Abstract

Purpose - The basic purpose of this research paper conducted is to report the findings of this experimental study conducted in Bahawalpur region, about the role of Islamic banking in agriculture sector from the users and non-users (users of conventional banking) of Islamic banking.

Design/methodology/approach - This descriptive and qualitative research is conducted and focuses on two main groups of banking customer’s users and non users of Islamic banking and also informal interview with managers of some banks. A survey questionnaire was developed that subsequently get response from 120 respondents. Hypothesis analysis is the main tool of analysis in which mean, standard deviation; variance and chi-square tests are applied using SPSS 16.0.

Findings - After the through study of body of knowledge we find that there is significant relationship between Islamic banking and agriculture sector. Islamic banking is providing easy terms of financing like Ijarah, Diminishing musharaka, Murabaha, salam and bai salam and similarly providing different types of working capital like Murabaha, Musawamah, Salam, Muzara’a. These terms of financing increase the asset ownership, yield and income of farmers. Islamic banking is not providing any financing for irrigation system and farmers are facing problem of credit standing and problem of collateral.

Practical Limitations/Implication – Most of the concerned articles are taken from the Pakistan, Malaysia, etc. there was limited time for conducting research and receiving response from respondents. The sample size is of small size subsequently of 120 respondents and applicable to Bahawalpur region. As this result is implemented to Bahawalpur region only so therefore pilot study to whole Pakistan is suggested.

Originality/Value - The aim of this paper is to provide and make attention toward of role of Islamic banking the Bahawalpur region of southern Punjab, Pakistan as the previous studies
were country wide. This paper will help to conduct same type of researches in other regions of Pakistan.

**Keywords** - Role of Islamic banking, Agriculture sectors.

### Introduction

Islamic banking matters a lot in Pakistan because of a huge numbers of Islamic residents in Pakistan. In the middle of 1980’s the concept of Islamic Financial System was introduced. All over the world 300 about Islamic institutes are working. Not only banks also other financial markets adopt the practices of Islamic banking. The acceptance of Islamic banking is increasing in Muslim countries also all over the world due to good practices introduced by Islamic financial system. Growth rate of Islamic banking per year is about 10 to 15%. As our study is concerned to role of Islamic banking in agriculture developed so we gathered data through primary sources. Through conducting a pilot survey we gathered basic information and made a questionnaire based on data. Our population of interest was all the bank holders in Bahawalpur. Islamic banking increases the satisfaction level of farmers because they are trying to avoid Riba and Islamic banking already working under this approach. Finance problem of farmers can be minimized so our study explores the influence of Islamic banking in agriculture sector development. There is an extensive discussion in literature on the influence of Islamic banking in agriculture sector for examples guidelines provided by State Bank of Pakistan about Islamic modes which can help farmers in their agriculture activities. Through our research work we have found some variables named as technological changes, irrigation system, target pricing, low and uncertain yield, working capital needs and term financing needs related modes which measure the impact of Islamic financial system assistance on agriculture sector. During the research work we surveyed about 20 to 25 banks in order to check the validity of our variables. people’s opinion varies person to person but in this research we found the almost similar answers. Finally we found that there is positive relationship between Islamic banking and agriculture sector. Results are analyzed using statistical techniques and results are interpreted. Moreover recommendations are also given for further research.

### Literature Review

**Irrigation system:**

For agriculture activity on additional surface irrigation depend on the average annual rainfall is less than 100 –300 mm rang per year in the projected area (Middlebrook, Mustafa, Flower, 2007). Potential evaporation, temperature and annual rainfall 160mm per year makes agriculture without irrigation (Ensink, Munir & Aslam, 2002). Annual average rainfall is 200 mm in the district of Bahawalpur (adeeb, 2007). Quality and frequencies of irrigation has great impact on crops transpiration (Smets, 1996). After 30 to 40 days sowing provide optimum level of irrigating crops, lower or higher duration except this is useless because rainfall average is 250 to 300mm (Khan, Rashid & Farooq, 2011). Unfit ground water for irrigation that areas feed by perennial canal and non-perennial canal feed good water for
irrigation areas (Middlebrook, Mustafa & Flower, 2007). Fields having low quality of underground water located in perennial watercourse (fordwah-62) and other fields located in the non perennial watercourse (Azim-111) (Smets, 1996). 480 watercourse established against the 684 watercourse listed in the project, 301 contributed 44% of project in Bahawalpur district (Asian development bank, December 2008). Pakistan irrigation infrastructure maintain by the 300 dollar investment and 90% food crops requirement maintain by irrigated agriculture, remaining 10% provided by (rain fed) barani (health & welfare conversation societies, Feb 2007). The irrigation system of Bahawalpur division contain link canal like sidhnai mailsi link (from Ravi to Sutlej) 10000 cusecs, balloki sulaimanke link (from Ravi to Sutlej) 6500 cusecs, taunsa punjnad link (from Indus to Chenab) 12000 cusecs (Middlebrook, Mustafa & Flower, 2007). Irrigation should be must manage because monitoring of irrigation has positive effects on soil fertility otherwise irrigation has adverse effect on soil (Getaneh, Deressa & Negassa, 2007). Excess of irrigation has negative effect; soil solution migrates and accumulated minerals enhanced ion exchanges which provide acidification (Muller & Rogasik, 1991).

Change in technology:

Fastest agriculture growth depends on the technological changes. Technical efficiency, inputs improvements, funds and better infrastructure and farmer capabilities are revolution factors in agriculture achieved by the technological changes (Everson, 2002). To fulfill the demand of crops productivity can be increased by improvements in seed, technical machinery for cultivation, betterment in irrigation and mechanical inputs (Aslam & Tandojam, 2000). Biotechnology has been great impact on agriculture of developed countries and least impression under developed countries. Technology can reduce poverty level by direct way (welfare and adoption innovation in production) and indirect way (food price, employment and wages) (Janvry & Sadoulet, 2001). Organic fertilizers replaced by the chemical or synthetic fertilizers contain nitrogen, phosphorus and potassium because through these fertilizers metabolic reaction takes improved soil potential growth, improved quality of seed and increase quantity of food (Romanowski, 1997).

Working capital need of farmers and Islamic banking:

Working capital is required by farmers to meet the need of day to day expenses of crop and non-crop activities such as purchase of seeds. Fertilizers, pesticides, water and electricity needs etc. loan is provided to farmer for period of 6 to 15 months Islamic modes of finance that are suggested by SBP for meeting these expenses are Murabaha, Musawamah, Salam and Muzara’a (SBP, 2009). In Islamic nations Murabaha is most commonly used mode of finance to avoid riba. It is sale contract in which seller clearly mention cost incurred by him on commodity and sell to it other person by adding a profit on which both agree. In case of any difficulty in direct sale and purchase an agent is employed that first purchase the commodity on behalf of financer and sell it to client by will of financer. Goods must be in ownership of seller and must be real and before sale risk associated with commodities remain with seller. When the goods are purchased by client risk transferred to him and these goods cannot be returned to bank and sold to another party for more credit (SBP, 2003). It’s a partnership contract between a customer and an Islamic bank institution in which customers play the part as a manager of funds and projected to do the best of his ability to turn the capital provided to him into profit (BNM/RH/GL, 2010). For Musawamah all conditions related to Murabaha are valid the only
difference is buyer don’t know the actual cost incurred by seller on commodity. Goods must be in ownership of seller and must be real and before sale risk associated with commodities remain with seller. When the goods are purchased by client risk transferred to him and these goods cannot be returned to bank and sold to another party for more credit (SBP, 2003). It is contract between buyer and seller in which buyer make an advance payment of goods that will be delivered to him at some future date at the time of making of contract. In Salam the quantity, quality, time and place are discussed at time of formation of contract to avoid disputes in future. Buyer cannot force to seller to purchase the goods and sell the products to another person before taking the possession. Bank can enter to another contract as a seller without any restriction and can impose penalty on seller in case of late delivery of commodities. And client is bound to pay the penalty (SBP, 2003). An agreement for sale of agriculture produces for which payment is made in advance but delivery is made at some future date. Under Salam farmers have an opportunity either they want to get single or multiple Salam. In single Salam they get payment at once and in case of multiple Salam payment is made when they need funds (Hasnain & Ahmed, 2011). There are two ways for cultivation of land one owner of land cultivate land by him or allow some other person to cultivate it. When owner gives the right his land to another person it is called Muzara’a. There are two types of tenancy one is share tenancy and the other is cash tenancy. In share tenancy the owner of land receive a portion of produce from the cultivator as agreed upon by contract and in case of cash tenancy the owner receives a fixed amount of rent from the cultivator (Chaudhry, 2003). It’s a kind of musharaka or gives the concept of partnership in land in which two or more parties enter into an agriculture operation. It takes many forms either one party provides land and other labor or in case of three parties on provides inputs and other two provide labor and land. This contract must be among parties concerned and all terms and conditions should be clearly mentioned such as duration of contract method of distribution of land etc (A. Gulaid, 1995).

Term financing modes of Islamic financial system for crop sector activities:

Term is financing by Islamic banks for meeting medium and long term financing needs of customers. Basically loans are provided to farmers for purchase of fixed assets like machinery, equipment vans and tractors etc. Modes of finance for meeting the financial need of crop sector of agriculture are Ijarah, diminishing musharaka and Murabaha. Medium term loans are provided for period of 2 to 3 years and long term loans up to ten years or more (SBP, 2003). It’s a contract between two parties in which one party gives the right of use of its asset to another party without delivering the ownership. One is called lesser and other lessee. The period for which asset is leased and price of lease is decided at the time of formation of contract also the duties and benefits of both parties (A. Gulaid, 1995). Diminishing Musharaka is a type of musharaka in which financer and client enter in a co-ownership contract for purchase of some property or equipment. In which 80% of price is paid by financer and the remaining 20% is paid by client. The part of owner is divided in further units. Client uses property or equipment and pays a rent to financer for its use. Client purchases the units of financer one by one increasing his part on property and become the full owner of property or equipment by turning financer share to zer (Ahmed, 2009). Musharaka is joint venture in which both parties to venture share profit and loss. Instead of charging interest financer gets a portion of total profit that is decided at time of formation of contract. Loss is shared on the basis of contribution made
(Mohsin, 2005). It is a partnership in which 2 or more parties join their capital and labor resources and share profit and have equal rights and duties. Musharaka is widely used for agriculture financing. Banks provide fixed assets and farmers contribute through labor and land get they retain some proportion of profit for managing work and share the remaining part of profit according to their part in equity (AL-Harran, 2003).

Low and uncertain yield:
Factor of Very high or low Temperature, relatively change in humidity of air, effect of solar radiation, other issues like biotic and a biotic stress, drought and factor of Very low or high Rainfall are the main causes of low and uncertain yield (Ahmad, 2007). The Economic Survey of 2007-2008 of Pakistan shows that the performance was very poor during these years regarding agricultural sector and its growth rate was only 1.5% which was less against the targeted 4%. This poor performance was due to many miscellaneous causes in which mainly is the high rainfall in the month of May 2007, and another main issue was the increase in temperature in the month of August and September 2007 and another problem arises was the availability of water for the agriculture sector (Pakistan Economic Survey, 2007-08). Inadequate education & Health regarding agriculture sector, lack of availability of Agricultural financing and loan, unavailability of proper agriculture inputs, and variation in the Soil quality like gypsum and improper and unequal Ratios of Nitrogen and Phosphorus, changes in Markets Infrastructure, no proper crop protection, and wrong time of Sowing crop are the main causes of and low and uncertain yield (Iqbal & Ahmad, 1999). Due to decrease in level of underground water and unavailability of agriculture water the crops of Pakistan are highly affected. Decreased crop yields has resulted in shortage of food security and no further improved rural livelihoods. This problem arise other so many problems in which main problem area is over drafting of water, falling water level and affect the quality of underground water (Qureshi & McCornick, 2009). Water and inputs are the important part of any agriculture product. In major areas accessible water is not using properly by farmers and similarly they are not using proper inputs like fertilizers. They are still using inputs traditionally. There is no proper use of fertilizer use efficiency system and is very low. Another major issue is the uncertain rainfall (Mohammad & Ahmad, 2001).

Target price changes:
The comparative advantage refers to a comparative cost advantage in producing commodities and explains observed trade patterns according to country differences in resource endowments, investment patterns, technology, human capital and managerial expertise, infrastructure and government policies. While, the term competitiveness encompasses not only relative prices and the ability to market but also quality differences, production and distribution costs, and production and distribution efficiency. Due to increase in the shortage of water in agriculture element of risk is increasing in farm production. Due to these crises industries using these agriculture products are also in trouble due to rising problem of economical imports from other countries, unproductive working hour, and continuously changes in raw materials quality and quantity (Kuchiki, 1990). In Asia due to absence of technological advances and green revolution the target prices of agriculture product are not fixed and the main reason for poverty in these areas. By utilizing it the incomes and wages of farmers can be increased and their livelihood can be increased (Timmer, 1988). In a new agreement set by The World Trade
Organization which is on Agriculture product in which trade liberation, eliminating the trade barriers and no intervention by any government are the main points. This will increase the volume of trade of agriculture product and countries producing and have advantage in particular product can import and get their target prices (Kuchiki, 1990). There are problems due to which farmers are not able to adopt modern technology, these problems are low income and unavailability of insurance for farmers this lead to risk factor involve in productivity. So risk adverse farmers used traditional methods for cultivation they are against risk element and think it is risk increase income as a loss of welfare. (Kuchiki, 1990; Anderson & Hazell, 1989; Thirwall and Begevin, 1985; Newberry & Stiglitz, 1981; Johnson, 1975).

Credit use in agriculture sector:
Credit standing means what the position of a person to repay the debt either he have some assets or not and what the financial position of that person and how much strong his previous record. Corporation after check these all things make transactions with farmers. Farmers avoid from Pakistan financial institution because guarantee for repayment of loan is not available which we can accept and ownership title is not complete. The reason of avoid interest base loans also religious believes. Its alarming situation in Pakistan where 95% people are Muslim agriculture loan is not offering under Islamic principles. Agriculture credit plays a vital role in economy. (Zuberi, Aleem, & Malik, 1989, 1990, 1991). In 1941 US credit rating which is first time effect is increase in number of people and their confidence also increased in Islamic banking which less violent in built system. Its sub variables will be number of people which can be increase and confidence also can be increase by strong credit standing of an organization. (Comment AND ANALYSIS, 2011). About agriculture sector its famous is that as cash constraint. Historically, financial institutions are not willing to lend to small farmers due to their inability to provide security pledged as a guarantee for the repayment of loan, higher default risk and transactions cost which are high associated with small loans (Adams & Fitchett, 1992). The other thing which is very tough for small farmer’s higher interest rate (Coleman, 2006). In ztbl its found that increase in formal credit by 10%. Productivity and agriculture production cost by 1% and consumption increase by only 0.04%. Main purpose of credit hiring labor and purchasing fertilizer (Khandker & Faruqee, 2003). Informal lenders provide credit to the rural households for development of the countries (Vanzyl, Binswanger, & Thirtle, 1995). Near about for 80% of cultivators who lived in Pakistan participate in market of credit and 40% cash controlled by themselves (World Bank, 2004). Provision of credit by bank to the farmers directly on behalf of the personal guarantee as per recommendation of mills (Kaleem, 2005). Credit rationing always face by all rural households in Pakistan is near about 17% as a result reduction in value of crop yields by 23% (World bank, Pakistan rural factor markets, 2004). In Bahawalpur area behavior of borrowing loaning take by the big and educated farmers from the formal sector. There is many people for take the loan so corruption occurring that’s why informal loaning exist (Aleem, 1990). Those stakeholders who involve in risky economic activity in order to sharing profit and loss with Islamic banks and Islamic investment relies on basic principle profit and loss sharing. They can savings in “investment account “bring up-and-down return. When a period ends profit has to share bank with the depositors who involve in risk of investment. Actually Islamic banks not share profit but transfer the wealth to shareholders but the amount of wealth is income which is before of
funding. (HASSOUNE, 2006). We founded Literature review availability of credit is very important timely which help to increase in agriculture productivity and efficiency.

Effective use of loan:

Effective use of loan actually means loan use where in an agriculture sector for the betterment and development of the sector which leads to increase in production which can be helpful in increase in export and increase in earnings. With the effective use of loan avoid crop from harmful diseases record. Corporation after check these all things make transactions with farmers. Two type of credit farm and non-farm and farm credit have further categories in three types short, Medium and long terms loans. Short term loan attract the farmers when they want to purchase seeds, fertilizer, water and power etc. Long term and medium loans demanded by farmers when they want land formation, land leveling, soil improvement and clearance of extra greenery and tractors and other agricultural instrument which use for the betterment of agriculture. Credit is also necessary for non-farm it is also categories in short, medium and long term loan. Short term for livestock feeding and for expenditure of veterinary. Long and medium use for livestock product shelter, poultry and tools etc. the different variables in it will be use increase in use of advance technology, Increase in production, betterment for live stock. (state Bank of Pakistan, 1962). corruption for taking loan in formal loaning make sure loaning effective it is suggested credit of formal sector rapidly process reduction in cost of transactions.

There is many reasons of imperfectly work in credit market just like falls information. Limitation of resources, scarcity of management and governance. These problems are major in agriculture sector because these imperfection credit market not always well functionality. They characterize on the basis of credit rationing so some farmers fail to get loan even that high interest rate. Agriculture and livestock interlinked with each other and different families practice and interested in irrigation and livestock raises. People in settled area are involved in full time farming and its one third involves in livestock activities. (Agriculture, 2011). Cropped area covered by 63% cotton in Bahawalpur during summer season. Over a period of time farmers demand increase for credit obviously when farmers increased usage of pesticides, fertilizers, mechanization and improved seeds. In the early style farmland earning has bring into existence compare low yield in return get from invest forms. (Marsden, et al., 1986). Rise in agricultural production can be helpful increase incomes, decrease in poverty and also play a vital role in other development (Owens, et al., 2003). Growth started in agriculture sector in eighteenth century and then technological improvement and biological improvement is high. (Birkhaeuser, et al., 1991)
Theoretical Frame Work

Working capital need
- Murabaha
- Musawamah
- Salam
- Muzara’ā

H1: There is significant positive relationship between need of working capital and role of Islamic banking in agriculture development.

Term financing modes
- Ijara
- Diminishing musharaka
- Murabaha

H1: there is positive relationship between terms of financing and role of Islamic banking in agriculture development.

Low and uncertain yield

H1: there is positive relationship between low and uncertain yield and role of Islamic banking in agriculture development.

Credit use in agriculture sector
- Credit standing
- Problem of collateral

H1: There is positive significant relationship between credit use in agriculture sector and role of Islamic banking in agriculture development.

Target prices changes in agriculture development.

H1: There is positive significant relationship between target prices changes in agriculture and role of Islamic banking in agriculture.

Effective use of finance in agriculture development.

H1: There is positive significant relationship between effective use of finance and role of Islamic banking in agriculture development.

Irrigation system irrigation system and

H1: there is positive significant relationship between irrigation system and role of Islamic banking in agriculture development.
role of Islamic banking in agriculture development.

\[ \text{Change in technology} \rightarrow \text{H1: there is positive significant relationship between and role of Islamic banking in agriculture development.} \]
Theoretical Framework

Methodology

Sampling:
The sample size of 120 respondents is taken from the Bahawalpur region, southern Punjab, Pakistan. In this 108 or 90% are male and 12 or 10% are female. The target respondents of research are not well educated so they are provided questionnaire in their own language.

Survey instrument:
A well defined questionnaire was the main survey instrument and in addition to this the informal interview from the banks managers was also a survey instrument. The entire questionnaire was according to design of theoretical framework.
Results and Discussions:

| Variables                                                   | Sample size | Mean  | Std. Deviation |
|--------------------------------------------------------------|-------------|-------|----------------|
| Terms of Financing (ijarah)                                  | 120         | 2.35  | 0.99           |
| Role of Islamic Banking in Agriculture Sector                | 120         | 2.68  | 1.15           |
| Terms of Financing (easy and helpful terms)                  | 120         | 2.57  | 1.00           |
| Low and Uncertain Yield                                      | 120         | 2.61  | 1.02           |
| Changes in Target Prices                                     | 120         | 2.59  | 1.14           |
| Terms of Financing (Diminishing musharaka, murabaha)         | 120         | 2.45  | 0.99           |
| Credit Use in Agriculture (credit standing)                 | 120         | 2.73  | 1.12           |
| Credit Use in Agriculture (Problem of collateral)           | 120         | 2.60  | 1.14           |
| Need of Working Capital (salam, muzara’a)                   | 120         | 2.47  | 1.11           |
| Effective Use of Finance                                    | 120         | 2.33  | 0.97           |
| Change in Technology                                         | 120         | 2.52  | 1.06           |
| Need of Working Capital (Murabaha, Musawamah)               | 120         | 2.42  | 1.06           |
| Irrigation System                                            | 120         | 3.00  | 1.10           |

The mean value of role of Islamic banking in agriculture sector indicates that the respondents are somewhat agree with that there is significant relationship between Islamic bank and agriculture sector. Moreover the results shows that respondents (2.4) are agree that there are easy and helpful terms of financing like Ijarah, Diminishing musharaka and Murabaha. The mean responses of Respondents (2.4) are also agreeing that Islamic banking is also fulfilling the need of working capital like Murabaha, Musawamah, Salam and Muzara’a. The mean response of Respondents (2.6) are also agreeing that in case of low and uncertain yield and changes in target prices of agriculture product leads farmers toward Islamic banking. The mean response of Respondents (2.65) are also agreeing that they are facing problem of credit standing and collateral in order to take finance from the bank. The means response of Respondents (2.33) is also agreeing that banks help them to use their finance in useful and effective way to increase income and yield. The mean responses of Respondents (2.52) are also agreeing that Islamic banks are helping to purchase advance technology and increase assets ownership. The mean responses (3.00) of the respondents show that they are indifferent and have no information regarding Islamic banking is providing any term of financing in irrigation system.

The value of standard deviation of indicates the dispersion of responses from its mean value. The mean dispersion of value of role of Islamic banking is from 0.9730 to 1.1521.
As the chi square test value of terms of financing (37.66), terms of financing (25.38), low and uncertain yield (18.42), changes in target prices (28.36), credit standing (26.99), credit standing (18.09), need of working capital (54.72), effective use of finance (25.89), change in technology (17.16), need of working capital (16.76) is greater than the tabulated value with degree of freedom (16) at 5% significance level the alternate hypothesis is accepted. The chi square value of irrigation system (6.75) is smaller than the tabulated value so the null hypothesis is accepted. The entire hypothesis which indicate or measurable of positive significance role of Islamic banking in agriculture are accepted because Islamic agriculture financing is compatible for that farmers who have knowledge about Islamic agriculture financing and considered under in research sample size. The determinants of hypothesis spreading the well favor conditions of Islamic banking in agriculture development that’s why calculated chi-square is greater than tabulated value and strong relationship level of association of all variables mentioned except irrigation system because there is no proper academia knowledge about irrigation system in farmers mind.
Conclusion

Islamic banking started in Pakistan in 1977-78. Pakistan is one of the countries which want to implement the interest free banking at national level. Islamic banking established with the religious factor for people who always prefer the religious specification in any trade and business. This research paper concludes the role of Islamic banking toward agriculture sector development. The tendency of adoption of Islamic banking in Bahawalpur region is acceptable because some new banks dealing in Islamic established while others conventional banks must have a separate window for Islamic banking. Literature studied of different articles shown that many factors and variables like, technology changes, target price, credit standing, need of working capital, and others determinants provide supportive path to agriculture with help of Islamic banking. Survey conducted shown the perception of Bahawalpur division farmers about Islamic financing is positive. Islamic banking in Bahawalpur has spread but still almost some private banks not providing the agriculture financing, government banks deal with farmer in way of Islamic financing. Theoretical frame work developed shown the impact or influence of independent variable to dependent variable. Hypothesis generated in order to test the relationship between Islamic banking and agriculture. After survey of many banks and by holding conversations with farmers we conclude that some farmers have limited knowledge about Islamic banking to agriculture financing and a few don’t have how know about Islamic banking agriculture financing because they still adopting the landlord system in which farmers get loan and any other financial help from jagirdar of the village or town. Many of farmers and people who related indirectly with agriculture profession understand there is significant role of Islamic banking in agriculture sector.

No doubt the acceptance of Islamic banking in agriculture sector is high but still there is need of some improvements. Banks should have to adopt effective marketing techniques to aware and attract the farmers towards the Islamic banking. Because majority of farmers are villagers and uneducated so they have less knowledge about products and services offered by Islamic banking for agriculture sector. Banks should have to adopt easy procedures and terms for extension of loans to poor farmers.

The evolution of the responses receives through the survey in Bahawalpur measure by using SPSS software and getting results of mean, standard deviation, variance, and chi-square. The mean of all the variables remain above the 2 it means most of the farmers agree with positive relationship of Islamic banking with agriculture and some are indifferent. The deviation of variables from mean remain between 1 and 2 its, means that if some farmers deviate from agree to strongly agree because they think there is strongly high positive role of Islamic banking in agriculture.
Adams, D. W., & Fitchett, D. A. (1992). Application of islamic banking instrument (bai salam) for agriculture financing in pakistan. "British food journal."

Aleem, I. (1990). Application of islamic banking instrument (bai salam) for agriculture in pakistan. Imperfec " British food journal" , 329-49.

Application of islamic banking instrument (bai salam) for agriculture financing in pakistan [Journal] / auth. Marsden T [et al.]. - Lahore : [s.n.], 1986. - British food journal : Vol. 2.

Agriculture forestry fishing hunting [Online] // http://www.allbusiness.com/Agriculture-forestry-fishing-hunting/Agriculture-crop/15747520-1html#ixzzG30Dew3fasss. - december friday, 2011..

Asian development Bank, 1996.

Alam, D. S., NIA, & Tandojam. (2000). Agriculture Technology and Pakistan.

A.Gulaid, D. (1995). Financing Agriculture through Islamic Modes and Instruments. 93.

Ahmad, A.-R. Y. (2009). Islamic Modes of Finance and the Role of Sukuk. Retrieved from QFinance.

Ahmad MD, Turral H, Mash I, Giordano M, Masood Z (2007) Water saving technologies: myths and realities revealed in Pakistan’s rice-wheat systems. International Water Management Institute, Colombo, Sri Lanka (IWMI Research Report 108), 44 pp

AL-Harran, D. S. (2003). Musharakah financing model. Retrieved from Islamic world.net.

Ahmad, A.-R. Y. (2009). Islamic Modes of Finance and the Role of Sukuk. Retrieved from QFinance.

Ahmad, A.-R. Y. (2009). Islamic Modes of Finance and the Role of Sukuk. QFINANCE , 4.

Anderson, Jock R., and Peter B. R. Hazell, eds. 1989. Variability in Grain Yields: Implications for Agricultural Research and Policy in Developing Countries. Baltimore, Md.: Johns Hopkins University Press.

BNM/RH/GL. (2010). Guidelines on introduction of new products for insurance companies and takaful operators. 22.

Chaudhry, D. S. (2003). Fundamentals of Islamic Economic System.

Causality between agriculture and economic growth in a small nation under political isolation [Journal] / auth. Birkhaeuser R, Evenson R and Feder G. - Turkey : [s.n.], 1991. - "International Journal of Social Economics : Vol. 39.

Coleman, B. E. (2006). Application of islamic banking instrument (Bai Salam) for agriculture financing in pakistan. "British food journal, 1612-38.

Causality between agriculture and economic growth in a small nation under political isolation [Journal] / auth. Owens T, Hoddinott J and Kiinsey B. - Turkey : [s.n.], 2003. - " International Journal of Social Economics : Vol. 51.

COMMENT AND ANALYSIS. (2011). Expanding reach of islamic banks inpaperMagazine .

Dr. S.M Alam, N. T. (2000). Agriculture technology and Pakistan.

Evenson, Robert E. (2002) Economic Impacts of Agricultural Research and Extension. Center Reprint No. 578. Economic Growth Center, Yale University.

Gill, K.S. 1992. Wheat response to open pan evaporation based irrigation scheduling on two salt pans in the California Salinas Valley. Communic. inSoil Sci. Plant Anal. 1089-1103.
Getaneh, Deressa, A., & Negassa, W. (2007). Influence of Small scale Irrigation on Selected Soil Chemical Properties. Witzenhausen: Tropentag.

Government of Pakistan (2008). Pakistan Economic Survey 2007-08. Accountancy.

HASSEONUE, A. (2006). Islamic Banks Profitability In an Interest Rate Cycle. INTERNATIONAL JOURNAL OF ISLAMIC FINANCIAL SERVICES. 

Hasnain, S. S., & Ahmed, S. (2011). Salam Based Financing for Farm/ Crop Production Purposes. 11.

Impact of financial liberalization on agricultural growth: a case study of pakistan [Journal] / auth. China agricultural Economic Review. - Karachi : [s.n.], 1962.

Iqbal, M. and M. Ahmad (1999) An Assessment of Livestock Production Potential in Pakistan: Implications for Livestock Sector Policy. The Pakistan Development Review, Vol.38, No.4: 615-628.

Johnson, D. Gale. 1975. “World Agriculture, Commodity Policy, and Price Variability.” American Journal of Agricultural Economics 57, no. 5: 821–28.

Kaleem, A. (2005). Application of islamic banking instrument (bai salam) for agriculture financing in pakistan. "British Food journal , 59-69.

Khandker, S. A., & Faruquee, R. (2003). Application of islamic banking instrument (bai salam) for agriculture financing in pakistan. "British food journal, 197-213.

Kuchiki, Akifumi. 1990. “ The Pricing Mechanism of Primary Commodities since the 1970s.” Developing Economies 28, no. 1: 95–110.

Lysimeteruntersuchungen für Sand, Lehm-, und Lossboden unter einheitlichen Wit- terungsbedingungen. Arch.Acker - Pflanzenbau Bodenkld, Berlin 35,5: 375 - 382.

Muller, S., Hanschmann, A., Heinrich, L., Brix, B., 1991. Sick-erwasser und Nitratauertrag - Lysimeteruntersuchungen für Sand, Lehm-, und Lossboden unter einheitlichen Wit- terungsbedingungen. Arch.Acker - Pflanzenbau Bodenkld, Berlin 35,5: 375 - 382.

MIDDLEBROOK, D. P., OWLER, B. F., & mustafa, I. (2009). AGRO- ECONOMIC SURVEY. Draft.

Mohsin, M. I. (2005). The practice of islamis banking system in sudan. Journal of Economic Cooperation , 52.

Muhammad, S. and B. Ahmad. 2001. Constraints of wheat crop production in under rain fed area: An analysis. Sarhad J. Agric. 17: 263.

Newbery, David M., and Joseph E. Stiglitz. 1981. The Theory of Commodity Price Stabilization: A Study in the Economics of Risk. Oxford: Clarendon Press.

Qureshi, A., McCorrick, P., Sarwar, A., and Sharma, B. (2009) Challenges and Prospects of Sustainable Groundwater Management in the Indus Basin, Pakistan, Water Resource Management. 24,1551–1569, 10.1007/s11269-009-9513-3,

RAHMATULLAHKIAN, ABDURRASHID, MUHAMMADSOHAILKHAN, & MUHAMMADSHADFAROOQ. (2011). DETERMINATIONOFOPTIMUMTIMEOFFIRSTIRRIGATIONFOR. pakistan: SarhadJ. Agric. Vol.27, No.3.

RIFAEE, S. S. (2005). Islamic Banking Myths and Facts. Arab Reform Bulletin . BIBLIOGRAPHY \l 1033 BNM/RH/GL. (2010). Guidelines on introduction of new products for insurance companies and takaful operaters. 22.
Smukalski, M., Rogasik, J., 1991. Vergleichende Untersuchungen zum Nitratgehalt eines lehmigen Sandbodens unter Rotationsbrache, Kornererbsen und Sommergerste sowie zu vor-und nachwinterlichen Nitratrestmengen, ohne und mit Stoppelfruchtanbau. Arch. Acker-Pflanzenbau Bo-denkd., Berlin 35,6: 459-467.

SBP. (2003). Chandigar road Karachi Pakistan.

S BP. (2009). Guidelines on Islamic Financing for Agriculture. (Agricultural Credit Department, Islamic Banking Department, State Bank of Pakistan), 14.

Siddiqui, D. S. (N/A). Islamic Banking: True Modes of Financing. N/A.

Thirwall, A. P., and J. Bergevin. 1985. “Trends, Cycles and Asymmetries in the Terms of Trade of Primary Commodities from Developed and Less Developed Countries.” World Development 13, no. 7: 805–17.

Timmer, C. P. 1988. “The Agricultural Transformation” In H. Chenery and T.N. Srinivasan, eds., Handbook of Development Economics. Vol. 1. Amsterdam: North-Holland, pp. 275-331.

Vanzyl, Z., Binswanger, H., & Thirtle, C. (1995). Application of islamic banking instruments (Bai salam) for agriculture financing in pakistan "British Food journal" World Bank, Pakistan rural factor markets. (2004). British Food journal Zuberi, Aleem, & Malik. (1989,1990,1991). Application of islamic banking instrument (bai salam) for agriculture financing in pakistan." British Food journal, 1