Shah Khan

Date: _____

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DEDICATION

This thesis is dedicated to my parents and supervisor for their love, endless support and encouragement throughout the course of this work.

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ABSTRACT

Agriculture is an important sector of any economy; country like Pakistan agriculture sector has leading position in the growth of economy. Agricultural mechanism boosts up the GDP growth rate and revolutionizes the frame of Pakistan economy. This revolutionary epoch make role of financial sector most crucial to meet the need of the day. Pakistani agriculturists are much bounded to the religious traits than the industrial populace, and reluctant to utilize the financial facilities provided by the conventional banking. Islamic banking system in Pakistan has least contribution in the development of agri-business development. There is a need of short term loan financing to match the day to day or weekly expenses, purchase of raw material, medication arrangement and salaries of the staff members, as the agri business is mostly seasonal and thus it is quite difficult for the small farmers to manage their cash flows. On the other hand they are also in the need of long term financing to support their fixed assets vital for existence of the business

The study found that majority of the farmers and farm managers are not aware about the short term and long term financing by the Islamic banks. They are also of the opinion that not any Islamic bank is providing short term loan facility for the availability of loan for day to day working capital requirements and for medication purposes, which indicates the low awareness level among the people regarding the Islamic banking products in this sector, known as the backbone of the economy.

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CHAPTER # 01

INTRODUCTION

1.1 Background of Study

A firm primary objective is to earn profit and maximize wealth. Without making profit, the survival of the business is at stake in the economy. Therefore, it is very important to consider the current performance and profitability of the firm to make future profitability projections. How well the projections are depending upon the variables to be considered as determinants of performance and profitability study. A number of researches (Meyer and Kuh, 1957; Tybout, 1984; Myers, 1984; Hubbard, 1998) have been put forwarded in the past, where different types of internal and external variables as determinants of profitability have been considered.

Measurement of profitability in financial institutions has always been a great importance too, particularly in a banking sector. One of the major reasons for that, there is a stiff competition in the banking industry due to provided rules and regulations from the State Bank of Pakistan (SBP). Banking profitability envelops a wide-ranged model and understanding of how the balance and spread of a portfolio, the level of expenses incurred and losses on loans all interact to produce profit or loss for a bank.

In the last two decade, there is a tremendous addition to the conventional banking, that is, Islamic Banking within the world. The introduction of Islamic Banking has incredibly changed the view point of both Conventional and Islamic economists and the predictions are there that the products being offered by this new financial system are among the most increasingly used in the upcoming years. In today's era, Islamic Banks are functional in almost all regions of the world. These Islamic Banks considered being the safest, feasible and practical substitute of the so called conventional banking system (Bader et al., 2008). The term Islamic banking refers to a banking activity or a system of banking that is in consonance with the basic principles of Islamic Shraiah

(rules and values set by Islam). A business that offers good interest rates or services is strictly prohibited and considered Haraam (forbidden).

1.2 Agriculture Sector of Pakistan

Pakistan has wealthy, prosperous and enormous natural reserves, covering various ecological and climatic zones; hence the country has great potential for producing all types of food commodities. Agriculture has an important direct and indirect role in generating economic growth. The importance of agriculture to the economy is seen in three ways: first, it provides food to consumers and fibers for domestic industry; second, it is a source of scarce foreign exchange earnings; and third, it provides a market for industrial goods. Agriculture sector currently contributing almost 22% to the Gross Domestic Product (GDP) of Pakistan, generating employment opportunities for 46% of the Pakistan labor force and above 60% of the Pakistan rural population depends on agri-business for living (Pakistan Economic Survey, 2012-13). The total geographical area of Pakistan is 79.6 million hectares. About 27 percent of the area is currently under cultivation. Of this area, 80 percent is irrigated. In this regard, Pakistan has one of the highest proportions of irrigated cropped area in the world (Pakistan Economic Survey, 2012-13).

1.3 Banks Role in Agricultural Credit Financing

In Pakistan, any type of bank is allowed to provide agricultural financing to the agri-businessman or farmers; either it is commercial bank, Islamic bank or specialized banks. The central bank of Pakistan does not hold any restriction in providing agricultural financing to these banks. However, proper documentation, rules and regulations provided by SBP should be followed by both the parties. Any individual (farmers or fishermen), corporate firms, cooperative

societies undertaking livestock related activities must have the relevant experience and sufficient knowledge are entitled to draw agricultural credit from the banks.

The financing provided by the banks could be for complete value chain of activities such as crop loans (seed and pesticides etc.), development loans (tractors, equipments and tube wells), marketing, storage, processing of crops, polishing, transportation and exports of agricultural goods. Financing facility can also be avail by non-farm sector such as floriculture, poultry, horticulture, livestock, forestry, dairy farming and fisheries, etc. However, the financing for the fruits/crops procurement has no provision under the eligible items list of agricultural credit regulations of the SBP.

Currently, the banking sector of Pakistan providing three types of loans - short-term loans for the period of up to 1.5 years, medium-term loans fall in range from 1.5 years to 5 years and long-term loans for maximum of 7 years. The short term loans used for fulfilling the day to day working requirements; whereas medium and long-term loans help in meeting the developmental requirements of the farmers and corporate firms such as development of land, purchase of agricultural machinery.

The guidelines issued by SBP on different financing schemes and other instructions issued to banks are communicated with the instructions to send the same to all concerned branches. In addition to this, SBP has published brochures about different loan schemes which were translated into Urdu and regional languages and distributed among stakeholders of rural branches of banks. Moreover, special outreach and training programs organized in collaboration with banks create awareness among the farming/rural community of agri-financing facilities they can access.

Indicators	2009-10	2010-11	2011-12	2012-13	2013-14
Growth Rate of Agriculture (%)	2.00	2.38	3.60	2.90	2.10
Contribution to GDP (%)	21.55	20.91	21.02	21.40	21.04
Important crops Growth rate (%)	-3.70	1.50	7.90	1.20	3.70
Other crops Growth rate (%)	-7.20	2.30	-7.50	6.10	-3.50
Total Cropped Area (Mln. Hectares)	23.80	22.80	22.50	22.80	22.80
Wheat Production (Mln. Tonnes)	23.30	25.20	23.50	24.20	25.30
Rice Production (Mln. Tonnes)	6.90	4.80	6.20	5.50	6.80
Sugarcane Production (Mln. Tonnes)	49.40	55.30	58.00	63.80	66.50
Cotton Production (Mln. Bales)	12.90	11.50	13.60	13.00	12.80
Gram production (000.Tonnes)	-	496	291	751	475
Maize production (000.Tonnes)	-	3707	4271	4220	4527
Fertilizer Off-take (Mln. N/Tonnes)	4.40	3.90	3.90	3.60	3.30
Credit disbursed to Agriculture Sector (Bln.Rs.)	248.10	263.00	293.90	336.20	255.70
Credit disbursed to Agri. Sector by ZTBL (Rs. Bln)	-	37.40	37.90	38.00	45.90
Labour force employed (%)	45.70	45.00	45.00	45.00	43.70
Growth Rate of Livestock (%)	4.10	3.97	4.04	3.50	2.90
Growth Rate of Forests (%)	2.20	-0.40	1.80	1.00	1.50
Forest Area (as % of total area)	4.21	5.11	5.17	5.20	5.20
Land for Wild Life (as % of total area)	-	11.30	11.30	11.50	11.60

(Source: Pakistan Economic Budget 2009-14)

1.4 Research Questions

Currently, five full fledged Islamic banks are working in Pakistan banking industry and their share as compare to the conventional banks is increasing day by day. Though, the Islamic banking has become successful in getting higher growth rate in Pakistan so far but it still could not get the required pace to justify its presence as an alternative to conventional banking. For this, there are numerous reasons and among those, one of the major reasons is not to cater the major sectors of the economy. This study has been conducted to know “*What is the potential of Islamic banking sector for financing in agricultural sector of Pakistan?*”

1.5 Research Objectives

- To identify the areas where long-term financing is needed in agriculture sector
- To identify the areas where short-term financing is needed in agriculture sector
- To check the level of familiarization with Islamic banking in agriculture sector
- To find out the modes of financing agriculture sector prefers to avail

1.6 Significance of the Study

In the past various researchers conducted the studies to identify the determinants of profitability in different firms and particularly in banking industry, which ultimately, became the reason for good profitability in banking. Therefore by conducting this study, the potential determinants of “Islamic Banking” are identified which have not been explored earlier and should bring further improvement in those areas.

1.7 Sequence of Study

The thesis is comprised of five chapters. The first chapter covers the brief overview of the study and the agriculture sector of Pakistan. The chapter also provides the reason and significance for conducting the study. In the second chapter, under the heading of the literature review the various previous studies are put forwarded in a sequential order. From the history of the concept to the current understanding of the phenomenon are all discussed under this heading. This part is concluded by showing the gap in literature, and the importance of the conduction of this particular study.

The chapter 3 describes all the theoretical and technical foundations. It covers the whole study design, sample selection, demographics of the respondents. It explains the ethical issues, which are considered in this study. In the last, it describes the methodology of data collection and

applying statistical tools on the data for analysis. Chapter 4 covers the results and findings of the study. To evaluate the significance of each item in the questionnaire the t-test, the one way ANOVA test and Independent Sample t-test are applied. Conclusion and recommendations are presented in the last chapter. And finally, the thesis is furnished with the references of the various studies mentioned in this thesis.

CHAPTER # 02

LITERATURE REVIEW

Financial markets are solely concerned with the valuation and pricing of financial contracts. These markets are not like ordinary markets for conventional goods and services. These financial contracts can be viewed as the exchange of cash in the present for a promise of future reciprocity. According to Belongia (1986), the financial profitability and performance of conventional as well Islamic banks tends to mirror that of the farm sector because loan demand typically rises with farm income (as do bank profits). But when the agriculture sector experiences downturns, a bank tends to experience sharp increases in nonperforming loans.

Financial markets create value through loans, which entail an exchange of current cash for a promise to pay cash in the nearby future. The promise is often supplemented with additional restrictions and covenants, which determine the rights and behavior of the parties. The borrower, however, sometimes breaks the promise. Recognition of this state of imperfect information causes lenders to screen different loan applications to determine who is more likely to repay (Von Pischke, 1991; Dowd, 1992). As a result of these informational imperfections, credit markets often do not seem to function well for the agriculture sector as majority of the farmers have low amount or no extra collaterals to kept for taking financing. They are often characterized by credit rationing, that is, farmers in some regions time periods may have only limited or no access to credit, even if they propose 'good' investments to the financial institutions.

Access to external financial resources has been severely constrained in Pakistan agriculture sector during transition. This is due to the standard problems of imperfect and costly information encountered in financial markets. These transition-specific problems concern the role of credit in the economic system, institutional reforms occurring within the financial system,

low enterprise profitability in agriculture, accumulated debts, high inflation, risk and uncertainty, and collateral problems (Swinnen, 1999).

Related to these problems of asymmetric information is the importance of the borrower's initial net worth in determining the size of investment and contractual instruments that will prevail in the market (Stiglitz, 1993). Changes in the levels of internal financial resources can have important allocative efficiency effects on investment, especially in high information cost situations (Meyer and Kuh, 1957; Tybout, 1984; Myers, 1984). This is because firms that place their wealth at risk when asymmetric information conditions are present increase the lender's confidence in their abilities and efforts, thereby lowering the cost of external finance and reducing the amount of external financing required (Hubbard, 1998).

2.1 Growth of Agriculture Sector in Pakistan

Despite the speedy growth in the other sectors, agriculture is still the single largest sector contributing nearly 22% to Pakistan GDP (Government of Pakistan, 2012). Given its importance to national economy, almost all governments gave high priority to raise agricultural productivity and hence farmer's income. Three main factors that contribute to agricultural growth are the increased use of agricultural inputs, technological change and technical efficiency. Higher use and better mix of these inputs also requires funds at the disposal of farmers. These funds could come either from farmers' own savings or through borrowings. Agriculture financing plays a major role in economy development (Zuberi et al., 1991). In less developed countries like Pakistan where savings are negligible especially among the small farmers, agricultural financing appears to be an essential input along with modern technology for higher productivity.

Credit requirements of the farming sector have increased rapidly over the past few decades resulting from the rise in use of fertilizer, biocides, improved seeds and mechanization,

and hike in their prices. In order to obtain the credit facility from the banks, collateral plays an important role in a farmer's ability to secure external financial resources. Financial institutions use the pledging of assets (collateral) as a strategy to screen a client's creditworthiness and reduce default risk, as farmers who do not expect to repay the loan will be unwilling to provide personal capital or collateral to support the loan (Rizov, 1996; Szabo, 1997).

2.2 Credit Financing of Agriculture Sector in Pakistan

Agriculture as a sector depends more on financing than any other sector of the economy because of the seasonal variations in the farmers returns and a changing trend from subsistence to commercial farming (Vogt, 1978). Under Agriculturists Loan Act of 1958 (ALA), credit is provided for relief of distress and for purchasing seed, fertilizer, cattle and implements (Yusuf, 1984). The importance of credit availability can be seen by the fact that mean input expenditures per hectare are significantly higher for farmers with credit, regardless of their level of assets.

The agricultural financing system of Pakistan consists of informal and formal sources of credit supply. The informal sources include friends, relatives, traders and private money lenders. Presently, the formal credit sources are comprised of financial institutions like ZTBL, Commercial Banks, Federal Bank for Cooperatives and non-governmental organizations (NGO's). Recently, some Islamic Banks are also advancing agricultural credit to the rural communities. Federal Bank of Cooperatives provides production loans while ZTBL, Islamic and commercial banks advance both production and development loans. The State Bank of Pakistan performs a vital role in the development of agricultural credit delivery system.

2.3 Role of Financial Firms in Credit Financing of Agriculture Sector

ZTBL is the leading source of institutional agricultural financing in the Pakistan. ZTBL mainly borrows from the central bank of Pakistan and few special program are funded by World Bank, the Asian Development Bank (ADB), and the International Fund for Agricultural Development (IFAD). However, the commercial banks are the other important formal source of agricultural financing in Pakistan. Prior to the Banking Reform of 1972, the financing was limited to agricultural marketing with produce as collateral for the loans (Qureshi and Shah, 1992). Under the 1972 reforms, commercial banks were required to broaden the scope of lending to finance modern farm inputs and investments.

In the last decades, Islamic banks have grown in size and number around the world. Islamic banks operate in over sixty countries, most of them in the Middle East and Asia. In Pakistan, the conventional banking system has been in a phase of converting in to Islamic banking system. Even so, Islamic banking is the fastest growing segment of the credit market in Muslim countries that have Islamic banks with annual growth rate of 12%. Even conventional commercial banks have started to offer Shariah complaint modes of financing.

According to Schmith (2007), the growth of Islamic financial industry is high within the Muslim world because they need an alternative to riba based banking. Islamic banks are planning to capture 10% of the total financial market in the next three years. The target may not be met without agriculture financing. Agriculture credit through proper channels caters to a small number of farmers against the potential rural clients estimated at 5.44 million. There are vast untapped opportunities for Islamic banks which are presently focusing more on consumer and corporate financing.

The growth of an economy has very close relation with the growth of banking industry (Zaidi, 2005). Conventional Banking is interest based which is strongly prohibited in Islam. However, Muslims require a financial system which fulfills their financial needs according to Sharia. Islamic banking is a way to fulfill their financial requirements according to Islamic law. Meezan Bank was the first Islamic bank in Pakistan to provide Shariah-compliant Agricultural financing by extending a Shariah-compliant financing facility in the agriculturally rich Central region of Pakistan.

2.4 Determinants of Profitability of Financial Firms

The determinants of the profitability of firms and particularly financial firms have been frequently addressed by the researchers throughout the world. Haslem (1969) used 64 operating ratios in order to measure the effects of management, size, location and time on profitability of commercial banks. Haslem's findings indicated that all variables tested were significantly related to profitability. Fraser and Rose (1971) found that loan rate, time deposit rate, loan-to-deposit ratio, service charges and portfolio selection had no effect on profitability. Fraser et al. (1974) considered operating costs, deposit and loan compositions as factors within the control of management. They Creating Dynamic Leaders found that the factor which had the biggest influence on bank performance is bank cost followed by bank's deposit and loan composition. Heggsted (1977) found that banks heavily committed to time and savings deposits earned considerably lower returns than banks which have higher dependence on demand deposits. Mullineaux (1978) used a profit-function approach in his study and found that balance sheet structure had a significant impact on profitability and, depending on the nature of the balance sheet items; the relationship can either be negative or positive. Kwast and Rose's (1982) study, however, claimed that operating efficiency had nothing to do with profitability. They found that

there was no compelling evidence that high-profit banks were characterized by a greater level of efficiency than low-profit banks. With regards to deposit structure, Smirlock (1985) confirmed that demand deposits were a cheaper source of funds and had a positive impact on bank profits. Bourke (1989) was the first researcher to include internal variables in a profitability study involving cross-country data. The internal variables used were capital ratios, liquidity ratios and staff expenses; whilst the dependent variables were comprised of the net profit before taxes against total capital ratio and net profit before taxes against total assets ratio. Bourke reported that all internal variables were positively related to profitability. Molyneux and Thornton (1992) duplicated Bourke's study using all European banks as their sample and found similar results.

Stienherr and Huveneers (1994) studied the performance of banks in the US, UK, Western Europe and Japan. They concluded that overhead expenditure was positively correlated significantly with profitability. Similarly, investment in equity was positively correlated in certain samples but had an adverse relationship with others. The impact of institutional credit on agricultural production in Pakistan has been found to be positive and significant (Iqbal et al., 2005).

Hassan and Bashir (2004) has the topic under study was bank characteristics and the overall financial environment affect the performance of Islamic banks and concluded from it that the Islamic banks' profitability measures respond positively to the increases in capital and negatively to loan ratios. Haron (2004) studied the internal factors such as liquidity, total expenditures, funds invested in Islamic securities, and the percentage of the profit-sharing ratio between the bank and the borrower of funds are highly correlated with the level of total income received by the Islamic banks.

Bader et al. (2008) found that conventional banks are performing well in revenue generating and providing cost effective operations than Islamic banks, which solely working better in profit efficiency. This study finding is completely parallel to the finding of the research work of Johnes (2008). Islamic banks are insures more stable financial sector than the conventional banks (Khan & Bhatti, 2008). In Iran there is another study which shows mixed result both in favor of Islamic bank and in conventional banks that they both support and stabilized monitory system (Yousefi et al., 1997).

Sufian (2007) that influence non-commercial bank financial institutions (NCBFIs) profitability in a developing economy and concluded that NCBFI with a high loans intensity and credit risk tend to exhibit lower profitability level. On the other hand, large and more diversified NCBFI with high operational expenses and level of capitalization tend to exhibit higher profitability level. Awan (2009) is of the opinion that in Pakistan the conventional banking system is not performing well when compared to Islamic banks. In his research from 2006 to 2008 on Pakistan Islamic banking sector, he found 100% increment in market share of Islamic banking institutions from 2.5 % to 5 %. He raised the point that in coming years the major challenge for Islamic banks is to compete with conventional banks as SBP has granted permission to them to open Islamic branches and windows in parallel. The customers are more pleased with the performance and efficiency of conventional banks comparatively to Islamic banks (Khattak & Kashif Ur, 2010). Tan and Floros (2012) examines the effects of inflation on bank profitability in China and reach at conclusion of positive relationship between bank profitability, cost efficiency, banking sector development, stock market development and inflation in China.

2.5 Modes of Financing in Islamic Banking System

Islamic finance has the ability to cover all the farm size groups with their unique and comprehensive products (Iqbal, 2007). The importance of Islamic finance has compelled all the leading conventional banks to start Islamic banking windows. Islamic banking provides number of products/instrument (Wilson, 1991), which can deal with every nature of business (Adam and Ahmed, 2005). Islamic finance provides various products especially for agriculture sector. These products can be classified into following three modes as per the guidelines of State Bank of Pakistan.

- a) Trade based financing
- b) Rental based financing
- c) Participatory mode of financing

In Trade based financing, Islamic banks act as traders and provide goods/commodities to the clients on their demand. Murabaha, ways of financing under this mode. Ijarah operates under Rental based financing. In this mode, commodities are provided on lease. On the other hand, Participatory mode is operated by Musharaka, Diminishing Musharaka, Mudaraba, Musaqat and Muzara'a. In this mode, Islamic bank creates partnership among clients to run a business.

- a) **Musharaka:** It is a mode of financing in which two or more parties/partners join the business on the basis of profit and loss sharing. There are certain rules which partners have to fulfill under this mode. The terms and conditions and duration of business should be in written form before starting a business. Proportion of profit should be predetermined by mutual understanding of all parties. But the amount of profit can never be fixed. The proportion of profit may be greater or less than the proportion of

investment. In case of loss, both parties should bear loss according to proportion of their investment (SBP, 2010). Musharaka can play critical role in agriculture sector to enhance the production. This mode of finance can be used for project finance and term finance. In project finance, development of forest, big farms, fruit gardens and other mega projects are included. The term finance is used for development of farm buildings, equipments and machinery etc. Basically this mode of finance is for large and medium framers to develop their farms and run the projects.

- b) **Diminishing Musharaka:** It is basically branch of musharaka. In this mode of finance Islamic bank and farmer purchase joint property/goods, some investment is done by famer and other is done by Islamic bank. As farmer pay installment, the ownership ratio of farmer increases and rent become low. Gradually the farmer acquires full ownership of property/good. The ratio of rent decreases as ownership of bank declines. This mode of finance is usually used for buying new properties, equipments and machinery etc. This is very helpful for small farmer who cannot purchase machinery or equipments. They can opt for diminishing musharaka with bank to purchase required goods. Even in start, farmer can own only few percent of the good while the rest of the amount bank pays. This mode is equally favorable for medium and large farmers.

- c) **Mudarabah:** It is a participatory mode of finance. In this contract one party provide finance/assets called Rab-ul-Maal and other party provides services called Mudarib. Profit sharing ratio can be determined by the mutual understanding of both parties and should be determined at the time of agreement. But the loss in this mode of finance is only borne by Rab-ul-Maal. The time period of agreement and business in which

Mudarib invest the finance/assets should be written at the time of agreement (Usmani, 2002). This is very unique mode of finance which can be of great value to small and poor farmers. For agriculture financing bank will be Rab-ul-Maal while farmer will be Mudarib. Bank can provide finance, inputs, lands machinery and equipments to poor farmers who are short of resources.

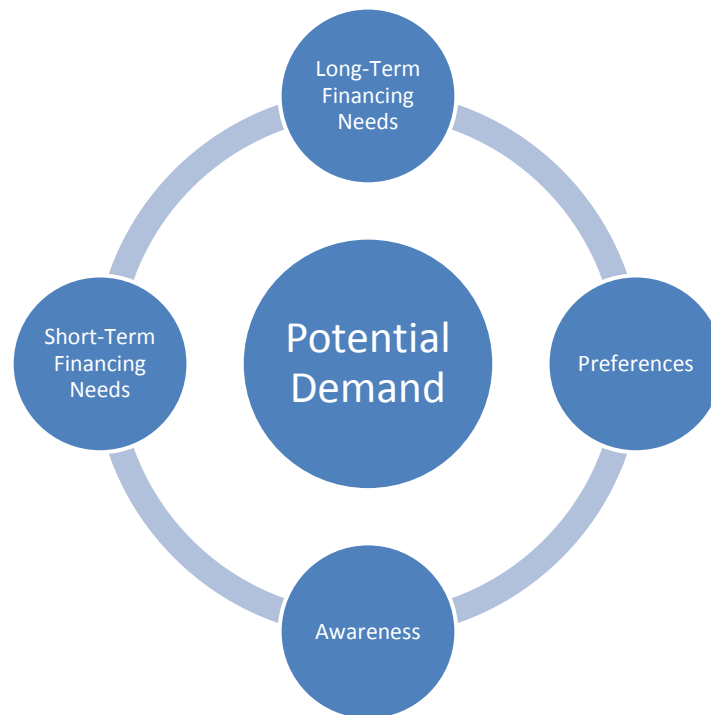
- d) **Murabaha:** It is non-participatory mode of finance and is commonly used in Islamic finance. Murabaha means sale, and in this mode seller (bank) discloses the price of commodity and also mention the amount of profit. Simply it is a sale on profit. In Pakistan mostly agriculture finance is not used for agriculture purpose. Farmers use this finance for their home consumption or for other needs. To avoid this, Murabaha is good type of finance in which bank provide the required goods instead of finance. In this way, efficient use of agriculture finance can be increased. There are some important rules of Murabaha. Goods which bank offer to sale must exist with the bank. Bank has ownership of those goods. Sale must be instant and absolute (SBP, 2010). Under this mode of finance, Islamic banks can sale raw materials, equipments, machinery and in some way the working capital to the farmers. Farmers can also purchase these things on deferred payments. This term is called Bai Muajjal.
- e) **Ijarah:** It is also a useful method of financing to increase the production especially for small farmers. This mode of finance can be useful to transfer the farming business from old traditional ways to new technological methods of farming. Ijarah mean giving products on lease. The asset under Ijarah should be valuable, non-perishable, non-consumable, identified and quantified (SBP, 2010). In this method banks give required

commodities/equipments to the farmers on lease. In this way it provides an opportunity to the small farmers who cannot purchase equipments and machinery. There are some rules of this contract. The time period for which farmer acquire a commodity on lease must be written. The bank will retain the ownership of that commodity. If farmer misuses that commodity, the bank can put penalty on farmer.

- f) **Salam:** Salam is an agreement in which advance payment is given to a person for a good which is delivered at any future date (Usmani, 2002). In this mode Islamic banks contract with farmers that the payment is given to farmers at present, farmers used that payment in production process and will give the production to the bank. It is also very important mode of finance especially country like Pakistan in which mostly famers have small holdings.
- g) **Istisna:** The function of Istisna is same as Salam. It is also a future contract. But works differently than salam. Salam is an arrangement for crop production while Istisna is done on manufacturing and assembling of commodities. The other main difference is that in Salam full advance payment is given to the farmers at the time of contract but in Istisna an order can be placed to produce required quantity of commodity and the payment can be made either at the start of agreement or when commodity is ready (Usmani, 2002).Islamic banking provides different products than conventional banking. It can play an important role in agriculture sector (Sadr et al., 2006). Islamic finance deals equally to all groups of farmers. It provides machinery, equipments and inputs to those small farmers who cannot purchase these goods either on lease or on interest free installments. It also provides finance for medium and large farmers to develop their farms. Islamic

banks can also create partnership in mega projects of agriculture. It will be equally helpful to the Agribusiness firms and industry dealing with the farming community, in a number of ways through above mentioned modes of arrangements. There could be bank-farmer dealing or three way arrangements among farmer, bank and industry.

2.6 Theoretical Framework



2.7 Research Hypothesis

Following are the hypothesis being abstracted from the earlier literature

- a) Long-term investment opportunities are available in agriculture sector ($\mu_{\text{Long-invest}} > 3$)
- b) Short-term investment opportunities are available in agriculture sector ($\mu_{\text{Short-invest}} > 3$)
- c) Level of awareness of long-term financing availability in Islamic banking ($\mu_{\text{Long-awareness}} > 2$)
- d) Level of awareness of short-term financing availability in Islamic banking ($\mu_{\text{short-awareness}} > 2$)

CHAPTER # 03

RESEARCH METHODOLOGY

As it has been indicated earlier in the chapter one, the major purpose of this study was to identify the areas where short-term and long-term financing is needed in agriculture sector and to check the farmer's level of familiarization with Islamic banking in agriculture sector. This chapter describes the population targeted for the study, sampling techniques used to taken the sample from the respective population, the research instrument used for the collection of data from the targeted segment and the statistical software's used to analyze and interpret the results.

3.1 Population & Sampling Technique

In order to define the population it consists on agriculture sector of Pakistan which includes all horticulture, floriculture, aqua culture, foresting and agri-processing. In order to identify the determinants of profitability of Islamic Banks in Agriculture of Pakistan, the survey instruments has designed consisting of mainly 4 factors, i.e. Long-term Need analysis, Short-term need analysis, awareness for long-term and short-term available financing and preferences. The population for this study consists of people from the agri-business in Pakistan. Before conducting this research study, proper information was collected from different types of Agriculture subheads in Pakistan, as shown in Table 3.1. Convenient sampling technique has been used to get sample from population.

3.2 Sample

A sample is a part of the population which is selected with the expectation that it will represent the characteristics of the population. A sample is a subset of a population. According to the sectoral division made by SMEDA for Agriculture in Pakistan, the Agriculture is divided into 7 major sectors. The total sample of 172 SME firms is proposed to select in which each sector having the different respondents. The segregation in tabular form is given below:

Serial #	Agriculture Sectors	Proposed Sample
1	Horticulture	40
2	Floriculture	30
3	Aqua Culture	10
4	Agri- processing	10
5	Foresting	10

Almost 150 questionnaires were distributed in Agriculture sector under different heads like, horticulture, floriculture, aqua culture, agri processing and foresting through convenient sampling. I got 99 responses for which detail is as under.

Sample Area	Code	Sector	Sample Freq.	Area%
Agriculture	1	Horticulture	40	40.4%
	2	Floriculture	30	35.3%
	3	Aqua Culture	10	10.1%
	4	Agri- processing	5	15.1%
		Total	99	100%

3.3 Research Tool

In order to collect the data, an instrument has developed, covering the maximum possible factors under the light of literature review and the need of Pakistani Agriculture environment. It covers mainly four dimensions i.e. long-term financing needs, short-term financing needs,

awareness about Islamic financing and preferences for kind of financial contract as mentioned above. The face and content validity have been tested with the help of expert researchers.

3.4 Data Collection

Anonymity of respondent has been considered by not taking his personal information and keeping the collected data for academia purpose only. Biasness has been avoided by not considering the improper filled questionnaires. Personal visits were made for collection of data. Respondent had given proper time for better response to the questions. Authority letter was issued from the institute for making data collection easier.

3.5 Analysis of Data

The proper procedure was adopted the data feeding, editing and coding. The ‘Statistical Package for Social Science’ (SPSS) software was used for the data analysis. So far, the applications of statistical tools are concerned for the presentation of results; descriptive statistical measures like measures of central tendency and dispersion were opted. For the acceptance or rejection of hypothesis some inferential statistics like one sample t-test, and Independent sample t-test were used.

3.6 Population and Sample

To identify factors influencing of cash holdings decisions, a survey instrument was designed under the light of the literature review. It was consisted of various factors i.e. Agriculture, Services, Manufacture, Mineral & Mining, Agri processing, Food products, and commerce factors. Considerations were given to the flow of the instrument. Each item taken under each factor heading was measured on 5 point likert scale. Keys of the scales were 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

To create best representative sample from the population for investigating the real determinants of cash holdings in Pakistan, the whole population was divided into seven sectors i.e. Agriculture, Services, Manufacture, Mineral & Mining, Agri processing, food products and commerce. Each response, from each sector, was taken from the person having decision making authority in an institute / department / organization etc. of Agriculture from all seven sectors, 172 responses were received out of 210 questionnaires distributed. The seven sectors have number of response different in Agri processing and mineral & mining have low responses as compare to other. In seven sectors maximum responses are 30 of any sector.

In the response rate profile cover all the seven sectors in all seven sectors each sector have 24 questionnaires. The Agriculture sector was divided into 6 parts i.e. Floriculture, Livestock/Dairy, Other Agriculture and Poultry etc. Respondent from service sector gave 100% response too. The service Sector was divided into seven parts i.e. Consultancy, Electronics and information technology etc. Manufacturing sector was divided into 9 parts i.e. Automobile, Furniture, Garments, Sports Goods and other Manufacture etc. Mineral and mining have 10% response of response collection of whole sample. Mineral and mining have 5 parts i.e. Gems & Jewelry and Marble and Granite etc. Third last is Agri Processing having 3% collecting of response that has 4 parts i.e. Leather and Other Agri Processing etc. Food products having 100% response it has 6 parts i.e. Beverage, Confectionery and Ghee & Oil etc. The last sector is commerce have 100% response having 3 Parts named Retail and Whole Sale etc. Table 3.2 shows that overall 82 percent response rate received.

CHAPTER # 04

DATA ANALYSIS

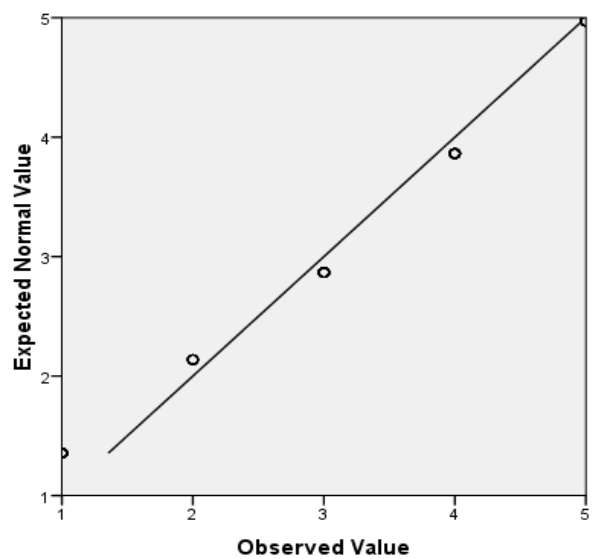
This chapter discusses the data results and analysis used for the study. First of all, Q-Q plot tests used to check the validity of a distributional assumption for a data set. Descriptive statistics, frequency tables and histograms are used for the better understanding of the interruptions of the results. In the last, reliability analysis was also conducted to check the validity and reliability of the questionnaire developed for the purpose of this research study. One sample t-test was also done to check the awareness level of farmers about the Islamic banking products.

4.1 Q-Q Plot Analysis

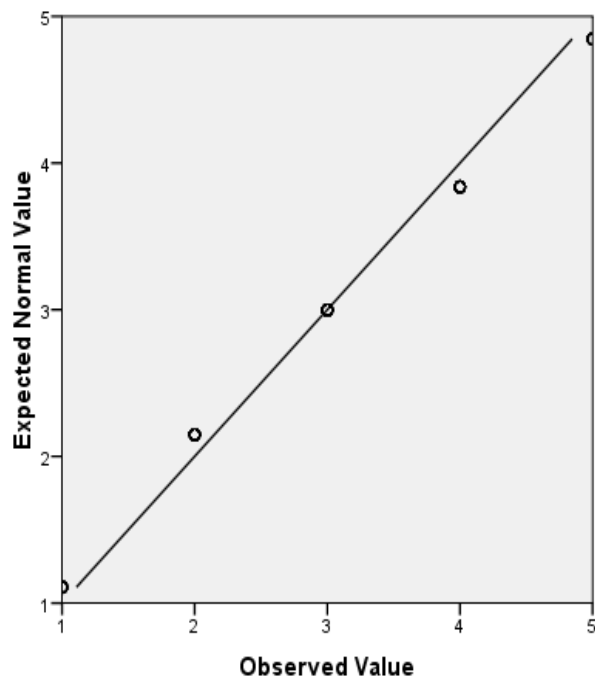
The quantile-quantile or q-q plot is an exploratory graphical device used to check the validity of a distributional assumption for a data set. In general, the basic idea is to compute the theoretically expected value for each data point based on the distribution in question. If the data indeed follow the assumed distribution, then the points on the q-q plot will fall approximately on a straight line. The q-q plot is a graphical technique for determining if two data sets come from populations with a common distribution. A q-q plot is a plot of the quantiles of the first data set against the quantiles of the second data set. The q-q plot is usually used to answer the following questions:

- Do two data sets come from populations with a common distribution?
- Do two data sets have common location and scale?
- Do two data sets have similar distributional shapes?

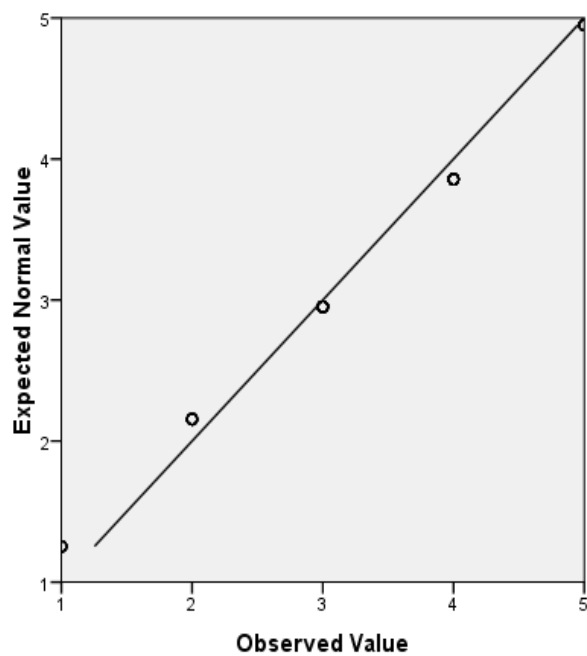
Normal Q-Q Plot of Long Term Need Analysis for installation of Plants/Machinery.



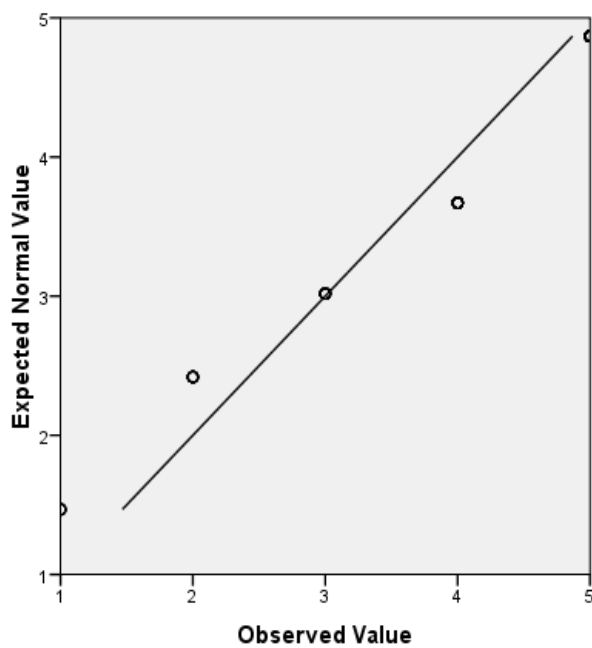
Normal Q-Q Plot of Long Term Need Analysis to purchase factory Equipments/Tools



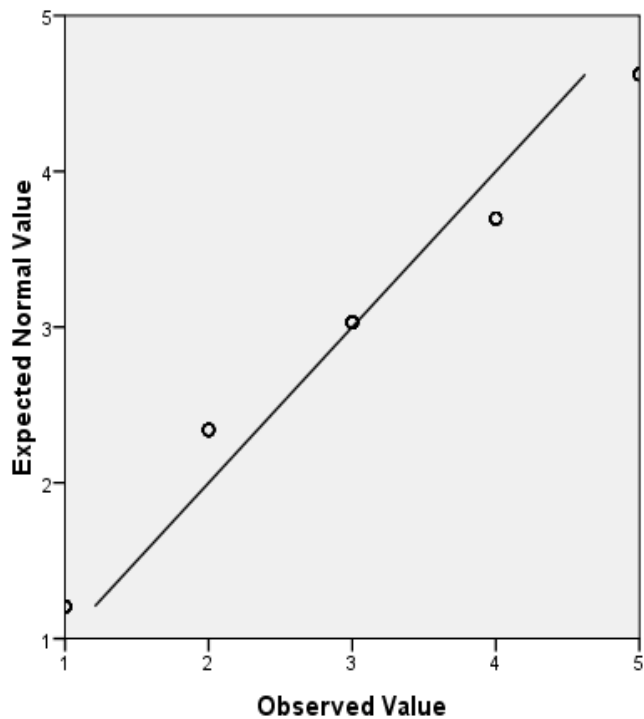
Normal Q-Q Plot of Long Term Need Analysis for the expansion of agri-business.



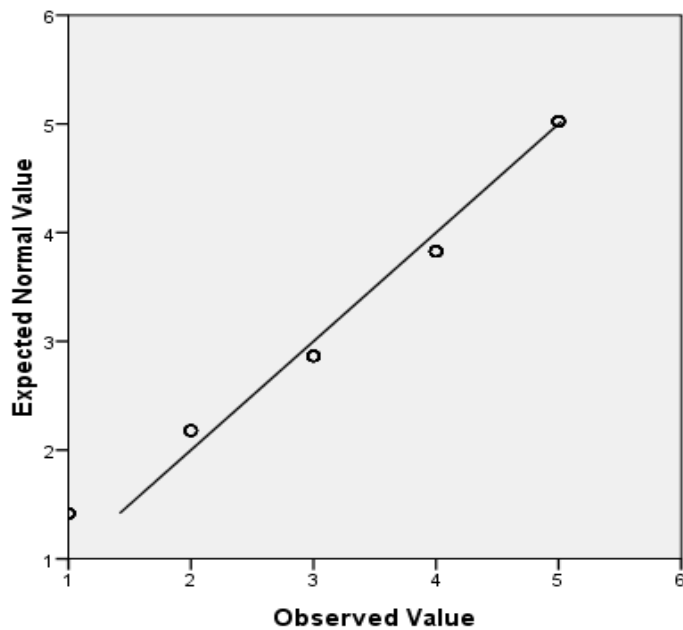
Normal Q-Q Plot of Long Term Need Analysis to compete Internationally.



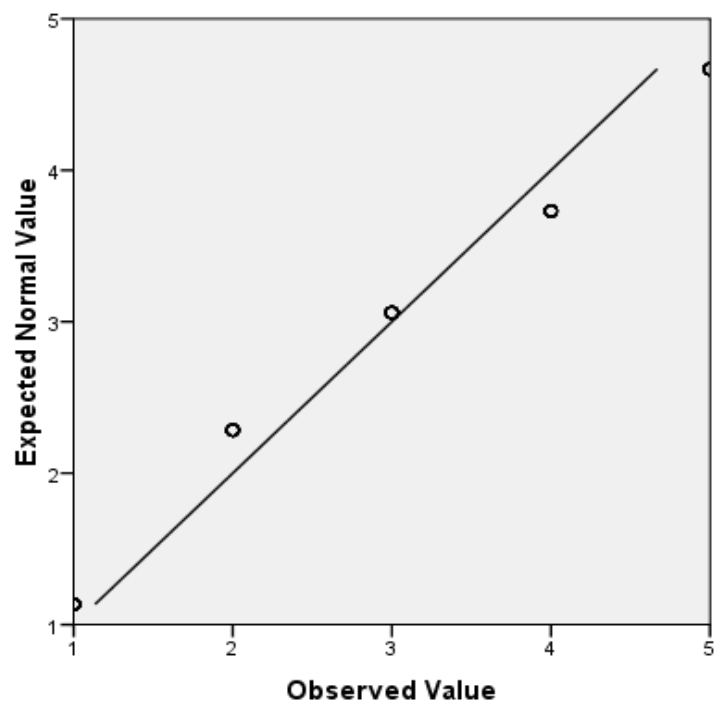
Normal Q-Q Plot of Short Term Need Analysis for transportation & delivering agri-goods.



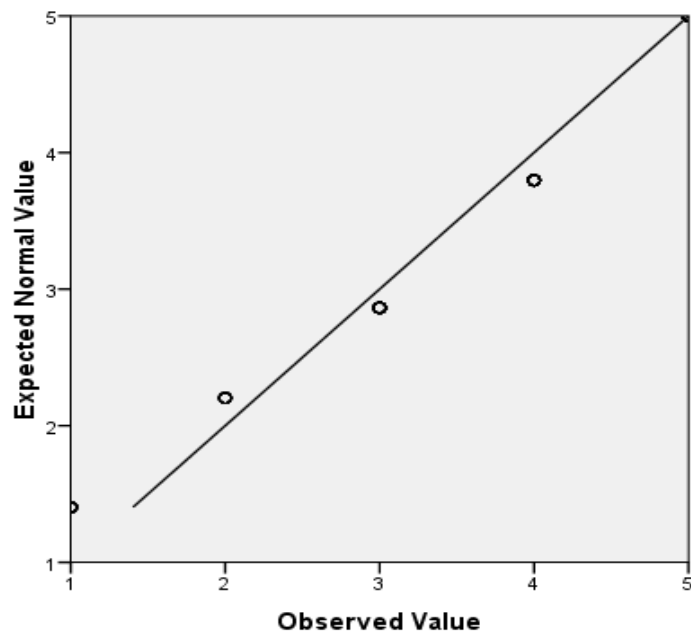
Normal Q-Q Plot of Short Term Need Analysis hiring the Trained staff & technology.



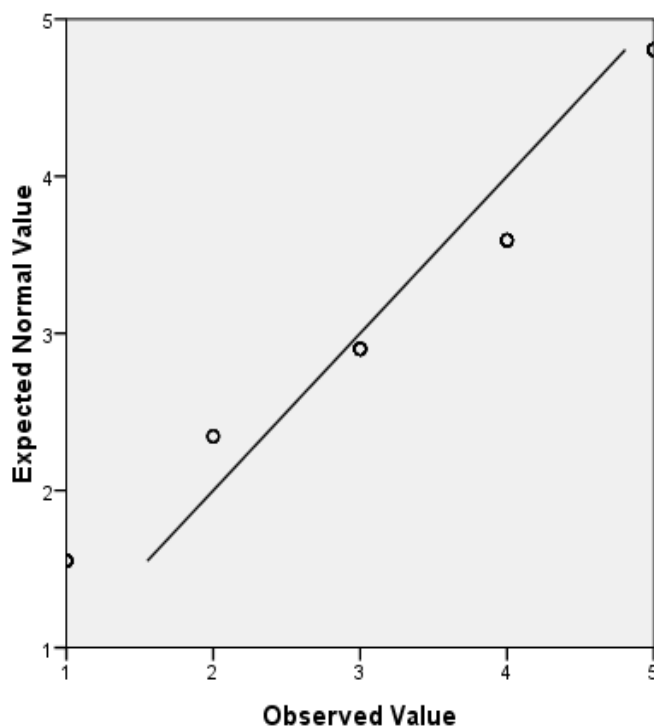
Normal Q-Q Plot of Short Term Need Analysis to balance the Salaries & Wages Exp



Normal Q-Q Plot of Short Term Need Analysis to purchase Raw Material



Normal Q-Q Plot of What Type of contract you want from Isalmic Bank



4.2 Descriptive Statistics for Need Analysis

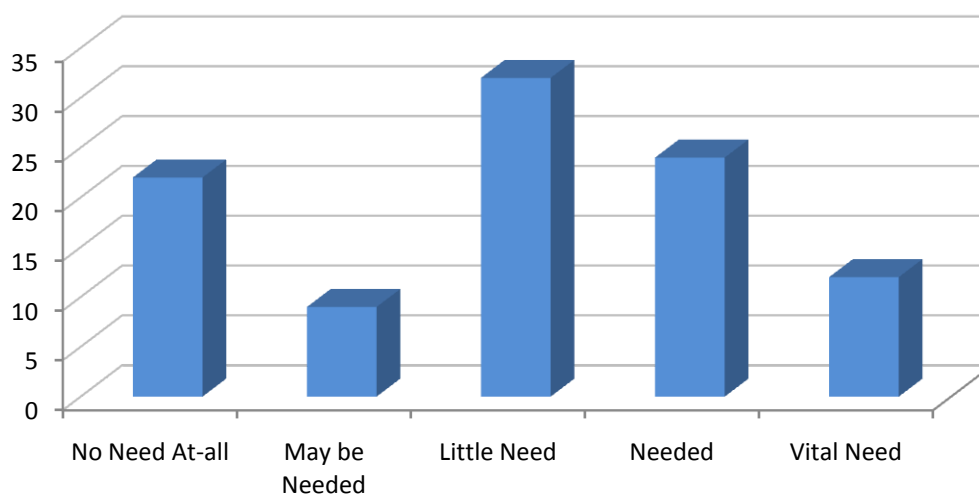
4.2.1 Long Term Need Analysis for installation of Plants/Machinery

Table # 4.1 shows long term need of the farmers for plant and machinery installation. The response for this from the farmers indicates that in the No Need at all category, the response rate is 22%. In May be needed category it is just 9%. And 32%, 24%, and 12% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' long term financial need for fixed capital financing through banking.

Table: 4.1 - Long Term Need Analysis for installation of Plants/Machinery		
Items	Frequency	Percentage
No Need At-all	22	22.2
May be Needed	9	9.1
Little Need	32	32.3
Needed	24	24.2
Vital Need	12	12.1
Total	99	100

The figure clearly shows that farmers need fixed capital financing as little need (32% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the needed category and the third highest is the No Need at all. In all these three highest categories on Needed shows some positive response or looks little bit inclined towards fixed capital financing need. Otherwise the 2 categories show there is almost no need by farmers for long term financing for supporting their fixed capital. This also shows that our agriculture sector has not been fully mechanized and most part of the sector is using medieval instruments for cultivations and harvesting. The second possibility of almost little need for fixed capital could be the availability of plant and machinery on rental basis.

Figure: 4.1 - Long Term Need Analysis for installation of Plants/Machinery

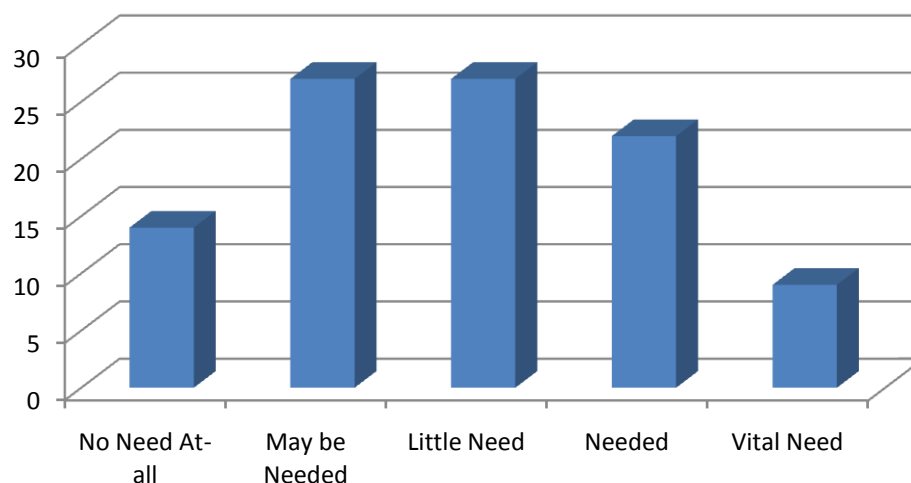


4.2.2 Long Term Need Analysis to Purchase Factory Equipments/Tools

Table # 4.2 shows Long term needs of the farmers for factory equipments and tools. The response for this from the farmers indicates that in the No Need at all categories the response rate is 14%. In May be needed category it is 27%. And 27%, 22%, and 9% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' long term financial need for fixed capital financing through baking.

Table: 4.2 - Long Term Need Analysis to purchase factory Equipments/Tools		
Items	Frequency	Percent
No Need At-all	14	14.1
May be Needed	27	27.3
Little Need	27	27.3
Needed	22	22.2
Vital Need	9	9.1
Total	99	100

The figure clearly shows that farmers need fixed capital financing as may be needed and little need (27% response rates) showing the highest bar among other categories. The second highest bar in the diagram is shown from the little need category and the third is from needed. In all these three highest categories on needed shows some positive response or looks little bit inclined towards fixed capital financing need. The middle three categories show there is a need by farmers for long term financing for supporting their fixed capital. This also shows that our agriculture sector has growing. The second possibility of this behavior shows there is no availability of tools on rental basis.

Figure: 4.2 - Long Term Need Analysis to purchase factory Equipments/Tools

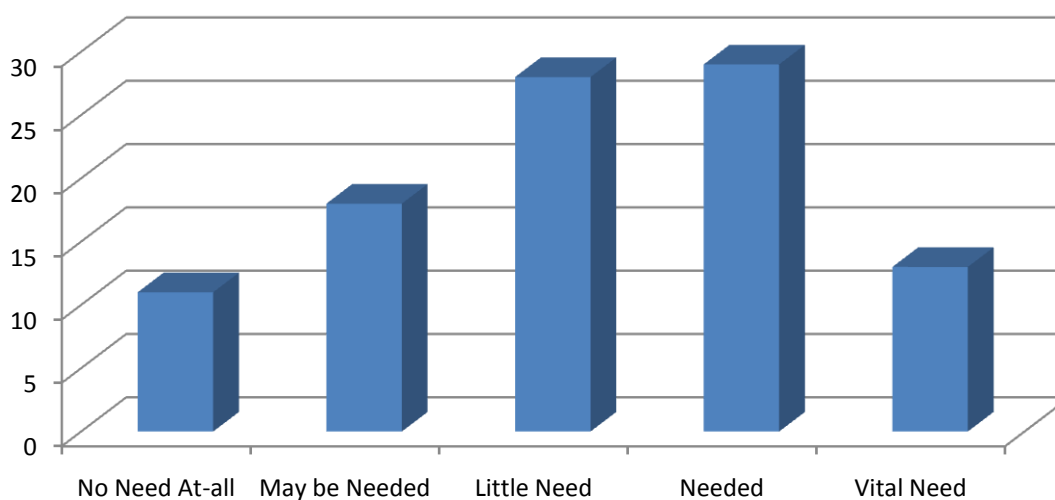
4.2.3 Long Term Need Analysis for the Expansion of Agri-business

Table # 4.3 shows Long term needs of the farmers for the expansion of their existing Agri-Business. The response for this from the farmers indicates that in the No Need at all category the response rate is 11%. In May be needed category it is 18%. And 28%, 29%, and 13% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' long term financial need for fixed capital financing through banking.

Table: 4.3 - Long Term Need Analysis for the expansion of agri-business		
Items	Frequency	Percent
No Need At-all	11	11.1
May be Needed	18	18.2
Little Need	28	28.3
Needed	29	29.3
Vital Need	13	13.1
Total	99	100

The figure clearly shows that farmers need fixed capital financing as needed (29% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the little need category and the third highest is the May be Needed. In all these three highest categories on Needed shows some positive response or looks little bit inclined towards fixed capital financing need. Otherwise the 2 categories show there is almost no need by farmers for long term financing for supporting their fixed capital.

Figure: 4.3 - Long Term Need Analysis for the expansion of agri-business



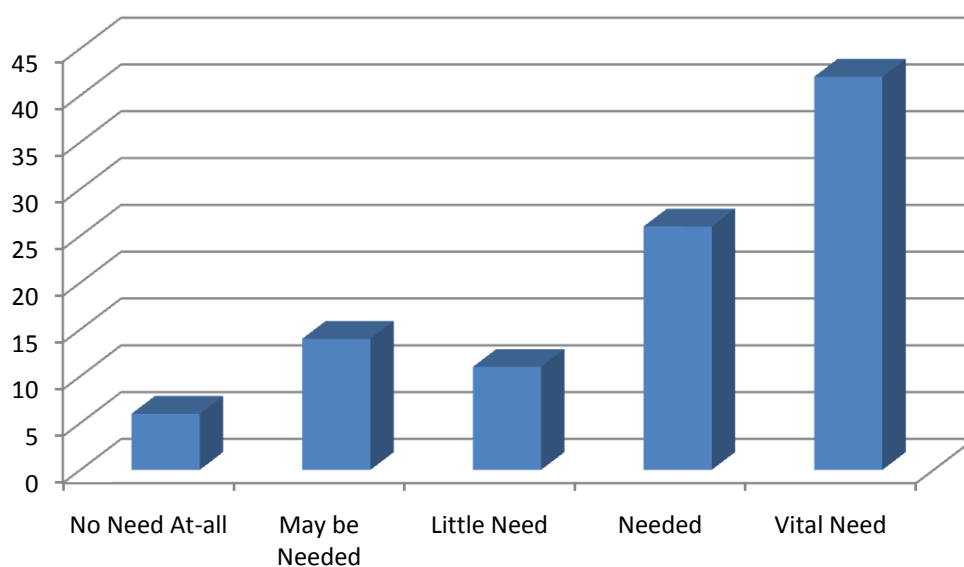
4.2.4 Long Term Need Analysis to Compete Internationally

Table # 4.4 shows Long term need of the farmers to compete in international market. The response for this from the farmers indicates that in the No Need at all category the response rate is 6%. In May be needed category it is 14%. And 11%, 26%, and 42% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' long term financial need for fixed capital financing through banking.

Table: 4.4 - Long Term Need Analysis to compete Internationally.		
Items	Frequency	Percent
No Need At-all	6	6.1
May be Needed	14	14.1
Little Need	11	11.1
Needed	26	26.3
Vital Need	42	42.4
Total	99	100

The figure clearly shows that farmers need fixed capital financing as vital need (42% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the needed category and the third highest is the May be Needed. In all these three highest categories on Needed shows some positive response or looks little bit inclined towards fixed capital financing need. Otherwise the 2 categories show there is almost no need by farmers for long term financing for supporting their fixed capital.

Figure: 4.4 - Long Term Need Analysis to compete Internationally



4.2.5 Short Term Need Analysis for Transportation and Delivering Agri-goods

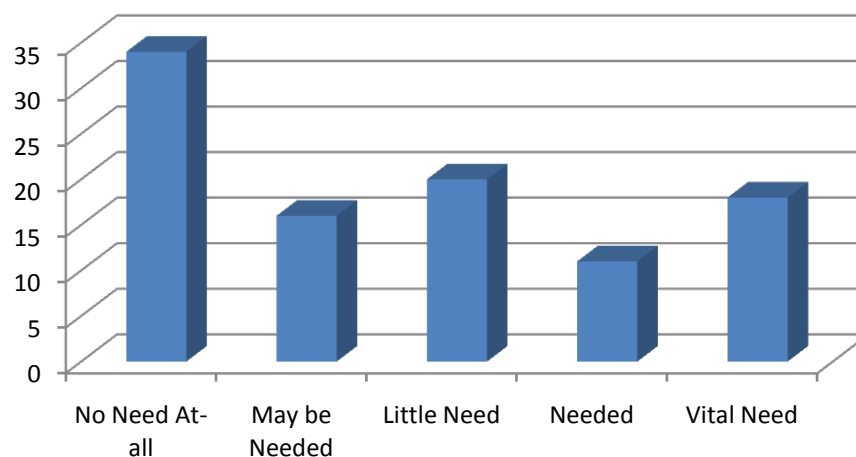
Table # 4.5 shows Short term need of the farmers for transportation. The response for this from the farmers indicates that in the No Need at all category the response rate is 34%. In May be needed category it is just 16%. And 20%, 11%, and 18% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' short term financial need for working capital financing through banking.

Table: 4.5 - Short Term Need Analysis for transportation & delivering agri-goods.		
Items	Frequency	Percent
No Need At-all	34	34.3
May be Needed	16	16.2
Little Need	20	20.2
Needed	11	11.1
Vital Need	18	18.2
Total	99	100

The figure clearly shows that farmers need working capital financing as No need at all (34% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the little need category and the third highest is the May be Needed. In all these three highest categories on No Needed look little bit inclined towards working capital financing no need. Otherwise the 2 categories show there is need by farmers for short term financing for supporting their working capital. This also shows that our agriculture sector have not been fully mechanized and most part of the sector is using medieval instruments for

cultivations and harvesting. The second possibility of almost little need for fixed capital could be the availability of plant and machinery on rental basis.

Figure: 4.5 - Short Term Need Analysis for transportation & delivering agri-goods.



4.2.6 Short Term Need Analysis for Hiring the Trained Staff and Technology

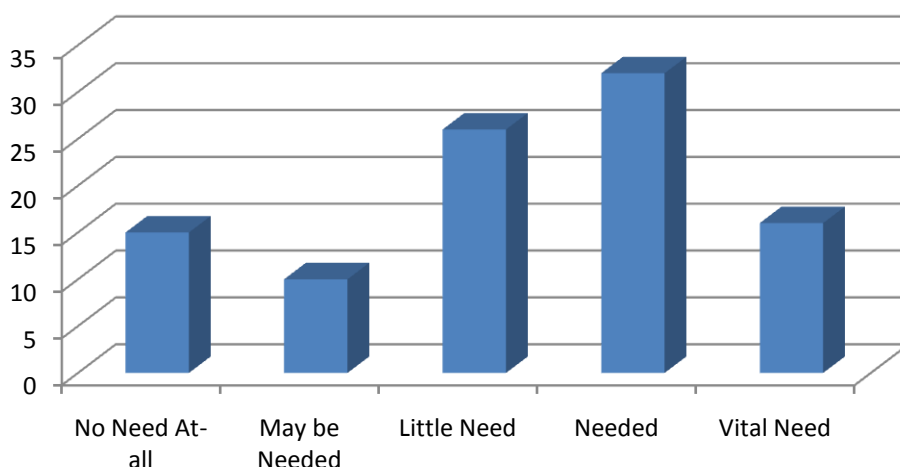
Table # 4.6 shows Short term need of the farmers to hire specialized Staff. The response for this from the farmers indicates that in the No Need at all category the response rate is 15%. In May be needed category it is just 10%. And 26%, 32%, and 16% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' short term financial need for working capital financing through banking.

Table: 4.6 - Short Term Need Analysis hiring the Trained staff & technology		
Items	Frequency	Percent
No Need At-all	15	15.2
May be Needed	10	10.1

Little Need	26	26.3
Needed	32	32.3
Vital Need	16	16.2
Total	99	100

The figure clearly shows that farmers need working capital financing as needed (32% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the little need category and the third highest is the Vital Need. In all these three highest categories on Needed shows some positive response. Otherwise the 2 categories show there is almost no need by farmers for short term financing for supporting their working capital.

Figure: 4.6 - Short Term Need Analysis hiring the Trained staff & technology



4.2.7 Short Term Need Analysis to Balance the Salaries and Wages Expenses

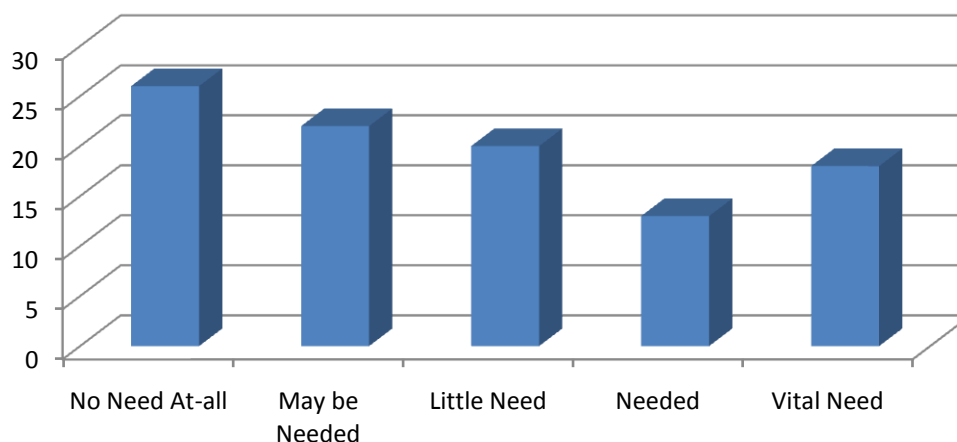
Table # 4.7 show short term need of the farmers for salaries and wages payment. The response for this from the farmers indicates that in the No Need at all category the response rate is 26%. In May be needed category it is 22%. And 20%, 13%, and 18% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown

in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' short term financial need for working capital financing through banking.

Table: 4.7 - Short Term Need Analysis to balance the Salaries & Wages Exp		
Items	Frequency	Percent
No Need At-all	26	26.3
May be Needed	22	22.2
Little Need	20	20.2
Needed	13	13.1
Vital Need	18	18.2
Total	99	100

The figure clearly shows that farmers need working capital financing as No need at all (26% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the May be needed category and the third highest is the Little Need. In all these three highest categories on Needed shows little bit inclined towards working capital financing no need. Otherwise the 2 categories show there is a need by farmers for short term financing for supporting their working capital.

Figure: 4.7 - Short Term Need Analysis to balance the Salaries & Wages Exp

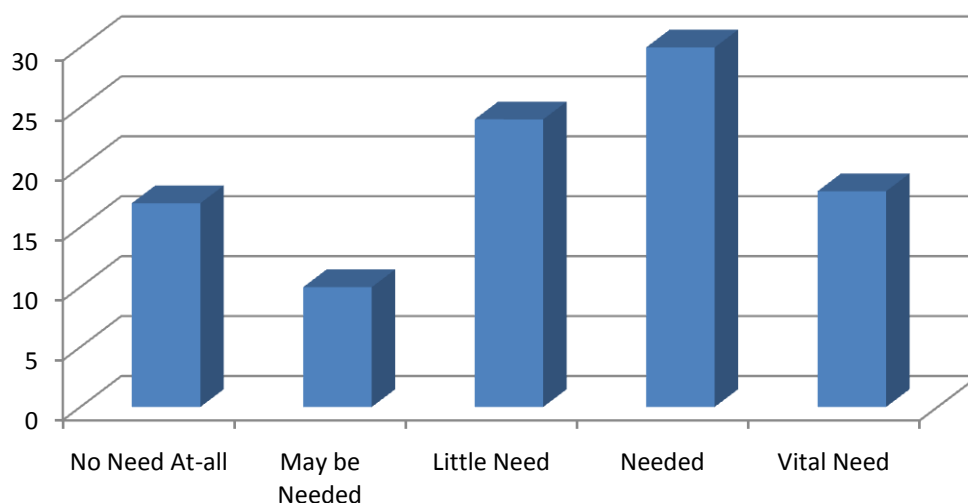


4.2.8 Short Term Need Analysis to Purchase Raw Material

Table # 4.8 shows short term need of the farmers for purchase of raw material. The response for this from the farmers indicates that in the No Need at all category the response rate is 17%. In May be needed category it is just 10%. And 24%, 30%, and 18% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' short term financial need for working capital financing through banking.

Table: 4.8 - Short Term Need Analysis to purchase Raw Material		
Items	Frequency	Percent
No Need At-all	17	17.2
May be Needed	10	10.1
Little Need	24	24.2
Needed	30	30.3
Vital Need	18	18.2
Total	99	100

The figure clearly shows that farmers need working capital financing as Needed (30% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the Little need category and the third highest is the Vital Need. In all these three highest categories on Needed shows some positive response towards working capital financing need. Otherwise the 2 categories show there is almost no need by farmers for short term financing for supporting their working capital.

Figure: 4.8 - Short Term Need Analysis to Purchase Raw Material

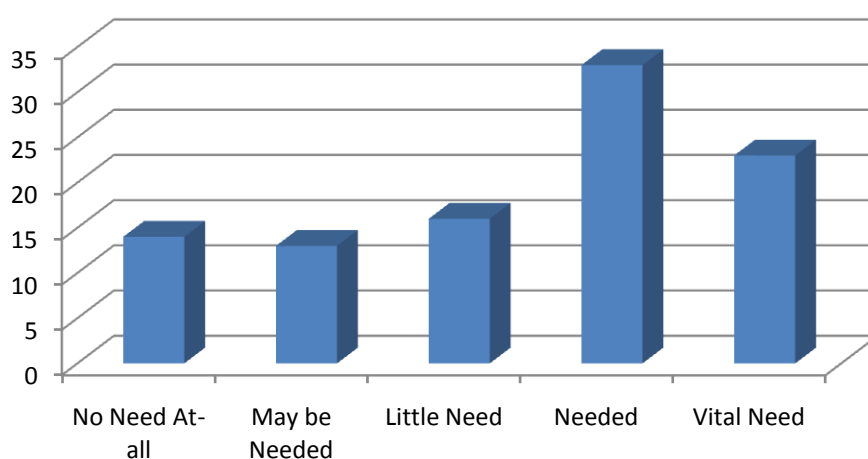
4.2.9 Short Term Need Analysis to Purchase Raw Material

Table # 4.9 shows short term need of the farmers for purchase of medications. The response for this from the farmers indicates that in the No Need at all category the response rate is 14%. In May be needed category it is 13%. And 16%, 33%, and 23% are in the categories of Little need, Needed, and Vital need respectively. The data mentioned earlier has also been shown in diagrammatical format. Where on the vertical axis the response % has been taken and on horizontal axis the categories have been taken regarding the farmers' short term financial need for working capital financing through banking.

Table: 4.9 - Short Term Need Analysis to arrange the medications		
Items	Frequency	Percent
No Need At-all	14	14.1
May be Needed	13	13.1
Little Need	16	16.2
Needed	33	33.3
Vital Need	23	23.2
Total	99	100

The figure clearly shows that farmers need working capital financing as needed (33% response rate) showing the highest bar among other categories. The second highest bar in the diagram is shown from the Vital need category and the third highest is the Little Need. In all these three highest categories on Needed shows some positive response towards working capital financing need. Otherwise the 2 categories show there is almost no need by farmers for short term financing for supporting their working capital.

Figure: 4.9 - Short Term Need Analysis to arrange the medications



4.3 Descriptive Statistics for Awareness

4.3.1 Long Term Availability Analysis for installation of Plants/Machinery

Table # 4.10 shows Awareness among the farmers regarding availability of long term financial facility in market for plant and machinery installation. It shows 67% farmers are aware of it and only 33% farmers have no awareness of such type facility available in market or not. Table shows 70% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.10 - Long Term Availability Analysis for installation of Plants/Machinery.		
Items	Frequency	Percent
Available	29	29.3
Not Available	37	37.4
Don't Know	33	33.3
Total	99	100

4.3.2 Long Term Availability Analysis to Purchase Factory Equipments/Tools

Table # 4.11 shows Awareness among the farmers regarding availability of long term financial facility in market for purchase of factory equipment and tools. It shows 58% farmers are aware of it and only 42% farmers have no awareness of such type facility available in market or not. Table shows 75% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.11 - Long Term Availability Analysis to purchase factory Equipments/Tools		
Items	Frequency	Percent
Available	24	24.2
Not Available	34	34.3
Don't Know	41	41.4
Total	99	100

4.3.3 Long Term Availability Analysis for the Expansion of Agri-business

Table # 4.12 shows Awareness among the farmers regarding availability of long term financial facility in market for expansion of their existing agri-business. It shows 68% farmers are aware of it and only 32% farmers have no awareness of such type of facility available in market or not. Table shows 66% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.12 - Long Term Availability Analysis for the expansion of agri-business.		
Items	Frequency	Percent
Available	34	34.3
Not Available	34	34.3
Don't Know	31	31.3
Total	99	100

4.3.4 Long Term Availability Analysis to Complete Internationally

Table # 4.13 shows Awareness among the farmers regarding availability of long term financial facility in market for exporting their products. It shows 61% farmers are aware of it and only 39% farmers have no awareness of such type of facility available in market or not. Table shows 75% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.13 - Long Term Availability Analysis to compete Internationally.		
Items	Frequency	Percent
Available	25	25.3
Not Available	35	35.4
Don't Know	39	39.4
Total	99	100

4.3.5 Long Term Availability Analysis for Transportation and Delivering Agri-goods

Table # 4.14 shows Awareness among the farmers regarding availability of short term financial facility in market for transportation of their agri-products. It shows 61% farmers are aware and only 39% farmers have no awareness of such type of facility available in the market or not. Table shows 74% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.14 - Short Term Availability Analysis for transportation & delivering agri-goods.		
Items	Frequency	Percent
Available	26	26.3
Not Available	34	34.3
Don't Know	39	39.4
Total	99	100

4.3.6 Short Term Availability Analysis for Hiring the Trained Staff and Technology

Table # 4.15 shows Awareness among the farmers regarding availability of short term financial facility in market for acquiring latest technology and trained staff for betterment of their existing business to compete in market. It shows 57% farmers are aware of it and only 43% farmers have no awareness of such type of facility available in the market or not. Table shows 76% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.15 - Short Term Availability Analysis hiring the trained staff & technology.		
Items	Frequency	Percent
Available	23	23.2
Not Available	34	34.3
Don't Know	42	42.4
Total	99	100

4.3.7 Short Term Availability Analysis to Balance the Salaries and Wages Expense

Table # 4.16 shows Awareness among the farmers regarding availability of short term financial facility in market to meet salary and wage expenses of workers of their agri-business for smooth run of business. It shows 60% farmers are aware of it and only 40% farmers have no awareness of such type of facility available in the market or not. Table shows 85% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.16 - Short Term Availability Analysis to balance the Salaries & Wages Exp		
Items	Frequency	Percent
Available	14	14.1
Not Available	45	45.5
Don't Know	40	40.4
Total	99	100

4.3.8 Short Term Availability Analysis to Purchase Raw Material

Table # 4.17 shows Awareness among the farmers regarding availability of short term financial facility in market for purchase of raw material for their business. It shows 61% farmers are aware of it and only 39% farmers have no awareness of such type of facility available in the market or not. Table shows 71% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel, because working capital is in need of a business like blood for a body.

Table: 4.17 - Short Term Availability Analysis to purchase Raw Material		
Items	Frequency	Percent
Available	29	29.3
Not Available	32	32.3
Don't Know	38	38.4
Total	99	100

4.3.9 Short Term Availability Analysis to Arrange the Medications

Table # 4.18 shows Awareness among the farmers regarding availability of short term financial facility in market for purchase of medication for their fields or livestock. It shows 59% farmers are aware of it and only 41% farmers have no awareness of such type of facility available in the market or not. Table shows 71% farmers either don't know or unavailability of such type of financial facility which clearly describes there is high potential in that area for Islamic banks to excel.

Table: 4.18 - Short Term Availability Analysis to arrange the medications		
Items	Frequency	Percent
Available	29	29.3
Not Available	29	29.3
Don't Know	41	41.4
Total	99	100

4.3.10 Do you have Short Term Loan

Table # 4.19 shows 41% farmers having bank loans and familiar with basic procedure of it, whereas 58.6% farmers don't use credit facility from the banks.

Table: 4.19 - Do you have short term loan		
Items	Frequency	Percent
Yes	41	41.4
No	58	58.6
Total	99	100

4.3.11 How many Short Term Loans you have

Table # 4.20 shows the market potential for Islamic Banks to excel in it. It clearly shows that there are almost 57% farmers who didn't get short term financial facility yet. According to

the “Need analysis” section it is very much cleared that they are in need of it. So the conclusion may be made that there is 57% market share is available for Islamic Banks for maximizing their profitability.

Table: 4.20 - How many Short term loans you have		
Items	Frequency	Percent
No Loan	58	58.6
One Loan	26	26.3
Tow Loan	5	5.1
Three Loan	8	8.1
More Than Three	2	2
Total	99	100

4.3.12 Do you have Long Term Loan

Table # 4.21 shows 35% farmers already having long term bank loans and familiar with long procedure of it.

Table: 4.21 - Do you have long term loan		
Items	Frequency	Percent
Yes	35	35.4
No	64	64.6
Total	99	100

4.3.13 How many Long Term Loans you have

Table # 4.22 shows the market potential of long term financial facility for Islamic Banks to excel in it. Above table clearly shows that there are almost 65% farmers who didn't get Long Term financial facility yet. From above need analysis section we are very much clear that they are in need of it. So in other words we can say that there is 65% market share is available for Islamic Banks for maximizing their profitability on long term basis.

Table: 4.22 - How many long term loans you have

Items	Frequency	Percent
No Loan	64	64.6
One Loan	25	25.3
Tow Loan	8	8.1
Three Loan	2	2
Total	99	100

4.3.14 How many Bank Accounts you have

Table # 4.23 shows the familiarization of farmers with the banking system. It shows almost 81% farmers are having bank accounts. That is very good figure because it's a clear sign that most of the farmers having basic knowledge of banking system. So Islamic Banker can easily explain them regarding any product and procedures and there is also a positive sign for Islamic Bankers that they can easily explore and target the market to earn enormous profits.

Table: 4.23 - How many bank accounts you have

Items	Frequency	Percent
No Account	17	17.2
One to Two	65	65.7
Three to Four	15	15.2
More Than Four	2	2
Total	99	100

4.3.15 How many Bank Accounts you have

Table # 4.24 shows only 26% respondents are willing to take financial facility from banks as they are working now. But 74% respondents are not happy with the current scenario they have following problems with the current system. Like; Relegious, Lengthy procedure, Difficult Procedure, Strict Conditions and Not cooperating staff members of Bank.

Items	Frequency	Percent
Yes	26	26.3
No	73	73.7
Total	99	100

4.3.16 Reasons Behind Not Taking Loans

Table # 4.25 shows the reasons behind not taking loan from the banks. There are 24 percent farmers having no problem at all and remaining 76% farmers facing different types of problems while taking loan from the Banks. The first and most important problem is Religious problem, 28% farmers are away from banks just due to conventional banking system which deals in *Ribah*. It clearly shows 28% market share can be addressed by Islamic bankers without any extra efforts because Islamic banks having *Ribah* free dealings. The second major problem faced by farmers is Strict Conditions which is 20% out of 47%. 13%, 12% and 2% having problems related Difficult Procedure, Lengthy Procedure and not cooperating Staff respectively. Banks are bound to follow strict conditions so there is no need of debate. But rest of the problems like difficult, lengthy procedure and not cooperating staff can be minimized to get more 27% share of market.

Items	Frequency	Percent
Haven't any Problem	24	24.2
Religious	28	28.3
Lengthy Procedure	12	12.1
Difficult Procedure	13	13.1
Strict Conditions	20	20.2
Not Cooperate Staff	2	2
Total	99	100

4.3.17 Kind of Contract

In the survey the respondents were asked which kind of contract they prefer to hold with Islamic banks for their various needs of financing. 51% of the respondents show willingness to adopt Rental base of Islamic mode of financing. 16% and 33% respondents not decided yet and unwillingness to adopt it respectively. 33% respondents may be due to limited knowledge regarding Islamic modes of financing. 66% of the respondents show willingness to adopt Partnership base of Islamic mode of financing. 17% and 14% respondents not decided yet and unwillingness to adopt it respectively. 14% respondents may be due to limited knowledge regarding Islamic modes of financing. 57% of the respondents show willingness to adopt Trade base of Islamic mode of financing. 19% and 24% respondents not decided yet and unwillingness to adopt it respectively. 24% respondents may be due to limited knowledge regarding Islamic modes of financing.

Table: 4.26 - What Type of contract you want from Islamic Bank						
Items	Rental Base		Partnership Base		Trade Base	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Disagree	20	20.2	14	14.1	19	19.2
Disagree	13	13.1	3	3	5	5.1
Not Decided	16	16.2	17	17.2	19	19.2
Agree	5	5.1	24	24.2	16	16.2
Strongly Agree	45	45.5	41	41.4	40	40.4
Total	99	100	99	100	99	100

Figure: 4.10 - Rental Base Contract

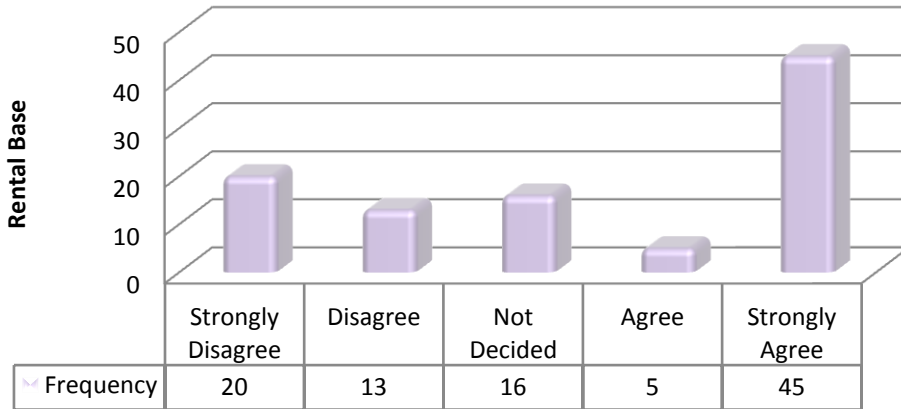


Figure: 4.11 - Partnership Base Contract

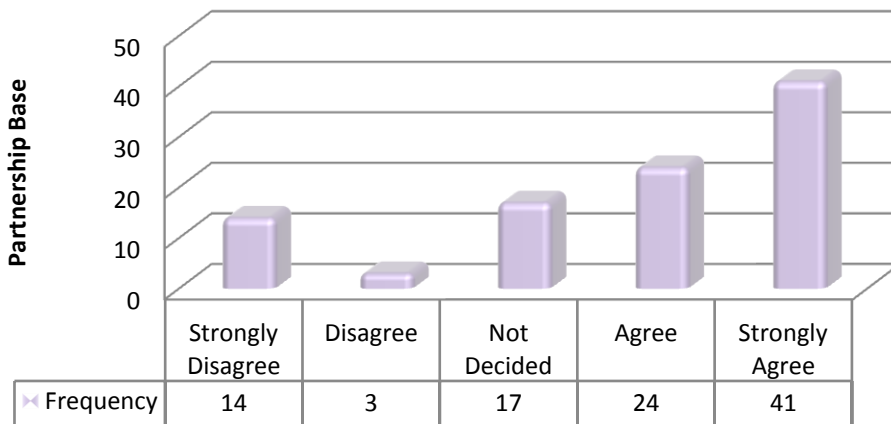
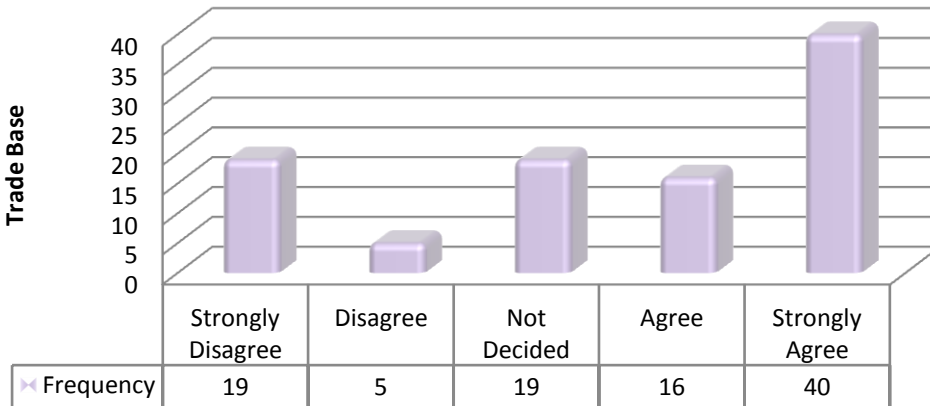


Figure: 4.12 - Trade Base Contract



4.4 Reliability and Validity Analysis

Reliability refers to the consistency and stability in the results of a test or scale. The more reliable a scale, the better (e.g., more valid) the scale (Kline, 1986). First, a pilot survey was done with the help of simple convenient sampling technique. After keeping in consideration of the pilot survey respondent's suggestions and software results, the questions of the questionnaire were rephrased to make reliable and valid research instrument. The final survey questionnaire is filled by the 100 firms that are involved in various capital budgeting techniques. The responses of the survey research entered in the SPSS and reliability analysis is done in order to check the reliability of the instrument design. Table shows the output of the Reliability Statistics results.

Table: 4.27 - Reliability Statistics	
Cronbach's Alpha	N of Items
0.85	9

In this case alpha is slightly above .8, and is certainly in the region indicated by Kline (1986), so this probably indicates good reliability. As a final point, it's worth noting that if items do need to be removed at this stage then you should re-run your factor analysis as well to make sure that the deletion of the item has not affected the factor structure. As in our study the reliability and validity of the items are not need to be removed from the tested instrument, so we don't go for the further improvement in reliability by deleting any item.

4.5 One Sample T test Analysis

The below table shows the application result of the one sample t-test findings. It was applied on 4 long term financing and 5 short term financing related items. The first 3 items related to long term financing do not have a significant values but the last one have extreme significant value. In case of short term financing need analysis 4 items out of 5 are significant at 5% and 10% level.

Under long term financing, the need for installation of plant and machinery, for purchasing factory equipments, and expansion of a business received significance level 0.703, 0.208 and 0.211 respectively. All these are insignificant. The last item under LTNA was competing internationally which secured significant value 0, which certainly shows that farmers need long term financing to compete internationally.

Under short term financing, the need for transportation, hiring trained staff, for operational cost, purchasing raw material and arranging the medications secured level of significance 0.015, 0.062, 0.085, 0.101 and 0.006 respectively.

Need for transportation received 1.5% significance level with minus t value which shows that they don't need any loan for transportation at all. Hiring trained staff received 0.062 significance value which is significant at 10% level. In the last arranging the medications as a domestic requirement received 0.006 significant value which indicates the malnutrition in village side areas and they are in the frequently need of finances for their medications.

Table: 4.28 - One-Sample Test						
	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2- tailed)	Mean Difference	Lower	Upper
Long Term Need Analysis for installation of Plants/Machinery.	- 0.383	98	0.703	-0.05051	- 0.3122	0.2112
Long Term Need Analysis to purchase factory Equipments/Tools	- 1.267	98	0.208	-0.15152	- 0.3888	0.0858
Long Term Need Analysis for the expansion of agri- business.	1.258	98	0.211	0.15152	- 0.0875	0.3905
Long Term Need Analysis to compete Internationally.	6.592	98	0.00	0.84848	0.5931	1.1039
Short Term Need Analysis for transportation & delivering agri-goods.	- 2.475	98	0.015	-0.37374	- 0.6734	- 0.0741
Short Term Need Analysis hiring the Trained staff & technology.	1.887	98	0.022	0.24242	- 0.0126	0.4974
Short Term Need Analysis to balance the Salaries & Wages Exp	- 1.739	98	0.025	-0.25253	- 0.5408	0.0357
Short Term Need Analysis to purchase Raw Material	1.654	98	0.101	0.22222	- 0.0444	0.4888
Short Term Need Analysis to arrange the medications	2.823	98	0.006	0.38384	0.114	0.6537

4.6 Cross Tabulation Tests

4.6.1 Long Term Need Analysis to compete internationally*Availability

Long term need analysis to compete internationally in comparison of availability of long term financing is shown in the above table long term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 17 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 35 respondents are having the perception that the long term financing from financial institutions are not available though among them 28 respondents are in the need of long term financing. Out of 99 respondents 39 respondents are just unaware about the availability of long term financing. Among them 34 respondents are in the need of long term financing.

Table: 4.29 - Long Term Need Analysis to compete Internationally * Long Term Availability Analysis to compete Internationally					
		Long Term Availability Analysis to compete Internationally.			
		Available	Not Available	Don't Know	Total
Long Term Need Analysis to compete Internationally.	No Need At-all	4	0	2	6
	May be Needed	4	7	3	14
	Little Need	0	8	3	11
	Needed	5	12	9	26
	Vital Need	12	8	22	42
Total		25	35	39	99

4.6.2 Short Term Need Analysis for Transportation/Delivering Agri-goods * Availability

Short term need analysis to transport in comparison of availability of short term financing is shown in the above table short term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 4 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 34 respondents are having the perception that the long term financing from financial institutions are not available though among them 22 respondents are in the need of long term financing. Out of 99 respondents 39 respondents are just unaware about the availability of long term financing. Among them 18 respondents are in the need of long term financing.

Table: 4.30 - Short Term Need Analysis for transportation & delivering agri-goods. * Short Term Availability Analysis for transportation & delivering agri-goods.					
		Short Term Availability Analysis for transportation & delivering agri-goods.			
		Available	Not Available	Don't Know	Total
Short Term Need Analysis for transportation & delivering agri-goods.	No Need At-all	13	5	16	34
	May be Needed	4	7	5	16
	Little Need	5	8	7	20
	Needed	2	5	4	11
	Vital Need	2	9	7	18
Total		26	34	39	99

4.6.3 Short Term Need Analysis for Hiring Staff and Technology * Availability

Short term need analysis to hire the trained staff in comparison of availability of short term financing is shown in the above table short term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 18 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 34 respondents are having the perception that the short term financing from financial institutions are not available though among them 28 respondents are in the need of short term financing. Out of 99 respondents 42 respondents are just unaware about the availability of long term financing. Among them 28 respondents are in the need of long term financing.

Table: 4.31 - Short Term Need Analysis hiring the Trained staff & technology. * Short Term Availability Analysis hiring the Trained staff & technology.					
		Short Term Availability Analysis hiring the Trained staff & technology.			
		Available	Not Available	Don't Know	Total
Short Term Need Analysis hiring the Trained staff & technology.	No Need At-all	4	0	11	15
	May be Needed	1	6	3	10
	Little Need	9	12	5	26
	Needed	6	11	15	32
	Vital Need	3	5	8	16
Total		23	34	42	99

4.6.4 Short Term Need Analysis to Balance Salaries and Wages Expense * Availability

Short term need analysis to pay salaries and wages in comparison of availability of short term financing is shown in the above table short term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 4 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 45 respondents are having the perception that the short term financing from financial institutions are not available though among them 28 respondents are in the need of short term financing. Out of 99 respondents 40 respondents are just unaware about the availability of long term financing. Among them 19 respondents are in the need of long term financing.

Table: 4.32 - Short Term Need Analysis to balance the Salaries & Wages Exp * Short Term Availability Analysis to balance the Salaries & Wages Exp					
		Short Term Availability Analysis to balance the Salaries & Wages Exp			
		Available	Not Available	Don't Know	Total
Short Term Need Analysis to balance the Salaries & Wages Exp	No Need At-all	5	8	13	26
	May be Needed	5	9	8	22
	Little Need	0	12	8	20
	Needed	2	5	6	13
	Vital Need	2	11	5	18
Total		14	45	40	99

4.6.5 Short Term Need Analysis to Purchase Raw Material * Availability

Short term need analysis to purchase Raw material in comparison of availability of short term financing is shown in the above table short term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 20 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 32 respondents are having the perception that the short term financing from financial institutions are not available though among them 25 respondents are in the need of short term financing. Out of 99 respondents 38 respondents are just unaware about the availability of long term financing. Among them 27 respondents are in the need of long term financing.

Table: 4.33 - Short Term Need Analysis to purchase Raw Material * Short Term Availability Analysis to purchase Raw Material					
		Short Term Availability Analysis to purchase Raw Material			
		Available	Not Available	Don't Know	Total
Short Term Need Analysis to purchase Raw Material	No Need At-all	5	4	8	17
	May be Needed	4	3	3	10
	Little Need	6	12	6	24
	Needed	11	8	11	30
	Vital Need	3	5	10	18
Total		29	32	38	99

4.6.6 Short Term Need Analysis to Arrange Medications * Availability

Short term need analysis to purchase Medication in comparison of availability of short term financing is shown in the above table short term financing need has been taken on a left side of the table row wise and its availability is being measured column wise. The comparison shows out of 99 respondents, 18 are in the need of the long term loan and they also know about the availability of the financing. Out of 99 respondents 29 respondents are having the perception that the short term financing from financial institutions are not available though among them 22 respondents are in the need of short term financing. Out of 99 respondents 41 respondents are just unaware about the availability of long term financing. Among them 32 respondents are in the need of long term financing.

Table: 4.34 - Short Term Need Analysis to arrange the medications * Short Term Availability Analysis to arrange the medications					
		Short Term Availability Analysis to arrange the medications			
		Available	Not Available	Don't Know	Total
Short Term Need Analysis to arrange the medications	No Need At-all	6	2	6	14
	May be Needed	5	5	3	13
	Little Need	2	10	4	16
	Needed	13	9	11	33
	Vital Need	3	3	17	23
Total		29	29	41	99

CHAPTER # 05

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The findings of the study conclude that there is clear a need of long term financing for the installation of latest plants and machinery, rather doing investment in the purchase of factory equipments/tools. This also shows that agriculture sector has not been fully mechanized and most part of the sector is using medieval instruments for cultivations and harvesting. However, analysis also found that there is a need by farmers for long term financing for supporting their fixed capital requirements over the period of time. The study also concludes that majority of the farmers supporting their family and siblings on the day to day earning basis and has had lack resources to expand their agricultural business and activities. As small financing companies or specialized banks providing short term loans, hence more than 50% of the respondents were of the opinion for long term financing should be provided for their business expansion, which also able many of these not in the region but also internationally.

The research study also concludes that the farmers are satisfied with the current transport and delivery mechanism of agricultural good to different cities, districts and provinces and very few of them are in the need of short term financing for the logistics system. There is also a need for short term financing for the training and development of staff as well as to equip them with the latest technology for efficiency and improvement in the agricultural processing. There is also a need of short term loan financing to match the day to day or weekly expenses, purchase of raw material, medication arrangement and salaries of the staff members, as the agri business is mostly seasonal and thus it is quite difficult for the small farmers to manage their resources cash flows.

The study found that majority of the farmers and livestock people are not aware about the long term financings being offered to them for the purchase of large machinery, tractors, plants, equipments and tools by the Islamic banks. They are also of the opinion that not any Islamic bank is providing long term loan facility for the expansion of their businesses and to support their marketing and transportation mechanism, which indicates the low awareness level among the people regarding the Islamic banking products. Such similar awareness level is shown in regard to the Islamic banks short term financing regarding the availability of loan for day to day working capital requirements and for medication purposes.

The research also found that 58.6% farmers don't use short term credit facility from the banks and 64% don't have long term credit facility. More than 70% of the respondents don't ever open an account from the banks to take loan or for deposit their savings. The reason behind this is that they think likewise conventional system; Islamic banking system is not as per the Shariah guidelines. Some farmers believe that the terms and conditions being posed by the banks for enjoying their facilities are highly difficult to meet. Few are of the opinion of lengthy and difficult procedures of the banks.

The alpha value of the reliability analysis is above 0.80 ($\alpha = 0.85$) which shows good reliability of the research instrument. The findings of one sample t-test found that under long term financing, the need for installation of plant and machinery, for purchasing factory equipments, and expansion of a business received significance level of 0.70, 0.21 and 0.21 respectively. All these are insignificant. The last item under long term financing analysis was competing internationally which secured significant value 0, which certainly shows that farmers need long term financing to compete internationally. Under short term financing, the need for transportation, hiring trained staff, for operational cost, purchasing raw material and arranging

the medications secured level of significance of 0.02, 0.06, 0.085, 0.10 and 0.01 respectively. Need for transportation received 1.5% significance level with minus t value which shows that they don't need any loan for transportation at all.

5.2 Recommendations

The research study like to propose some recommendations to better understand the problem statement and objectives under the light of the conclusion reached in the previous section of chapter 5.

The research study recommends that banks, especially Islamic banks market their short term and long term financing products among the farmers and agri businessman so that they become aware of the available products in the market. The Islamic banks also change customer's viewpoint in understanding the difference between the typical conventional and Shariah complaint financing and bank management should provide such facility to these farmers on the rental based mode as well with partnership and trade based modes. Besides that banks start marketing campaign among the urban areas about their credit facilities related to agri business expansion and to educate them to compete internationally.

The findings of the study also recommends that there is a need of long term financing for the installation of plants and machinery, rather doing investment in the purchase of factory equipments/tools. So this must be kept focused by the Islamic banks to gain more share in the banking industry. There is also a need for short term financing for the training and development of staff as well as to equip them with the latest technology for efficiency and improvement in the agricultural processing and Islamic banks and government should organize educational awareness seminars and events for such purpose.

Banks should also try to minimize their lengthy documentation before opening the accounts and regulations/terms and conditions for granting the credit facility to the farmers.

5.3 Future Implications

This research will assist Islamic bankers in better understanding the needs of short term and long term financing of the agri businessman and farmers in the future to capture the highest market share in the agricultural sector of Pakistan. The research findings are expected to be useful to the financial institutions, managers as well as practitioners in the area of investment and financing decision-making. This study measures only small and medium agri financing needs of the sector. As there are various methods and criteria available, the research studies suggest that there is a lot of potential in the sector which can also be achievable by educating and creating awareness among the farmers.

5.4 Research Limitations

The financial constraint was one of the biggest constraints for this study as it was difficult to manage the research work without any proper funding. Further, it is hard to get response from the target population as majority of them are illiterate and have very less know how about the English language and also many respondents were not willing to answer the research questions.

CHAPTER # 06

REFERENCES

Awan, A. G. (2009). Comparison of Islamic and conventional banking in Pakistan. *Proceedings 2nd CBRC, Lahore, Pakistan*.

Ahmad Kaleem, Rana Abdul Wajid, (2009) "Application of Islamic banking instrument (Bai Salam) for agriculture financing in Pakistan", *British Food Journal*, Vol. 111 Iss: 3, pp.275 - 292

Adam, B.E. and S.B. Ahmed. 2005. On the experience of Islamic agricultural finance in Sudan: challenges and sustainability. *Islamic Econ.* 18:63-65.

Bashir, A., & Hassan, M. (2004). Determinants of Islamic banking profitability. In *ERF paper, 10th Conference*.

Bashir, A. M. (2003). Determinants of Profitability in Islamic Banks: Some Evidence from the Middle East. *Islamic Economic Studies*, 11(1), 31-57.

Belongia, M. T. (1986). Estimating exchange rate effects on exports: a cautionary note. *Federal Reserve Bank of St. Louis Review*, (January 1986).

Bader, M. K. et al. (2008). Cost , Revenue and Profit Efficiency of Islamic versus Conventional Banks:International Evidence using Data Envelopment Analysis. *Islamic Economics Studies*, 15(2).

Baas, T., & Schrooten, M. (2006). Relationship banking and Agriculture: a theoretical analysis. *Small Business Economics*, 27(2), 127-137.

Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking & Finance*, 13(1), 65-79.

Capie, F., & Billings, M. (2001). Profitability in English banking in the twentieth century. *European Review of Economic History*, 5(3), 367-401.

Dowd, K., 1992. Optimal financial contract. *Oxford Economic Papers* 44 (October), 672–693.

Haron, S. (2004). Determinants of Islamic bank profitability. *The Global Journal of Finance and Economics*, 1(1), 11-33.

Fraser, D. R., & Rose, P. S. (1971). More on Banking Structure and Performance: The Evidence from Texas. *Journal of Financial and Quantitative Analysis*, 6(01), 601-611.

Fraser, D. R., Philips, W. and Rose, P. S. (1974), "A Canonical Analysis of Bank Performance", *Journal of Financial and Quantitative Analysis*, Vol. 9, p. 287-295.

Government of Pakistan, 2008. Economic Survey of Pakistan. Ministry of Finance, Economic Advisor's Wing, Islamabad, Pakistan.

Government of Pakistan, 2012. Economic Survey of Pakistan. Ministry of Finance, Economic Advisor's Wing, Islamabad, Pakistan.

Hubbard, A., 1998. Capital-market imperfections and investment. *Journal of Economic Literature* 36 (1), 193–225.

Hester, Donald D. and Zoellner, John F. (1966), "The Relation between Bank Portfolios and Earnings: An Econometric Analysis.", *Review of Economics and Statistics*, Vol. 48 (November), 372-386.

Haslem, John A., (1968), "A Statistical Analysis of the Relative Profitability of Commercial Banks", *Journal of Finance*, Vol. 23, p. 167-176.

Heggsted, Arnold A. and Mingo, John J. (1976), "Price, Non-prices, and Concentration in Commercial Banking", *Journal of Money, Credit, and Banking*, Vol. 8 (February), p. 107-17.

Heggsted, Arnold A., (1977), "Market Structure, Risk, and Profitability in Commercial Banking", *Journal of Finance*, Vol. 32, p. 1207-1216.

Iqbal, M., & Molyneux, P. (2005). *Thirty Years of Islamic Banking*: Palgrave Macmillan.

Iqbal, Z. 2007. Challenges facing Islamic financial industry. *J. Isl. Econ. Banking and Finance (JIEBF)* 3:1-14.

Kwast, Mayron L., and John T. Rose (1982), "Pricing, Operating Efficiency, and Profitability among Large Commercial Banks", *Journal of Banking and Finance*, Vol. 6, No 2 (June), p. 233-254.

Khan, M. M., & Bhatti, M. I. (2008). Development in Islamic banking: a financial risk-allocation approach. *Journal of Risk Finance, The*, 9(1), 40-51.

Khattak, N. A., & Kashif Ur, R. (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management*, 4(5), 662-671.

Kline, P. (1986). *A handbook of test construction: Introduction to psychometric design*: Methuen.

Liao, Z., & Wong, W. K. (2007). The determinants of customer interactions with internet-enabled e-banking services. *Journal of the Operational Research Society*, 59(9), 1201-1210.

Mullineaux, D. J. (1978), "Economies of Scale and Organizational Efficiency in Banking: A Profit-Function Approach", *Journal of Finance*, Vol. 33, p. 259-280.

Molyneux, P. and Thornton, J. (1992), "Determinants of European Bank Profitability: A Note", *Journal of Banking and Finance*, Vol. 16, No. 6, p. 1173-1178.

Mitchener, K. J. (2004). *Bank supervision, regulation, and instability during the Great Depression* (No. w10475). National Bureau of Economic Research.

Meyer, J.R., Kuh, E., 1957. *The Investment Decision*. Harvard University Press, Cambridge, MA.

Myers, S.C., 1984. The capital structure puzzle. *Journal of Finance* 39 (July), 575–592.

Qureshi, Sarfraz Khan, and Akhtiar H. Shah (1992) A Critical Review of Rural Credit Policy in Pakistan. *The Pakistan Development Review* 31:4, 781–801.

Rizov, M., 1996. The problem of collateral in conditions of underdeveloped land (factor) markets in the transitional economies of CEECs. Unpublished Master's thesis, Wye College, University of London.

Swinnen, J.F.M., 1994. In: Schmitz, A., Moulton, K., Buckwell, A., Davidova, S. (Eds.), *Privatization of Agriculture in New Market Economies: Lessons from Bulgaria*. Chapter 4. Kluwer Academic Press.

Stiglitz, J., 1993. Incentives, organizational structures and contractual choice in the reform of socialist agriculture. In: Braverman, A., Brooks, K., Csaki, C. (Eds.), *The Agricultural Transition in Central and Eastern Europe and the Former USSR*. World Bank, Washington D.C.

Sufian, F., & Parman, S. (2009). Specialization and other determinants of non-commercial bank financial institutions' profitability: Empirical evidence from Malaysia. *Studies in Economics and Finance*, 26(2), 113-128.

Smirlock, M. (1985), "Evidence on the (Non) Relationship between Concentration and Profitability in Banking", *Journal of Money, Credit and Banking*, Vol. 17, p. 69-83.

Steinherr, A. and Huveneers, C. (1994), "On the Performance of Differently Regulated Financial Institutions: Some Empirical Evidence", *Journal of Banking and Finance*, Vol. 18, p. 271-306.

Szabo, M., 1997. Policies for the development of the agricultural finance system: focusing on the Hungarian experiences. A paper presented at the Expert Meeting on Agricultural Finance in Transitional Economies, OECD, Paris, February 18-19.

Saeed, Q., I. Nabi and R. Faruquee, 1996. *Rural finance for growth and poverty alleviation*. International Food Policy Research Institute (IFPRI). Policy Research Working Paper No. 1593. Washington DC, USA.

Sadr, K., M.A. Kafaie and B. Haidari. 2006. *Islamic agricultural finance and growth*. Available online at [http://www.irpds.com/FileEssay/eghtesad-1387-8-29-ghp-c\(8\).pdf](http://www.irpds.com/FileEssay/eghtesad-1387-8-29-ghp-c(8).pdf)

Schmith, B. S., Specialist, I. T., & Administration, I. T. (2007). *Islamic Banking Experiencing Rapid Growth*, 9–11.

- Sufian, F. 2007. The efficiency of Islamic banking industry: a non-parametric analysis with non-discretionary input variable. *J. Islamic Econ. Stud.* 14(1):53-78.
- SBP. 2010. State Bank of Pakistan. *Islamic Banking Bulletin*, Vol.5, No.3, September 2010.
- Tan, Y., & Floros, C. (2012). Bank profitability and inflation: the case of China. *Journal of Economic Studies*, 39(6), 4-4.
- Tan, Y., & Floros, C. (2012). Stock market volatility and bank performance in China. *Studies in Economics and Finance*, 29(3), 211-228.
- Tybout, J.R., 1984. Interest controls and credit allocation in developing countries, Part 1. *Journal of Money, Credit and Banking* 16 (4), 474–480.
- Usmani, M.T. 2002. *An introduction to Islamic finance*, Vol. 20. Brill Academic Pub.
- Von Pischke, J. D., & Mundial, B. (1991). *Finance at the frontier: Debt capacity and the role of credit in the private economy* (pp. 99-110). Washington, DC: World Bank.
- Vogt, D., 1978. Broadening to access credit. *Development Digest*, 16: 25-32.
- Wilson, R. 1991. Islamic Financial Instruments. *Arab Law Quarterly* 6:205-214.
- Yusuf, M., 1984. Farm Credit Situation in Asia. Asian Productivity Organisation, Tokyo, Japan, 455–494.
- Yousefi, M., Abizadeh, S., & McCormick, K. (1997). Monetary stability and interest-free banking: the case of Iran. *Applied Economics*, 29(7), 869-876.
- Zuberi, Aleem, & Malik. (1991). Application of islamic banking instrument (bai salam) for agriculture financing in pakistan ." *British Food journal* , 1
- Zuberi, Habib A. (1989) Production Function, Institutional Credit and Agricultural Development in Pakistan. *The Pakistan Development Review* 28:1, 43–56.
- Zaidi, S.A. 2005. *Issues in Pakistan's Economy*, 2nd Ed. Oxford University Press, Karachi, Pakistan.

APPENDIX

Appendix – A (Questionnaire)

This research is designed to investigate the internal variables of Islamic banks to enhance their profitability and financing in Pakistan. The study seeks the information from agri-businessmen to investigate the above mentioned research topic. Mr. Asim Shahzad is MS scholar in University of Management and Technology (UMT), Lahore campus and principal investigator of this research for completion of this MS final Dissertation. It is purely academic exercise and all the requested information are of general nature and will only be used for the academic purpose.

Please Rate your different financial requirements against your need level and available facilities to cater these needs.

Sr. No.	Factors	Rate your agreements as 1 = no need at all to 5= highly needed					Rate availability of such loan facility by Islamic banks		
Long-term Investment needs analysis									
1	We feel need of external financial sources (loan), for installation of Plants/Machinery.	1	2	3	4	5	Available	Not available	Not aware
2	We feel need of external financial sources (loan), to purchase factory Equipments/Tools (harvesting and cultivating tools, processing of food items etc).	1	2	3	4	5	Available	Not available	Not aware
3	We feel need of external financial sources (loan), for the expansion of agri-business.	1	2	3	4	5	Available	Not available	Not aware
4	We feel need of external financial sources (loan), to compete Internationally.	1	2	3	4	5	Available	Not available	Not aware
Short-term investment need analysis									
5	We feel need of external financial sources (loan), for transportation & delivering agri-goods.	1	2	3	4	5	Available	Not available	Not aware
6	We feel need of external financial sources (loan), hiring the Trained staff & technology.	1	2	3	4	5	Available	Not available	Not aware
7	We feel need of external financial sources (loan), to balance the Salaries & Wages Exp (of farmers, facilitators and employees etc).	1	2	3	4	5	Available	Not available	Not aware
8	We feel need of external financial sources (loan) to purchase Raw Material (Seeds, eggs, animal's infant etc)	1	2	3	4	5	Available	Not available	Not aware
9	We feel need of external financial sources (loan) to arrange the medications and other treatments facilities for respective field of agriculture.	1	2	3	4	5	Available	Not available	Not aware

- A) Do you have short term loan/s? Yes No

B) If yes, How many short-term loans you have: 1-2 3-4 More than 4
- A) Do you have long-term loan/s? Yes No

B) If yes, How many long-term loans you have: 1-2 3-4 More than 4
- How many bank accounts you have: 1-2 3-4 More than 4
- With how many banks you are currently dealing: 1-2 3-4 More than 4
- A) Do you like taking loan from banks? Yes No

B) If no, what is/are the reason/s?

Religious So many formalities Complexities

Tight conditions Non-cooperative staff Any other _____
- What type of contract do you want with Islam Bank?

1= Highly Like and 5= Highly Dislike

Sr. #	Type of Contract					
1	Rental	1	2	3	4	5
2	Partnership	1	2	3	4	5
3	Trading	1	2	3	4	5


Appendix – B (Descriptive Statistics)

One-Sample Statistics				
Items	N	Mean	Std. Deviation	Std. Error Mean
Long Term Need Analysis for installation of Plants/Machinery.	99	2.9495	1.31222	0.13188
Long Term Need Analysis to purchase factory Equipments/Tools	99	2.8485	1.18978	0.11958
Long Term Need Analysis for the expansion of agri-business.	99	3.1515	1.19833	0.12044
Long Term Need Analysis to compete Internationally.	99	3.8485	1.28065	0.12871
Short Term Need Analysis for transportation & delivering agri-goods.	99	2.6263	1.50228	0.15099
Short Term Need Analysis hiring the Trained staff & technology.	99	3.2424	1.27848	0.12849
Short Term Need Analysis to balance the Salaries & Wages Exp	99	2.7475	1.44521	0.14525
Short Term Need Analysis to purchase Raw Material	99	3.2222	1.33673	0.13435
Short Term Need Analysis to arrange the medications	99	3.3838	1.35305	0.13599

Appendix – C (Similarity Report)

Turnitin Originality Report


Thesis Similarity Report

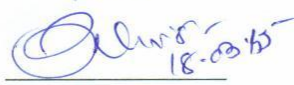
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