

ISSN 0047-2751

Journal of Rural Development and Administration

Volume XLVI, No. 2 (July - December, 2015)



**Pakistan Academy for
Rural Development, Peshawar - Pakistan**

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Annual Subscription

Pak Rs. 1600 U.S. \$ 30

Price per copy

Pak Rs.1000 U.S. \$ 20

JOURNAL OF RURAL DEVELOPMENT AND ADMINISTRATION

Vol. XLVI, NO. 2

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FOREWORD

It is a great pleasure to present the fresh issue of JORDA. We have been striving to achieve regularity in Publication of JORDA and I can say with a degree of satisfaction that we are progressing in the right direction in this regard. Number of articles being sent to us has increased considerably. Some of them are being published in this issue; others are in the review process for publication in the subsequent issues. I would like to thank the authors for their valuable contributions and encourage researchers to share their studies with us.

The issue comprises five research articles on diverse themes of development. The first article analyzes the effect of formal credit on Agriculture production in district Swat, Khyber Pakhtunkhwa, Pakistan. The researcher illustrates that the farmers who availed the credit facility had more income as a result of considerable increases in their production. The researchers recommend increase in credit facilities to small farmers for enhancing agricultural production and strengthening income of small farmers. The second article examined in detail, the effect of credit risk on shareholder's wealth in Banking Sector of Pakistan. The findings of the study show the non-performing loans as the major indicator of credit risk and conclude that the credit risk has a significant negative effect on the shareholders wealth. The third article is related to the field of marketing and promotion. The researchers examine the relationship of consumers' attitude towards viral marketing in Pakistan via the advertisement through technology tools particularly through internet and mobile phones. The study found a positive direct relationship between independent variables including informativeness, entertainment, incentives, trust and message source credibility with the dependent variable of brand awareness and recommends the rapid adoption of advertisement through propagation of viral messages for promotion of the brands. In the forth paper the researchers review the Appraisal Process for the selection of Community Infrastructure Development Projects. The study analyzes various tools for determining the viability of community based projects and find out that authentic and reliable data of respective communities play an important role in viability of the projects and also recommend proper training for project staff in managing projects. The last paper looks into the post 18th amendment measures for Agriculture Sector Development in the province of Khyber Pakhtunkhwa. The study reveals that delegation of agriculture functions to provinces could not be completed as envisaged in the 18th amendment hindering proper implementation of programmes at the provincial level. The study recommends streamlining of Provincial agriculture department in Khyber Pakhtunkhwa and full integration of functions for smooth functioning of Agriculture sector.

We hope that the issue will add value to the existing knowledge in the field of development in general and rural development in particular.

Mrs. Nighat Mehroze Chishti

Patron

1

The Effect of Formal Credit on Agricultural Production: A Case of District Swat

Alam Zeb¹, Khursheed Iqbal², Muhammad Adil³, Wiqar Ahmad⁴

ABSTRACT

This study aims at examining the impact of agriculture credit on agricultural production (wheat, maize and vegetables) and income of the farmers in District Swat, Khyber Pakhtunkhwa. Data related to credit was collected from local branches of the Zarai Taraqiati Bank Limited (ZTBL). Data about agriculture production and farmers' income was collected from 80 farmers in four Tehsils of District Swat. The findings illustrate that farmers who availed the credit facility had more income as a result of increased production. The study reveals that production of wheat, maize and vegetables increased 190, 210 and 400 kg/ acres respectively after the farmers properly utilised the credit facility. The policy implications of this study are that for enhancing the prosperity of farmers in agricultural countries such as Pakistan, the government needs to invest more in farmers and provide them hassle-free soft credit facilities.

Keywords: *Formal Credit, Agriculture Production, Khyber Pakhtunkhwa, Farmers Income*

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INTRODUCTION

Agriculture sector plays a vital role in the economic growth of any agricultural country. If proper attention is given and appropriate resources are provided, this sector can be instrumental in reducing unemployment, poverty and food scarcity. In Pakistan, about 75 percent people are directly or indirectly engaged with the agriculture sector. Agriculture provides raw material to a number of industrial units and thus it also forms a basis for the industrial development of a country.

The population of Pakistan is increasing rapidly and in future food insecurity can further aggravate the overall situation. Like many other parts of the country, the province of Khyber Pakhtunkhwa is also heavily dependent on agriculture. District Swat, which is the focus of this research, although famous for pristine environment and tourism but has also abundant agricultural land. There are two seasons of crops in Swat namely 'HAR' and 'MANEY'. The major crops of 'HAR' are wheat, mustard, barley and lentil and crops of 'MANEY' are maize, rice and

jute.

STATEMENT OF PROBLEM

There is no doubt that if utilised effectively, credit can play a critical role in the lives of farmers and bring them more prosperity by growing more food. The research problem of this study is to examine the impact of institutional credit on agricultural production in the study area. Farmers having small and medium-sized landholdings across the country including Swat are usually poor and use traditional tools in cultivation. If financial institutions provide credit to them, they will be in a position to purchase latest farm machinery, better seeds and fertilizers and hence per acre yield will increase in the area.

OBJECTIVES OF THE STUDY

The main objectives of this study are to investigate the impacts of availability of credit facility on agricultural outputs as well as on the financial status of farmers. These two objectives are outlined below:

1. To evaluate whether formal credit has positive or negative impact on agricultural production in district Swat
2. To find out the impact of formal credit on the financial position of the respondents in the study areas

LITERATURE REVIEW

Anka (1992) states that agriculture credit improves the income of the farmers and their social identity. Exploring the link between income and production in the Punjab province of Pakistan, Ahmad et al. (2003) show that farmers in Punjab availed credit facility and invested the money on the purchase of good quality seed and fertilizers. As a result, the authors claim that farmers have a better wheat production. Basher et al. (2007) found that agriculture credit granted by United Bank Limited (UBL) in Faisalabad District had a significant influence on the sugarcane production. They also found that commercial banks play a pivotal role in improving standards of living in rural areas by providing credit to farmers. Saboor et al. (2009) examined the impact of micro credit on the income of the respondents in the province of Punjab. They found that average financial positions of those farmers were better who availed credit facility in the study area. A study conducted by Agricultural Development Bank of Pakistan (1996) found that agriculture credit increases agriculture production. The report added that credit was required for obtaining agriculture inputs of good quality. Arif (2001) conducted a study in district Attock to examine the impact of micro-credit on agricultural production. His findings indicate that more than fifty percent farmers were educated and were

having age between 31-50 years. By and large the study states that credit had a significant impact on the production of crops and vegetables. However, Shahnaz and Raza (1995) found that women usually had little access to financial institutions to get credit due to illiteracy, limited mobility and lack of assets for collateral. Consequently, in contrast to men, women are mostly not in a position to avail such facility and invest in their farms to increase their outputs (Shahnaz and Raza, 1995). To sum it up, there is no denying the fact that availability of easy and soft loans can enable farmers to avail such facilities and utilise them.

RESEARCH METHODOLOGY

Here, a brief description of the tools and approaches is given by means of which the sample size was selected and data was collected and analyzed. This section of the paper portrays the mechanics of the research study and includes data collection, sampling design, universe of the study and analytical techniques.

COLLECTION OF DATA

In order to answer the research question and accomplish the research objectives, both primary as well as secondary data was garnered. Secondary data were obtained from ZTBL credit manuals, literature on credit and annual reports. Primary data were collected from selected farmers in the study area through a questionnaire. Questionnaire was made in the light of the objectives and included questions concerning wheat, maize and vegetables production, net income, saving and gross revenue of the respondents before and after availing the credit facility offered by ZTBL.

Sampling Design

Four Tehsils were chosen namely Barikot, Charbagh, Kabal and Khwazakhela for this study. These tehsils were chosen because more borrowers were found there. After the selection of tehsils, a list of ZTBL credit receivers was obtained and then 80 farmers were selected for the primary data compilation through the proportional allocation sampling method.

Universe of the Study

This study was carried out in Swat district. Swat, once a princely state, merged with Pakistan in 1969. District Swat was selected for the study area whereas ZTBL was a key source for the provision of credit to farmers.

Analytical Framework

Both descriptive and inferential statistics were used for analyzing data. Descriptive statistics were used to explain demographic factors and inferential statistics

was used for inferential analysis. To compare savings, income and wheat, maize and vegetables production of respondents before and after the credit, paired t-test was used as follows:

a) Paired t-Test

The Formula for Paired t-statistic is as follows:

$$t = \frac{\bar{d}}{\sqrt{\frac{\sum(d_1 - \bar{d})^2}{n-1}}} / \sqrt{n}$$

Where:

$d_1 = X_A - X_B$ = Difference between the two pairs

$\bar{d} = \sum d_1 / n$ = Mean difference of pairs

$$\sqrt{\frac{\sum(d_1 - \bar{d})^2}{n-1}} = \text{standard deviation}$$

n = Numbers of pairs

HYPOTHESES

The following two hypotheses were formulated to test the assumptions of the study.

Hypothesis 1

H₀: The formal credit does not enhance the production of vegetables, wheat and maize.

H₁: The formal credit does enhance the production of vegetables, wheat and maize.

Hypothesis 2

H₀: The formal credit does not improve the financial position of the beneficiaries.

H₁: The formal credit does improve the financial position of the beneficiaries.

RESULTS AND ANALYSIS

Results and analysis consist of both demographic and inferential data of the farmers. Demographic data comprises age, education, family size and opinion about the credit procedure of the farmers and inferential data consists of change in total cultivated area, change in income of the respondents, and change in crop production. Most of the farmers in the study area were illiterate having ages between 30-40 years. More than 70 percent famers were living in the combined fam-

ily system whereas remaining 30 percent were living in the single family system. Similarly, 72 percent respondents stated that credit process of getting agriculture credit from ZTBL was trouble-free and 28 percent farmers in the study area had negative perceptions about credit procedure. Almost 100 percent beneficiaries agreed that interest rate on agricultural loan were high. Table 1 shows total cultivated area before obtaining loan from the bank was 925 acres whereas after getting loan total cultivated area increased to 1305 with hundred percent positive changes by utilizing the loan appropriately in the study area. The P.Value is less than five percent which is highly significant. Following appropriate utilization of credit, average monthly income increased from 9832 to 12987 with 24 percent changes, from 9731 to 13209 with 27 percent changes, from 8921 to 12091 with 25 percent changes, and from 9251 to 13021 with 29 percent changes in tehsils Barikot, Charbagh, Matta and Khwazakhela respectively. Overall, an increase of 26 percent was reported. The t-statistic is 17.009 with P-Value less than five percent, showing that agriculture loan had a positive influence on the financial position of the respondents as they efficiently utilised the loan. Changes in the production of crops (wheat and maize) are given in Table 3. The production of vegetables and crops improved significantly. The wheat production increased from 810 to 1000 kg/acre with 190 kg/acre positive changes; maize increased from 690 to 900 kg/acre with 210 kg/acre more, and vegetable production increased from 950 to 1350 kg/acre with 400 kg/acre increase. This increase in the production of wheat, maize and vegetable is due to suitable utilization of credit amount by farmers. The t-statistic

Table 1: Change in Cultivated Area

TEHSILS	Cultivated area (Acre)		Change (Acre)	% Change	t-stat	Sig. (2.tailed)
	Before	After				
Matta	220	300	80	21.0	09.001*	0.000*
Charbagh	300	410	110	29.0		
Barikot	250	320	70	18.5		
Kabal	155	275	120	31.5		
TOTAL	925	1305	380	100		

Source: Field Study 2014. * = Significant

Table 2: Average Income Before and After Credit

Tehsils	No. of Resp.		Before Credit (Average monthly income)	After Credit (Average monthly income)	Change (Rs)	%Change	t-stat	Sig. (2-tailed)
	No	%						
Barikot	15	20	9832	12987	3155	24	17.009*	0.000*
Charbagh	18	22	9731	13209	3478	27		
Matta	19	23	8921	12091	3170	25		
Khwarzakhela	28	35	9251	13021	3770	29		
Total Average	80	100	9434	12827	3393	26		

Source: Field Study 2014 * = Significant

Table 3: Production of Crops and Vegetable (kg/ Acre)

Particulars	Before Credit	After Credit	Change Due to Credit	t-stat	Sig. (2-tailed)
Wheat	810	1000	190	16.023*	0.000*
Maize	690	900	210	29.198*	0.000*
Vegetable	950	1350	400	15.531*	0.022*

Source: Field Study 2014. * Significant

values are 16.023 with p.value less than 0.05, 29.198 with p.value less than 0.05, and 15.531 with p.value less than 0.05 for wheat, maize and vegetable respectively.

CONCLUSIONS AND POLICY IMPLICATIONS

The study concludes that various credit schemes of ZTBL played a significant role both in the agricultural production and enhancement of income of the farmers in the study area. Agriculture credit brought positive changes in the production of crops and vegetables and hence, improved the financial standing of farmers. Due to proper utilization of credit, average monthly income of all farmers who had availed the facility increased considerably from previous levels. The policy relevance and significance of this research is that the government and more specifically the Ministry of Agriculture and all other relevant departments need to find ways to initiate more such loan programs for farmers. If farmers have access to soft loans, they can avail the opportunity and utilise the money to have more and better crops. When they have money, farmers will feel confident to buy high quality seed, pesticides, fertilizers and other farm-related machinery to increase their harvests. In view of all this, it is high time for the concerned government quarters to realize the problems faced by farming community not only in KP but across Pakistan and take solid policy initiatives so that farmers play a more active role in the prosperity and development of the country by growing more crops, vegetables and fruits. Also, if Pakistan becomes self-sufficient in certain agricultural products, the country can earn more by exporting the surplus commodities to a number of countries thus leading to overall economic prosperity of the country.

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Credit Risk Affects Shareholder's Wealth in Banking Sector of Pakistan, Does It Matter?

Abdul Wahid¹, Kamran Azam², Gulfam Khan³, Nadeem Talib⁴

ABSTRACT

Current study intended to examine the effect of credit risk on shareholder's wealth in banking sectors of Pakistan. Structural Equation Modeling (SEM) technique was used to analyze the proposed model. Scheduled banks of State Bank of Pakistan (SBP) were taken as statistical frame. The results indicate that overall credit risk significantly and negatively effect the shareholders wealth; similarly indicator of credit risk like ratio non-performing loan to gross advance and provision about non-performing loan to non-performing loans influence the earning per share and Return on equity in significant manner. The non-performing loans has come up as the major indicator of credit risk as consequence of the finding of the study, whereas earning per share, return on equity and return on revenue are some other effective indicators of the wealth of shareholders.

Key words: *Credit Risk, Shareholder's wealth, Corporate Governance, Stakeholder's theory, Structural Equation Modeling (SEM)*

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INTRODUCTION

Banks play vital role for the development of the economy of a country. A banking sector works as a life-blood of modern trade and commerce for providing a major source of finance for the development of economy. The relationship between banks and economic growth is long run. According to Musina(2014) "Banks support the economic growth through increasing the level of investment". Therefore, for all reasons the Efficiency of the banking sector is an indicator of financial stability and development of the country. As a matter of facts, the banks provide loan to public for productive purpose, which leads to boost the performance of financial growth and sustainability of the economy.

Credit activity of banks is an important way by which the investor can increase the functions of their business and also can dig out from crisis. On other hand

granting credit is the major source of revenue generating activity of the banks but this activity leads to create a high risk for both lender and borrower (Kargi, 2011). When the borrower is unable to fulfill its commitment, credit risk arises. According to State Bank of Pakistan (SBP) prudential regulation for corporate sector, "when over dues exceeds by (90) ninety days, it is called Non-Performing Loan (NPLs)". The credit risk is one of the major risks which causes the distortion of banks profitability and is a serious threat for banks survival. Drehman et.al, (2008) studied that rising NPLs in credit portfolio of any bank become a hurdle in the way of achieving the goals of banks, it is important for banking sector to have effective credit risk management. Credit risk management is a very important technique to measure and improve the profitability of banks in long-term. Banking sector is suffering a huge chunk of non-performing loan, Due to this profitability and survivals of banks are at risk. There was a very high challenging situation for Banks to control the level of non-performing loans and significant increased in credit risk during the financial crisis in Thailand, Indonesia, Japan and Mexico. Due to these financial and economic crises, many banks were closed down in Indonesia and Thailand (Ahmad & Arif, 2007).

Petri (2012) described two theories of the corporate governance. The first theory is named as in the words like "Adam Smith's notion of the invisible hand" which is useful measurement in US and UK and this theory focuses on only the wealth maximization of the shareholder. The second theorem is "Arrow-Debreu model & the fundamental theorems of economics" which is applied in countries such as Japan, Germany and France and this focuses on the interests of other stakeholders, like employees and customers as well as shareholders (Petri, 2012). Igonina (2014) defined that Shareholders (investor and capital providers) invest their money in return for a gaining of profits. Their profit is associated with the return on the assets (proper utilization of resources of a company), and then it can be assured firm's overall financial performance (Varotto, 2011). As a consequence, the firm's wealth (in other words wealth of shareholders) must be enhanced and accelerated with reasonable percentage before it can be dispersed to the different stakeholder of the company.

A few empirical researches about the credit risk, bank efficiency, credit risk portfolio and the banks performance were conducted by (Anthony, 1998, Ahmed, Al-Tamimi & Al-Mazrooei, 2007, Brown bridge, 1998, Bobakovia, 2003, Schumacher, 2002 & Samuel, Julius, Samuel, 2012 & Takeda & Shawn, 1998). There were some other studies about the credit risk management, its relation with banks profitability and tactics about effective credit risk mitigation, such studies includes (Ahmad & Arif, 2007; Epure & Lafuente, 2012; Giesecke, 2004; Kithinji, 2010 and Musina, 2014). As a result, the issue of credit risk and Shareholders wealth of bank has remained controversial and open to be further investigated. Current study focal point is to examine the impact of credit risk and Shareholders wealth

in Pakistan.

LITERATURE REVIEW

In present economic conditions, all banks are facing numerous risks such as liquidity risk, foreign exchange risk, market risk and interest rate risk etc, the risk which may generate some resources of threat for a bank's survival and success is credit risk (Al-Tamimi and Al-Mazrooei, 2007). Credit risk is potential risk to the performance of the banks form creditor's failure to meet the obligation or perform as agreed. It occurs mostly when bank lending funds are extended or otherwise exposed through definite or implied contractual agreements, whether reflect on or off the balance sheet (Hanke, 2003). Papanagiotou and Schumacher (2002) argued that credit value of portfolio of a bank is the most important and potential risk factor.

Kithinji (2010) studied the importance of credit risk management on the profitability of banks in Kenya. Data about credit ratio of non-performing loans and total profit of the commercial banks were collected for ten years. The finding of the study argued that large amount of profit of the commercial banks is not affected by the amount of credit and Non-performing loans. The high credit risk and capitalization lead to banks lower profitability where the performance of banks is measured by the return on assets and return on equity of banks. Credit risk management has significant effect on the effectiveness of the banks (Musina, 2014)). Fofack (2005) argued that non-performing loans and performance of banks has negative weak co-relation where as provision and loan losses is negatively correlated with the profitability of banks, but loans and advances have significant impact on the profit of banks. Akmal et al (2006) discuss that relationship between banks performance and non-performing loans is negative that is, if the ratio of non-performing loan increase the performance of the banks obviously decreases.

Ahmad and Arif (2007) studied the main factor of credit risk of commercial banks and compare it among developed banking system and emerging banking system of the Pakistan. The author found that it is important for the regulation of banking systems that offer multiple products and services, and management quality is critical in case of bank loans, which dominated in the emerging economies. Provision for loan losses has come up as main indicator of credit risk management which affects the performance of the banks. The study concluded that credit risk is higher in developed economy as compare to emerging economy. Epure and Lafuente (2012) explored the key determinants of credit risk of the financial institutions by comparing two economies banking system i.e. developing and under developing economies banking system. Study emphasized that vigorous regulations and appropriate techniques of risk management (Georges, 2004)

are very important for financial institutions which are offering multi-products in these economies. Provisions for the bad debts and loan losses are also factors which cause the credit risks for the banks. The study also explored that the ratio of non-performing loans in emerging economies is higher than the developing economies. Felix and Claudine (2008) discovered the relationship between the non-performing loans and performance of the banks. The findings of the study are the return on assets and return on equity both used for the measuring of the performance of the banks were inversely associated with the ratio of non-performing loan to the total loans of financial institutions which cause the decline in the profitability of banks.

Epure and Lafuente (2012) studied the performance of banks influenced through credit risk for the period of 1998 to 2007 on banking industry. The results showed that credit risk has negatively affected the efficiency and return on assets of the banks. It means increase in non-performing loans/credit risk will reduce the profitability of banks. Al-Khoury (2011) explored the impact of different banks specific risks on the performance of banking sector in Gulf Cooperation Council. In this study, 43 commercial banks were used as a sample over the period of 1998 to 2008

Igonina (2014) defined that Shareholders (investor and capital providers) invest their money in return for a gaining of profits. Their profit is associated with the return on the assets (proper utilization of resources of a company), and then it can be assured firm's overall financial performance (Varotto, 2011). As a consequence, the firm's wealth (in other words wealth of shareholders) must be enhanced and accelerated with reasonable percentage before it can be dispersed to the different stakeholder of the company. In the prior studies ROE (Return on equity and ROA (return on assets) ratios has been discussed extensively as an important indicator for the measurement of the profitability of the banks. Chen and Pan(2008) pointed out that the effectiveness of banks can be calculated by using of ROA which show to what extent banks utilize their assets to generate future profits. In accordance with the study Sayilgan and Yildirim(2007), "ROE (Return on equity and ROA (return on assets)" ratios are frequently used in a high esteem as the indicator of credit analysis in banks, profitability is related with the results of management performance like ROE (Return on equity and ROA (return on assets) ratios is the most frequently used ratio.

Sarker (1999) argued that ratio of non-performing loans are not high and controllable in Islamic banking system all over the world. Khan and Ahmed (2001) explored those bankers of inspection that there is lack of understanding of risks occupied in Islamic banking. Psillaki (2010) found that large amount of profit of the commercial banks is not affected by the amount of credit and Non-perform-

ing loans. The high credit risk and capitalization lead to banks lower profitability where the performance of banks is measured by the return on assets and return on equity of banks. In other words, the presence of credit risk allows banks to charge extremely high interest rate which invariably lead to their high profitability. Bank of Ghana report (2004) on cost of banking makes it obvious that, banks in Ghana still enjoyed higher profitability ratio in spite of the higher rate of non-per-

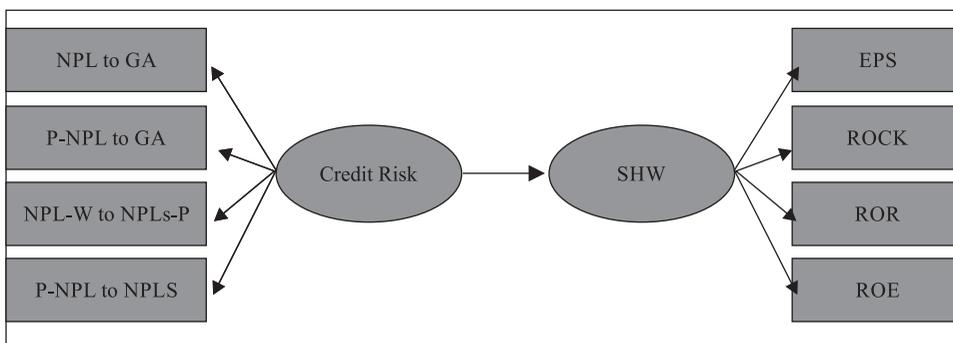


Figure 1: Theoretical Framework

forming loans (NPLs) as a result of higher interest rates or lending rates charged.

Description of the Proposed Model

There are two variable in model, one is independent variable credit risk and second is dependent variable shareholders wealth.

Detail of Latent Variables and their measures with Formulas

a) Credit Risk

The credit risk is unobserved variable which is measured through the main four ratios. These ratios and their formulas are given below.

1. "Ratio of NPLs to GA" = "Non-Performing Loans / Gross Advances*100".

The ratio between the NPL to GA shows the severity of Non-Performing Loans in gross advances of the banks. It shows the quality of loan portfolio of a bank and how much amount of banks assets is at risky situation. It indicates the performance of the management regarding loan portfolio and take care of the shareholders wealth.

2. "P-NPLs to GA Ratio=Provision against Non-Performing Loans / Gross Advances*100".

It reflects the quality of advances of banks. It also shows that how much degree of risk is involved in gross advances which is lend to the customer. The provision shows that chances of Non-performing loan in gross advances.

3. “NPLs write-off to NPLs Provision Ratio = NPLs write-off / NPLs Provision *100”.

It reflects how much amount of expenses against provision is converted into actual loss. It is the more important ratio about the risk because it indicates the actual loss to the banks which ultimately influence the shareholders wealth.

4. “NPLs Provision to NPLs Ratio = NPLs Provision / NPLs *100”.

It indicates that how much amount against the NPLs is proposed to reserve and how much amount is actually occurred. It also indicates the management decision making quality against NPLs.

b) Shareholder’s Wealth

The shareholders Wealth is measured through EPS (Earning per Share), ROE (Return on equity), ROR (Return on Revenue) and ROCE (Return on Capital Employed).

1. “Return on Equity = N.I / Total Equity *100”

The ratio of return on equity shows that how much amount is earned by the investors on its investment. It indicates the return of the investors. Total Shareholders’ Equity = Share Capital + Reserves + Un-appropriated Profit and NI= Net Income after tax.

2. “Earnings per Share = Net Income / Total number of ordinary share outstanding”

EPS is the ratio between net profits after tax to number of shares outstanding. It indicates how much amount is earned by shareholders on his one share. The investor always focuses on EPS because it indicates the actual earning of the investors.

3. “Return on Capital Employed = Net income after tax / Capital employed”

ROCE is a ratio shows the efficiency and profitability of a company’s capital investment. Capital employed is measured though total assets minus current liability of the banks.

4. “Return on Revenue = Net income / Revenue *100”

It shows that how much amount of revenue is earned by banks and how much amount is available for its investors. It actually indicates the efficiency of management regarding expenses. It also indicates that how much amount is available for

investors.

METHODOLOGY

Stratified sampling technique was used for sample selection. The sample of study was comprised of 14 banks. This includes 4 banks (26.67%) from public sector, 5 banks (33.34 %) from Islamic banking sector and 5 banks (33.34 %) from Private sector which is shown in Table 1. The Structural Equation Modeling

Table-1: Sample of the Study

Public Sector Banks	Private Sector Banks	Islamic Banks
First Women Bank Limited	Allied Bank Limited	Albaraka Bank (Pakistan) Limited
National Bank of Pakistan	Askari Bank Limited	Bank Islami Pakistan Limited
The Bank of Khyber	Habib Bank Limited	Burj Bank Limited
The Bank of Punjab	Muslim Commercial Bank Limited	Dubai Islamic Bank Limited(Pakistan)
	United Bank Limited	Meezan Bank Limited

(SEM) was used for the data analysis. Data was collected from State Bank of Paki-

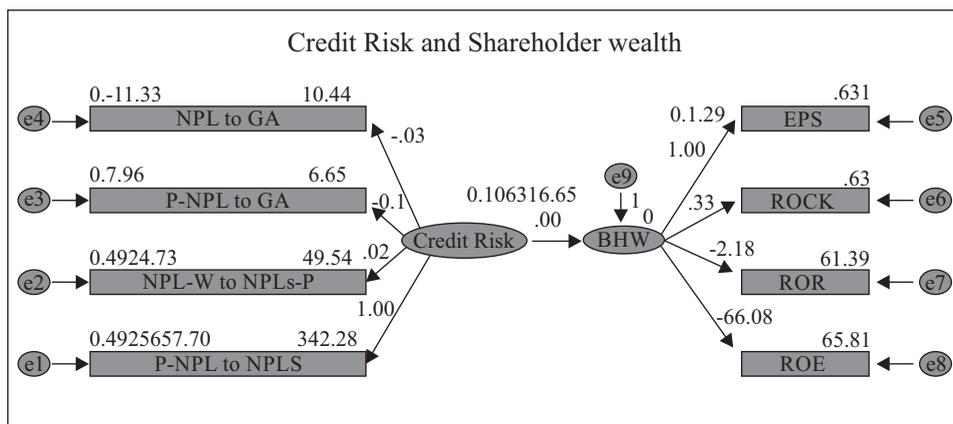


Figure 2: Structural Equation Modeling

stan (SBP) financial sector analysis reports for 5 years from (2008-2012).

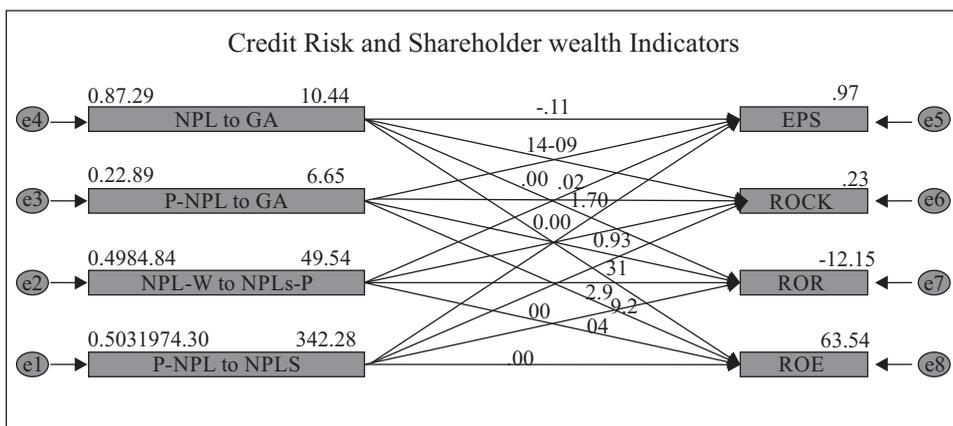


Figure 3: Structural Equation Modeling on the basis of observed variable

- a) **Research Model (Credit Risk and Shareholders Wealth)**
- b) **Research Model (Credit Risk and Shareholders Wealth Indicators)**

RESULTS AND FINDINGS OF THE STUDY

Table2: Summary of Variables Regression Weights

Indexes	Standard Value	Observed	Recommended By
x2/df	≤3.00	1.67	Wheaton et al. (1997) and Carmines and McIver(1981)
GFI	≥0.90	0.92	Joreskog and Sorbom(1984)
A GFI	≥0.80	0.87	Joreskog and Sorbom(1984)
NFI	≥0.90	0.95	Bentler& Bonett(1980) and Bollen (1989b)
CFI	≥0.90	0.9	Bentler (1990)
RM SEA	≤0.080	0.056	Browne and Cudeck(1993)

GFI =Goodness-of-fit index; AGFI =Adjusted goodness-of- fit index;
 NFI= Normal fit Index; CFI= Comparative fit Index;
 RMSEA=Root Mean Square Error of Approximation

a) Model Fitness

Table 3: Summary of Variables Regression Weights

Observed		Unobserved	Estimate	S.E	C.R	P
Shareholders Wealth	<---	Credit Risk	-0.424	0.001	1.23	0.22
NPL/GA	<---	Credit Risk	0.145	0.019	1016	***
PNPL/GA	< ---	Credit Risk	0.11	0.03	0.796	0.43
NPLW/NPLP	<---	Credit Risk	-0.808	0.009	-1.316	0.19
NPLP/NPLR	< ---	Credit Risk	-1.063	0.024	-1.291	0.2
EPS	< ---	Shareholders Wealth	0.72	0.04	-3.326	***
ROE	< ---	Shareholders Wealth	1.083	0.059	5.575	***
ROR	< ---	Shareholders Wealth	-0.364	19.87	-3.326	***
ROCE	< ---	Shareholders Wealth	-0.184	1.29	-1.689	0.09

Six indexes (GFI, AGFI, NFI, CFI and RMSEA) were considered to check the fitness of the model. Fitness of these model indexes, on the basis of the structural model analysis, is summarized in Table 2.

b) Model Findings

The regression weight of the variable in Table 3 shows that the credit risk impact on wealth of the shareholders by 0.424 but this influence is not significant. In credit risk all the indicators like Provisions against Non-performing loans to gross advances, Non-performing loans-Write-off to Non-performing loans- Provision and Non-performing loans Provision to Non-performing loans Ratio by the contribution value 0.11, -0.808 and -1.063 is insignificant except the contribution of NPLs to GA by the value 0.145 is significant. This result shows that only ratio of

Table 4: Summary of Variables Regression weights about Direct Ratios to Indicators

DVs		IVS	Estimate	S.E	C.R	P
EPS	<---	NPLs TO GA	-0.109	0.02	-5.349	***
ROE	<---	NPLs TO GA	-0.028	0	-6.654	***
ROR	<---	NPLs TO GA	1.7	2087	0.592	0.6
ROCE	<---	NPLs TO GA	0.309	0.19	1.653	0.1
EPS	<---	Provisions against NPLs to GA	0.143	0.04	3057	***
ROE	<---	Provisions against NPLs to GA	0.02	0.01	2.4	0
ROR	<---	Provisions against NPLs to GA	6.929	5061	1.236	0.2
ROCE	<---	Provisions against NPLs to GA	-0.92	0.37	-2.525	0
EPS	<---	NPLs-Write-off to NPLs to GA	-0.004	0	-1.327	0.2
ROE	<---	NPLs -Write-off to NPLs to GA	-0.001	0	-1.168	0.2
ROR	<---	NPLs -Write-off to NPLs to GA	0.294	0.38	0.775	0.4
ROCE	<---	NPLs -Write-off to NPLs to GA	0.009	0.03	0.364	0.7
EPS	<---	NPLs Provision to NPLs Ratio	0	0	1.268	0.2
ROE	<---	NPLs Provision to NPLs Ratio	0	0	0.019	1
ROR	<---	NPLs Provision to NPLs Ratio	-0.001	0.01	-0.12	0.9
ROCE	<---	NPLs Provision to NPLs Ratio	-0.001	0	1.145	0.3

NPLs to GA is the best indicator of the credit risk in the Pakistan. Similarly result about Earning per share, Return on equity and Return on revenue by value of 0.04, 0.059 and 19.869 respectively are significant contributors / indicators of the shareholders wealth, on other hand only weight of Return on capital employed shows that it is not the significant contributor/ indicator of wealth maximization.

The result of the table 4 shows that NPLs to GA only influences negatively to the EPS and ROE by regression weight value -0.109 and -0.028 at significant level and provisions against NPLs to GA also influence negatively to EPS by the value of 0.143 at significant level. Remaining all the indicators of the credit risk like Provisions against NPLs to GA, NPLs-Write-off to NPLs- Provision and NPLs Provision to NPLs Ratio don't influence the all indicators of the shareholders wealth like ROE, ROR and except the EPS. The findings of the study show that there is a negative correlation between the credit risk and shareholders wealth of the banks of Pakistan. Similarly the influence of the credit risk on the shareholders wealth is negative but this influence is not significant. It shows that significant correlation between credit risk and influence on shareholders wealth of investors is negative but not significant. It might be due to short period of time or severe policy of the state bank of Pakistan. It is concluded that only ratio of Non-performing loan to Gross advance is the best indicator of the credit risk and earning per share, Return on equity and return on revenue are the significant indicators of the shareholders wealth maximization. The result about influence of overall credit risk on shareholders wealth is insignificant but the indicator of credit risk like ratio of NPLs to GA influence on EPS and ROE is significant.

DISCUSSION

Our result shows that overall credit risk impact on the shareholder's wealth which is insignificant whereas the ratio of non-performing loans to gross advances is significant. It reflects that amount of non-performing loans in Pakistani banking sector is high. It is further confirmed by some of the previous studies (Adebisi & Oyedijo, 2012, Ahmad & Arif, 2007 & Al-Khoury, 2011). The reason behind is that Pakistani economy is suffering a lot of problems like depression in economic activities, lack of opportunities in business (Beresford-Smith & Thompson, 2007) and energy crisis. Most of business sectors are backbone of the economy and are suffering the energy problems. Due to lack of opportunities and depression in economy, the borrowers of the banks specially manufacturing industries are not be able to fulfill their commitments with banks (Varotto, 2011). In this scenario amount of non-performing loans are high in Pakistani banks. On the other hand the wealth of shareholders indicators are sound. Logic behind such a type of result is that due to depression in economy the mark up or interest of banking sectors is high due to credit risk and country risk (Beresford-Smith & Thompson, 2007). In consequences of high mark up due to risk, revenues of the banks are high which shows the best direction and indicator toward the protection of shareholders wealth. It shows that banking sector in Pakistan is working in right way and management of the banking sectors is responsible for the shareholders wealth in the banks. The governance policies of banking sectors are supportive to

shareholders as well as the other stakeholders according to Arrow-Debreu model & the fundamental theorems of economics.

CONCLUSION & RECOMMENDATIONS

We examined this study to investigate whether credit risk effect the shareholders wealth in Pakistan? Sample size of the study covers fourteen different banks. The result of the study (Adebisi and Oyedijo, 2012) is significant in term of finding regarding Non-performing loans to shareholder's wealth. The present study also finds that non-performing loans significantly effects shareholder's wealth of banks operating in Pakistan. These finding are consistence with earlier studies. We can infer from the results that banking sector in Pakistan is working in a right way and management of the banking sectors is responsible for the shareholders wealth in the banks. The governance policies of banking sectors are supportive to shareholders as well as the other stakeholders according to Arrow-Debreu model and the fundamental theorems of economics. It is emphasized that Pakistani banks need to curtain non-performing loans by using right techniques for the evaluation of the borrowers. Further it is ensured that credit risk is minimized which ultimately increase the profitability and wealth of the shareholders. The limitation of the study is to use only 14 banks in Pakistan and the large sample may affect the results. Therefore, it is suggested that future research may consider large sample of bank to inquire that credit risk affect wealth of the shareholders or not.

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3

Antecedents of Attitude Towards Viral Marketing and its Mediating Role in Creating Brand Awareness

Raja Muhammad Akhizer¹, Wisal Ahmad², Farzand Ali Jan³

ABSTRACT

Technology has opened new ways for marketers in order to promote and advertise their products. Viral Marketing has emerged as a new strategic tool for product promotion globally. This study aimed to examine the antecedents affecting consumers' attitude toward Viral Marketing in Pakistan and its mediating influence on consumers' awareness of the brand promoted in viral messages. Data was collected from 205 customers mainly in Islamabad and Rawalpindi. The results found a positive direct relationship between independent variables including informativeness, entertainment, incentives, trust and message source credibility with the dependent variable of brand awareness. Respondents' attitude toward Viral Marketing was found to have significant influence on the relationship between antecedents of Viral Marketing and brand awareness. Implications for managers have been suggested in the light of the study findings, suggesting the adoption of this model to lead to a positive consumer's attitude towards viral marketing and greater awareness of the brands being promoted through viral messages.

Keywords: *Viral Marketing, Viral Messages, Brand Attitude, Brand Awareness*

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INTRODUCTION

The adoption of modern day technologies such as internet and mobile phone is growing exponentially. These changing technologies and innovations have provided companies with new means of advertisements that directly convey their message to end consumers of the products and services (Ravi & Kotler, 1999). Conventional ways of communication are now getting fade and more emphasis is on the new way of communication. Internet and mobile messaging are amongst the newly adopted ways to attract customers (Asle & Ghinea, 2010). With boom in technology and other means, the online consumption has increased and so as the marketer's need to move away from conventional ways of communication to new marketing communication techniques has also increased (Glen, 2008). For this purpose, most of the businesses have turned towards a new marketing tech-

nique which is known as viral marketing that create brand awareness among large population in a quite lesser time and it also uses consumers to encourage product preferences to others as well (David Meerman 2007). Viral marketing is one of the new marketing strategies that most companies are adopting to send their message to final consumers (David & Bridgewater, 2002).

Wilson (2000) defines Viral Marketing as a marketing tactic that encourage individuals to pass a marketing message to other individuals on internet and mobile. Viral Marketing is a new philosophy and much people are not aware of it, that's why its dimensions have yet be fully identified (Danilo & Fill, 2008). Through viral marketing, message is delivered to the right person at right time just to motivate them to forward that message, but for that, the message should be interesting, persuasive and such that would capture the attention of the reader and would motivate him/her to spread it (Petya & Bolls, 2011). Previous studies on viral marketing have addressed the antecedents of viral marketing and consumers' attitude towards viral marketing (Irshad & Sohail, 2012; Faraz & Hosseini, 2011). These studies, though much informative have however addressed the antecedents in a narrow scope leaving some important antecedents such as incentives for users, trust and privacy issues. Further, these factors have been found to have significant effect on consumers' brand awareness; however, previous studies did not move beyond its effects on attitude towards viral marketing. This study extends previous work on viral marketing by looking into the effects of a broad group of antecedents of viral marketing on attitude of the existing users as well as its mediating role on consumers' brand awareness through positive word of mouth who are not engaged in viral marketing.

RESEARCH OBJECTIVES

1. To check the effects of each antecedent on brand awareness of consumers.
2. To check the mediation effect of attitude toward viral marketing on the antecedents of viral marketing and brand awareness relationship.

SIGNIFICANCE OF THE STUDY

Viral marketing is quite a new marketing tactic and marketers or marketing agencies are not yet completely aware of the process and effects of viral marketing. Hence, very limited research has been done on viral marketing so far (Borade, 2013). Although business professionals use the process of viral marketing,, but they are unaware of its real life consequences for the business (Borade, 2013). Specifically, the antecedents of viral marketing have not been fully identified, and the attitude and behavior of people toward it is yet to be investigated. Hence, this study will dig into the various antecedents of viral marketing as well as investigate

the effects of these antecedents on customer's attitude toward the viral marketing.

LITERATURE REVIEW

a) Viral Marketing

According to Bampo et al., (2008) stated that Viral Marketing is a strategy which encourages individuals to pass the marketing message to other person. Due to the technological changes and new marketing trends, almost all brands use VM as a promotional tool (Petya & Boll, 2011). Moreover, due to high speed of messages transmission and behavioral responses, its advantages are much greater than conservative media (Woerndl et al., 2008). It is a kind of low cost mode of promotions as it reaches to everyone just by a single push, and the trustworthiness also increases when it reach to people from their social class (Xavier, 2009). However, despite its substantial superior features, the concept of viral marketing is yet an untapped concept and the exploration of its consequences for business is yet to be seen (Romero, José & Sánchez, 2013). The coming section give a look at the antecedents of the viral marketing and discusses how these antecedents affect the effectiveness of viral marketing and brand awareness among consumers.

b) Informativeness of the Viral Message

Providing information regarding a new product is essential dimension of effective advertisement (Faraz & Hosseini, 2011). The Information provided helps consumers in making a purchase decision (Tsang, Melody, Shu-Chun Ho & Liang, 2004). Information not only educate the people about the product but also shows how the product is better and unique than that of the rival one's, and even it also shows how to and where the product should be used. In fact information provides detailed knowledge regarding the product or service (Faraz & Hosseini, 2011). According to Vatanparast, Ramin and Asil (2007), there is a direct and significant relationship between brand related information and brand awareness. Information can work as a valuable incentive for consumers as they are much interested in knowing and receiving the correct and right information (Haghirian, Parissa, Madlberger & Tanuskova, 2005). Blanco, Carlos Flavián, Miguel Guinalú Blasco, & Isabel (2010) state that uninterested information and boring message can damage the brand image in customer's mind as well as the chances of its ignorance by its receivers is high. Sending message through internet and mobile SMS is the basic characteristic of viral marketing, hence such message helps in developing positive attitude if they are the desired one and liked by its recipient (Reyck, Bert de, & Degraeve, 2003). Kelly, Louise, Gayle Kerr, & Judy Drennan, 2010 stated that one of the reasons that online advertisement is ignored by customers is the delivery of uninterested and boring information. Thus, keeping the above dis-

discussion in view, it can be implied that the quality of information is an important dimension in developing customer's attitude towards viral marketing and brand awareness. Hence, this study developed the following hypothesis:

H1: Viral Message informativeness has a significant positive impact on brand awareness.

H2: Attitude towards viral marketing mediates the relationship between the Informativeness and brand awareness.

c) Message Entertainment

Uninterested and boring information can spoil the brand image in customer's mind (Blanco et al. 2010) and hence entertainment is considered an important element of advertising. Thus, advertising gurus always suggest that advertising message should contain some entrainment to attract the attention of customers. Previous marketing researchers have continuously shown the effect of entertainment in advertising on advertising effectiveness including capturing viewer's attention, improving attitude toward the brand and directly influencing the sales (Armstrong, 2010). In order to capture the attention of customers, the message content of the viral message should be such that would immediately capture receivers' attention and provide the precise message (Armstrong, 2010). Entertainment should be linked in the message so that customers may not only get the information, but they also like and share it with others resulting in spreading of the message (Reinartz, Werner, & Saffert, 2013). Entertainment services increase the loyalty of the customers which in turn enhances the customer buying attitude (Faraz & Hosseini, 2011). Considering the above discussion, it can be said that being an important factor in other marketing campaigns, entertainment is also an important antecedent of viral marketing that helps in developing customer's attitude toward viral marketing and brand awareness.

H3: Entertainment has a positive significant impact on brand awareness

H4: Attitude towards viral marketing mediates the relationship between the entertainment and brand awareness.

d) Message Source Credibility

Literature on advertising effectiveness evidences that the reliability and credibility of the advertisement depends on two main factors, the company's credibility and the sender of the message (Kelly et al., 2010). Viewers normally ignore the ads they receive on social sites because of less credibility and hesitation of the source of information (Kelly et al., 2010). Receiving of message from peer groups or social class enhances the credibility and reliability of the message (Palka et al., 2009). If the source of the message is credible in the eyes of customers, more positive response would elicit toward the SMS advertisements (Vatanparast et al.,

2007). Hence, it can be implied that the greater is the credibility of the message source, the greater will be the value of viral message and eventually its impact on the message recipient (Haghirian et al., 2005). Thus, it can be stated that the credibility of message source is an important antecedent of viral marketing and is key toward brand awareness.

H5: Message source credibility has a positive significant impact on brand awareness

H6: Attitude towards viral marketing mediates the relationship between the source credibility and brand awareness.

e) Message Incentiveness

People always look forward for some kind of financial benefits from direct marketing promotions (Drossos et al., 2007). Drossos et al.s (2007) further found in their study that incentives and financial benefits provoke customers to accept the mobile promotions. In the same way, providing discounts and incentives in designing mobile campaigns is one of the effective ways to motivate customer attitude towards purchasing the product, and in same way helps the marketer to get the required information of the customers (Vatanparast, Ramin, & Butt, 2010). The findings of the research conducted in Irish market (KPMG report 2012) show that almost 57 percent of the respondents agreed that incentives and retail discounts positively affect their acceptance of such advertising means. Researchers have mixed views about the effects of consumer's incentives, however, the greater indications of its positive effects somehow supports the notion that incentives offered in a viral message may be considered an important antecedent that would have positive effects on consumer's attitude toward viral marketing and their brand awareness.

H7: Incentive has a positive significant impact on brand awareness.

H8: Attitude towards viral marketing mediates the relationship between the Incentive and brand awareness

f) Trust on Viral Message

The concept of trust can be categorized and analyzed at various levels of social interaction between the customers and company, interpersonal relationships, intergroup, and inter-organizational factors. Studies conducted during the last several years particularly in organizational theory and marketing suggest that consumers' trust toward brand message needs to be worked upon as it helps in obtaining consumers' attention and building and sustaining their loyalty toward the brand (Garbarino, Ellen & Johnson, 1999). Hence, it can be proposed that trust of consumers toward the viral marketing message will have significant positive effect on the effectiveness of viral message and consumers brand awareness.

H9: Trust and privacy has a positive significant impact on brand awareness.

H10: Attitude towards viral marketing mediates the relationship between the trust and brand awareness

g) Brand Awareness

The capacity of consumers to recognize and remember certain brand is known as brand awareness (Aaker, 1996). Aaker (1996) stated that brand awareness is the process starting from introduction of brand to consumers putting of the brand in their higher rank. According to marketing researchers, higher level of brand awareness can influence the purchase decision of the consumers (Clark et al., 2009). Researchers on marketing communication have the same say and findings that advertising and promotion messages have greater impact on consumers' brand awareness (Grewal et al., 1998). On the other hand, marketing researchers have found a significant effect of viral marketing on consumer brand awareness. De Valck, Gerrit, Van Bruggen and Berend (2009) state that word of mouth in community forums where participants exchange information affect the consumer's selection of advertisement and hence increases consumers brand awareness. As the utmost objective of a business is to increase its sale, it is important for a business to attract new customers to their products and motivate them to keep repeat purchasing of it. For this purpose brand awareness is very important. Thus, considering the above discussion, it is proposed that brand awareness has a significant relationship with the antecedents of viral marketing.

THEORATICAL FRAMEWORK

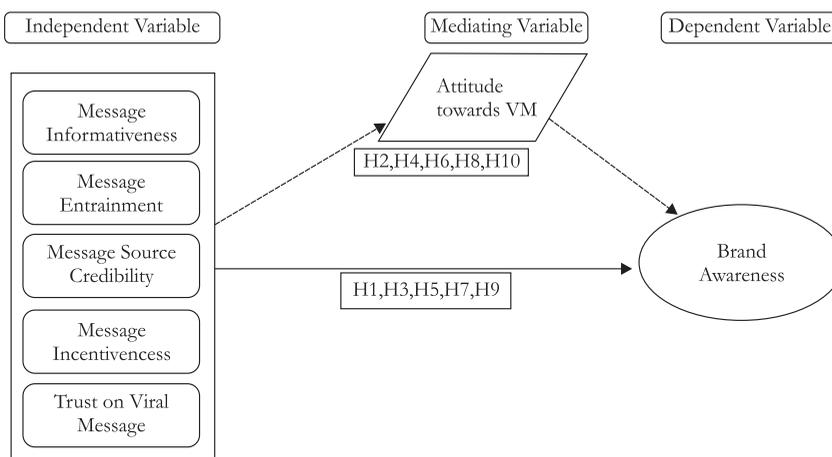


Figure 1: Antecedent of Viral Marketing and Brand Awareness: Mediation Effects of Attitude Towards Viral Marketing

RESEARCH DESIGN

The research approach of the study was mainly adopted in light of objectives of the study (Baker et al., 2007). Hence by looking into the specific objectives stating the relationship of antecedents of viral marketing with the effectiveness of viral marketing and brand awareness, this study adopted quantitative approach. The population of the study was all customers who receive advertising messages of different brands through mobile phone and social media. Because of the tight time frame (four months) of the study, the technique used for selection of the sample was convenient non-probability sampling. Respondents were selected on the basis of proximity as well as the targeted audience willingness to participate in research (Davis, 2000). Majority of the respondents were males were male 58% compared to 41% females. The data was collected regarding attitudes towards viral marketing via mobile SMS or social media users in twin cities (Rawalpindi & Islamabad) of Pakistan through five-point Likert scale where “1” represented strongly disagree and “5” as strongly agree. Approximately 230 questioners were distributed among individuals in hard form of which 205 were successfully returned. The items of informativeness, Trust, source credibility and Attitude towards viral marketing were adapted from the studies of Zernigah et al., (2012), items of entertainment and Incentives were adapted from the study of Baron and Kenny (1986) and items of Brand Awareness was adapted from the study of (Aaker, 1996).

For reliability of instrument, the Cronbach's alpha test was used to check the inter-item consistency. The face validity of the questionnaire was checked by three academic professionals and three practical professionals whereas reliability coefficients were also calculated using Cronbach alpha and all the constructs of the study were much above the standard threshold level. The brand awareness had 0.90 reliability coefficient followed by message informativeness having value of 0.86. Values of all other variables were also much higher than 0.6 suggesting that the measuring instrument is a reliable instrument. The hypotheses of the study were tested using regression equation particularly using the Baron and Kenny approach of mediation.

RESULTS

For the verification of the study hypotheses, regression analysis was performed with all dependent variables relating first with brand awareness and then with attitude toward viral marketing. Following the Baron and Kenny (1986) approach, Regression analysis was performed in four steps with dependent variables and mediating variable. In first step, the independent variables (IVs) were related to the dependent variable, brand awareness, in second step, the independent variables were related to dependent variable, attitude toward viral marketing, in the 3rd

step, moderating variable was regressed with dependent variable, brand awareness, and in fourth step, the relationship was checked among all the independent variables, that is, antecedents of viral marketing, Dependent variable, that is, brand awareness and with mediating variable naming attitude toward viral marketing. Detail of the analysis is shown in Table 1 given below.

Table-1 Antecedent of Viral Marketing and Brand Awareness: Mediation Effects of Attitude towards Viral Marketing

Regression Analysis and Mediation							
Steps	IV	DV	R2	F	B	T	Sig
1st	Info	BA	.854	240.25	.268	7.482	.001
	Ent				.225	5.303	.001
	SC				.215	4.855	.001
	Incentives				.227	5.713	.001
	Trust				.261	8.777	.001
2nd	Info	Attitude toward VM	.292	17.86	.060	.758	.450
	Ent				.169	1.809	.072
	SC				.178	1.828	.069
	Incentives				.152	1.729	.085
	Trust				.143	2.187	.030
3rd	ATVM	BA	.448	166.40	.671	12.90	.000
4th	Info	BA	.892	282.422	.254	8.234	.000
	Ent				.186	5.044	.000
	SC				.173	4.515	.000
	Incentives				.192	5.568	.000
	Trust				.228	8.793	.000
	ATVM				.233	8.424	.000

Info: Informativeness;

Ent: Message Entertainment;

SC: Source Credibility;

VM: Virtual Marketing;

BA: Brand Attitude;

AT: Attitude Towards Virtual Marketing

Hypotheses H1, H3, H5, H7 and H9 were related with direct relationship between the study variables. The first hypothesis stated the direct relationship between viral message informativeness and consumers' brand awareness. The results of the study substantiates this hypothesis such that informativeness of viral marketing message has a significant positive effect on consumers' brand awareness as the value of β and its significance level from table below show it ($\beta = 0.26$) and

is significant at 0.01 level. Hence, our first hypothesis that is “informative has a positive significant impact on brand awareness” is accepted. Regarding hypothesis number three (H3), the study hypothesized that, “Entertainment has a positive significant impact on brand awareness” is also accepted as the β value is 0.22 and is significant at level 0.01. For antecedent of viral marketing that is source credibility, this study hypothesized that source credibility has a positive significant impact on brand awareness and thus H5 is also accepted as the β value is 0.21 and is significant at 0.01 level. In the same way for H7 and H9, the β value is 0.22 and 0.26 respectively which are significant at level of 0.01. Hence, hypotheses number seven stating the direct effect of viral messaging with incentive on brand awareness as well as the ninth hypothesis stating the direct effect of consumers’ trust of the message on brand awareness are also supported.

Hypotheses H2, H4, H6, H8 and H10 were related with mediating relationship between the antecedents of viral marketing and brand awareness. The Baron and Kenny (1986) analysis was performed to check whether attitude toward viral marketing mediates the relationship between informativeness, message entertainment, source credibility, trust and incentives and brand awareness. For H2, the β value is 0.25 and is significant at level 0.00 leading to support of H2. Hypothesis 4 of the study in which attitude toward viral marketing mediates the relationship between message entertainment and brand awareness is also supported (H4: $\beta = 0.18$, $p < 0.05$). In a similar way, the respective beta values for hypotheses 6, 8 and 10 also provide support for the acceptance of these hypotheses (H6: $\beta = 0.17$, $p < 0.05$; H8: $\beta = 0.19$, $p < 0.05$; H10: $\beta = 0.22$, $p < 0.05$).

Thus, all the direct relationships (H1, H3, H5, H7, H9) as well as mediation hypotheses of the study (H2, H4, H6, H8, H10) are supported.

DISCUSSION AND CONCLUSION

Viral marketing could be considered one of the most important and cheap form of promotional technique. As in the current age, trend is dramatically moving towards internet and mobile phone devices, almost all businesses offer their services and products online. For this purpose, viral marketing message needs to be more effective. The purpose of this study was to analyze the effects of antecedents of viral marketing on consumers brand awareness. This research study finds that antecedents of viral marketing, that is, informativeness of viral message, message entertainment, message source credibility, trust and incentives has a positive relation with brand awareness. This study further finds that attitude toward viral marketing as a mediating variable positively influence the relation between antecedents of viral marketing and brand awareness.

Many brands nowadays use viral marketing as a promotional tool (Merisavo,

2007). Due to high speed of message transmission and behavioral responsiveness of viral marketing, its advantages are much greater over the conventional media and are easily quantifiable (Woerndl et al., 2008). It is a kind of low cost promotions as it reaches to everyone just by a single push. Not only this, but the trust-worthiness of the viral message also increases when it gets to people belonging to their social class (Evans, 2010). The main advantage of this marketing is that there are no boundaries as compared to the typical modes of communication (Goldsmith, Ronald & Horowitz, 2006). Antecedents of viral marketing addressed by previous researchers are informativeness, entrainment, source credibility, incentives and trust (Merisavo et al., 2007). Previous studies have found a positive relationship between the antecedents of viral marketing and its effectiveness (Zernigah et al., 2012). This study hypothesized the relationship between the antecedents of viral marketing and brand awareness with a mediating effect of the viral marketing. The result shows a positive relationship between antecedents of viral marketing and brand awareness. Being a mediating variable, attitude toward viral marketing also significantly influences the relationship between the antecedents of viral marketing and brand awareness. This implies that until the antecedents of viral marketing succeed in developing consumers' favorable attitude towards the viral marketing, its effectiveness would be at stake.

In the first hypothesis of the study it was hypothesized that informativeness has a positive significant relation with brand awareness. Hypothesis one of this study is accepted as the significant correlation and regression from Table -1 evidence this. According to Reyck and Zeger (2003) informativeness is the basic element of viral marketing. Basing this, the second hypothesis of the study hypothesized that attitude toward viral marketing mediates the relation between informativeness and brand awareness. This hypothesis of the study is also accepted and the correlation and regression analysis in step four of the tables evidence it.

Uninterested and boring information can spoil the brand image in customer's mind (Kelly et al., 2010). That is why entrainment is considered an important element of advertising message. According to Armstrong (2010) and Reinartz and Peter (2013) entrainment has positive relation with brand awareness. Basing the above literature Hypothesis three of the study proposed that entertainment has a positive significant effect on consumer brand awareness which is accepted in the light of results of correlation and regression analysis shown in table1. In the same way hypothesis four of the study proposed that attitude to viral marketing mediates the relation between entertainment and brand awareness. This hypothesis is also accepted (Step 4, Table 1).

According to Kelly et al., (2010) viewers normally ignore the ads that they receive on social sites because of the less credibility and hesitation of information

sharing. This shows that source credibility is a much needed factor of an effective advertising message. Receiving of message from peer group or social class enhances the credibility and reliability of the message (Palka et al., 2009). Thus, basing the above literature this study hypothesized (H5) that message source credibility has a positive relation with brand awareness. The study findings for its beta value and significance level reveal that this hypothesis is also accepted. In its hypothesis number six, this study hypothesized that attitude toward viral marketing plays a significant mediating role in the relationship between message source credibility and brand awareness as viral marketing message is mostly received from peer groups or social classes. This hypothesis of this research study is also accepted and the step four of the table evidences it.

Besides the above antecedents, people always look for some kind of financial benefits from direct marketing promotions (Drossos et al., 2007). Basing upon the literature, this study in its seventh hypothesis proposed that offering incentives to consumers positively affects their brand awareness and this hypothesis of the study is accepted as the beta value and significance level shown in the table confirm it. The eighth hypothesis of the study concerned the mediation effects of attitude towards viral marketing on the relationship of message inventiveness and brand awareness. This hypothesis was built basing the findings of the past researchers who believe that offering incentive and financial benefits in the viral message provoke the customers to accept promotion messages on mobile. This hypothesis was also accepted (Step fourth, Table-1).

Trust on the promotion message is also considered one of the most important elements of advertising. According to Garbarino and Mark (1999), trust on the promotion message helps in attaining consumer's attention, their brand awareness and their loyalty toward the product and brand. In its ninth hypothesis, it was proposed that trust on advertising message has a significant positive relationship with brand awareness and this hypothesis is accepted in the light of its respective beta value and significance level. The final hypothesis (H10) of the study is that viral marketing mediates the relationship between trust and brand awareness. Researchers on viral marketing has shown that viral marketing message is mostly trusted as consumers often receive it from their social and peer groups (Palka et al., 2009). This hypothesis of the study is also accepted (Step four, Table-1).

MANAGERIAL IMPLICATIONS

In the current age where the whole world is converting towards internet and mobile phones, importance of viral marketing message has increased many folds. Companies have got a chance to promote their product/brand and spread positive brand awareness with quite lesser expenses. The findings of this study suggest that companies intending to promote their products need to design viral mar-

keting message in a way that is attractive, more attention catching and convince consumers. As the findings of the study reveal, the designing of the viral marketing message would attract viewers' attention and hence greater brand awareness which will be instrumental in consumers' convincing. The findings of the study also suggest that a viral marketing message should be informative, entertaining and trustable. Offering incentives would further strengthen the acceptance of message and promoting it to peers and social class by consumers.

LIMITATIONS AND FUTURE RECOMMENDATIONS

This study has some limitation that can be entrained as future research gape. In this research study attitude of consumer has been taken and measured as a dependent variables further studies can be conducted by considering company attitude in viral marketing. Findings of this study can further be strengthened by considering the demographics of the VM message receiver by looking whether their education level effects their attitude toward viral marketing. Future research can be conducted by comparing the effect of viral marketing in high and low involvement products. In future studies considering factors like perceived value, consumer feelings and environmental or situational factors will furthers strengthen the results.

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4

Appraisal Process for Selection of Community Infrastructure Development Projects

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ABSTRACT

Project appraisal plays an important role in selecting the right project and is crucial to the final success of public investment projects. The importance of project appraisal rises when the scale of investments increases. The goal of this study was to map project appraisal process and its role in selecting the viable community infrastructure projects for efficient service delivery. For this purpose, economic analysis was carried out for 6 completed Community Infrastructure projects. The economic costs and benefits were assessed for a stratified random sample of 6 communities, out of the total number of 35 communities. Benefits from 6 completed schemes were higher with respect to economic activities, reduced depreciation of vehicles, fuel saving, increased value of houses and reduced Transportation cost for inbound, outbound farm commodities due to improved roads and linkages. Economic Internal Rate of Returns (EIRR) were calculated and ranged from 25 percent to 75 percent. The Benefit/Cost ratio was found positive for all projects at the cut-off rate of 15 percent. EIRR for the urban localities are calculated at 75 percent and 71 percent respectively. Results of the study revealed the best selection tool for economic analysis of any developmental project from theoretical side is NPV, and practical side is EIRR, due to the reason we accept projects which have EIRR greater than the cost of capital. And we accept any project when NPV is positive. Also we accept B/C ratio, when it is greater than 1. The study recommends that project managers and development practitioners should make use of the EIRR, NPV and B/C ratio most frequently when evaluating their projects which have been proved to be the best techniques.

Keywords: *Appraisal, Community Infrastructure Projects, Economic Analysis, EIRR, IRR, NPV, B/C Ratio*

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INTRODUCTION

Project appraisal is the process of assessing and questioning proposals before resources are committed. It is an essential tool for effective action in community renewal. It's a means by which way, we can choose the best projects to help them achieve what they want for their community. Infrastructure services, widely

deemed critical to economic development, trade, connectivity, social welfare, and public health, are underprovided in many regions and typically feature strongly in national development plans. Leading up to 2020, an estimated US\$ 836 billion-1 trillion will be required each year to meet growth targets worldwide (Ruiz & Wei, 2015). Global estimates of infrastructure investments required to support economic growth and human development lie in the range of US\$ 65- 70 trillion by 2030 (OECD, 2008). Governments need to determine as to how to allocate limited resources for infrastructure development at the time when financing gaps are large. Good practice suggests that economic and strategic project appraisals and feasibility studies provide a good basis for project prioritization via highest societal net present value.

The topic generally aims at providing necessary information about appraisal process which is required to evaluate the attractiveness of the desired investment considerations. It aims at elucidating and subsequently deciding the fate of the investments made as to whether either accepting or rejecting the proposal. For simplicity and accuracy three alternative methods of project evaluation and selection are being employed viz the Economic internal rate of return, the net present value and the Benefit Cost ratio. The topic signifies the very basic purpose of any investment decision in terms of net positive outcome or otherwise. The specific objectives were to examine the attractiveness of the various investment considerations and to evaluate each investment proposal on the basis of various Appraisal tools. The discounted cash flow methods are being employed to provide a more objective basis for evaluating and selecting the Community Infrastructure Projects. The Community Infrastructure projects in the Khyber Pakhtunkhwa (KP) were evaluated for the basis to determine as to how much the projects were affordable and sustainable for achievements of the desired goals.

REVIEW OF LITERATURE

Olayiwola and Adeleye (2005) defined infrastructural facilities as to those basic services without which primary, secondary and tertiary productive activities cannot function. Broadly this includes all public services like education, public health, transportation, communications and water supply. Likewise Vongai (2013) classified rural infrastructural facilities into three main types: namely, physical infrastructure – such as roads, water, rural electrification, storage and processing facilities; social infrastructure namely, health and educational facilities, community centers, fire and security services; institutional infrastructure which include credit and financial institutions, agricultural research facilities and social infrastructure.

According to Truong et al (2008), screening of projects should be done initially followed by appraisal of a project, and then subsequently reviewed by some independent forum. Furthermore, upon the availability of information and ca-

capacity of staff to technically examine projects, projects may be appraised using social cost-benefit analysis (SCBA) and extensive feasibility analysis. After doing so, selection of project may be followed based on the highest net present values (NPV) of the projects.

Lawrence (2009) reported that a comprehensive evaluation of projects may be undertaken economically that determine the cost benefits and cost-effectiveness of the projects as only the economic analysis cannot provide sufficient information about the positive impact of a project in a community.

According to Bosch et al (2007), many techniques are used for Evaluation of Infrastructural development projects. They maintained that one of the techniques, benefit-cost analysis (BCA) is undertaken in order to evaluate the projects from economic and social benefits and costs perspective enabling the developing countries to select appropriate projects for development purpose. The standard technique is to get the present value of annual streams of benefits and costs in the light of present interest rate in the market and then the benefit-cost ratio (B/C) ratio is calculated. However, net present value (NPV) may also be used. Another method employed for comparison is to calculate that rate of discount (called the internal rate of interest, IRR) which makes the present value of net benefits equal to zero. One of the difficulties with IRR is that it can have multiple values under certain circumstances. Despite certain subtle differences in their interpretation, B/C, NPV and IRR ratios could be considered essentially as being different ways of addressing the same problem. Although numerous techniques exist for the evaluation of public projects, the basic framework suggested by Cary (2008) constitutes the main basis for measuring social benefits and costs.

Bierman and Smidt (2013) reported that multiple criteria analysis is another technique of project appraisal that takes into consideration more than one criterion at a time while selecting or evaluating alternative investment projects. This methodology is more suitable for tackling decision problems where impact cannot be measured on a cardinal system.

Vongai (2013) reported that Evaluation of Infrastructural Interventions includes (a) subjectivity in weighting of various inputs and outputs (e.g. weighting of income distribution and adjustment for merit good and bad), (b) it uses input data in original or natural units (avoids conversion problem of inputs and outputs into monetary equivalents), and (c) it includes external considerations (uncontrollable factors affecting performance). It was further reported that the main objective of benefit-cost analysis (BCA) is to provide a satisfactory method of evaluating the economic and social benefits and costs of projects in developing countries.

Pike (2005) concluded that a risk-factor discount rate alone cannot be used to assess the risk associated with a project. However, analytical risk assessment

techniques that employ discounted cash flow methods require the application of an appropriate discount rate. An entire project should not be judged by one or two summary numbers, if the IRR and NPV are used in conjunction with the annual cash flows, they are a powerful means of comparing and selecting investment opportunities.

Qureshi (2010) explained that The cost-benefit analysis consisted of two elements: (i) strategic network economic analysis for periodic maintenance and rehabilitation of the entire National Highways Network and (ii) economic analysis of the rehabilitation and improvement works (550 km) and the resurfacing and strengthening works (306 km) of the project. The evaluation was done using the most recent version of the Highway Development and Management Model (HDM-4), which simulates highway life cycle and vehicle operating conditions and costs for multiple road design and maintenance alternatives.

Shahnaz (2012) concluded that an overall Economic Rate of Return (ERR) of the infrastructure developments could not be calculated as the project is demand driven, and systematic data collection for the initial pipeline has not been carried out in projects completed in Punjab, Pakistan. In another study, Mudassir (2014) confirmed that the results of the cost benefit analysis show that the project's viability is independent of the assumptions used. If the economic benefits that could not be measured were included in the analysis, the benefits to the government and the economy would be even higher. The NPV of government costs are insignificant compared to the financial and economic benefits of the project. Naturally the IRR of the project is very high. Even if the entire cost of the project is treated uniformly, and the loan is also treated as investment cost early in the period, so that NPV of costs is increased, benefits are still much larger than the NPV of costs. The minimum revenues required to equate the NPV of financial benefits to NPV of costs will result in economic benefits that far exceed the costs of the project and the ERR of the project will still be significantly higher than the rate of discount.

RESEARCH METHODOLOGY

Project appraisal was conducted with respect to NPV, B/C ratio and EIRR for six (6) completed projects duly selected through random sampling technique. The population for the projects was 35 community infrastructure projects operated under Department of Local Govt: and Rural development, KP. The basic purpose of these schemes was provision of sanitation and drainage facilities, drinking water supply schemes, and village roads. Six communities were randomly selected for research analysis. These includes: Hassam, Ghorazai, Tehkal Bala, Hayat Khel, Kanju, and Sheraghund. Considerations for the sites sample included were geographic spread, and covering all sub-components of Community development

and covering the physical diversity of the community. The study was based on the secondary data which was collected from site inspection, the feedback from field visits, inspection of various records kept at Tehsil Municipal Administration (TMA) office, visual reports of O&M state at Community level, TMA's ability to generate funds for O&M, and physical demonstration of the community share to maintain project activities. Impact assessment surveys with comprehensive social, institutional, and sustainability questionnaires will be conducted in each of the communities/sites.

RESULTS AND DISCUSSION

The results revealed that The costs and benefits of the infrastructure component of the project (slightly more than half of total project costs), based on conservative assumptions about the increase in property values resulting from the infrastructure provided under the project was analyzed on the internal economic rate of return on infrastructure investments at 31%. In the six communities sampled, the internal economic rate of return varied between 18% and 28%. Risk analysis indicates that the economic returns of these projects remain highly positive even under a range of more pessimistic assumptions about costs and benefits. The post project assessment shows that the recorded benefits from completed schemes were: Higher economic activity, reduced depreciation of vehicles, fuel saving, increased value of houses, and reduced transportation cost for inbound/outbound farm commodities, due to improved roads and linkages. Provision of drains or street pavement resulted in better hygiene conditions, improved health, and higher work-efficiency and reduced medical bills. Except gastroenteritis, most waterborne diseases such as typhoid, dysentery, cholera, hepatitis and malaria have been reduced where water supply schemes were implemented. On the basis of the assumptions used for the post project economic assessment, the sample of completed sites and a very conservative approach to quantify benefits of increased value of agricultural land of the areas benefited, assuming an average farm size, appreciation in value of residential houses and reduced medical bills, EIRRs were calculated for six completed community projects and found to range from 25% to 75%. The B/C ratio is positive for all communities at the cut-off rate of 15%

Table-1: Economic Analysis of Projects at all selected sites

Community	NPV @ 15%	B/C @ 15%	EIRR
Hassam	1.11	1.15	25%
Ghorazai	3.93	1.36	37%
Sheraghund	1.73	1.26	30%
Tehkal Bala	8.64	2.02	71%
Hayat Khel	3.79	1.38	37%
Kanju	13.08	2.19	75%

that is used by the Planning Commission. EIRR for the urban localities (Kanju, Tehkal Bala) is calculated at 75% and 71% respectively (Table -1). The high return in these localities is attributed to the relatively higher appreciation in the value of farm land and residential houses.

The appraisal of projects at each individual community/sites was also carried out.

Table-2: Economic Cost/Benefits Analysis of Projects at Hassam

Hassam						
Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	7.33					-7.3
2	0.22	1.48	2.13	0.01	3.6	3.4
3	0.22	1.48	2.13	0.03	3.6	3.4
4	0.22	1.48	2.13	0.04	3.7	3.4
5	0.22		2.13	0.05	2.2	2.0
6	0.22			0.05	0.0	-0.2
7	0.22			0.05	0.0	-0.2
8	0.22			0.05	0.0	-0.2
9	0.22			0.05	0.0	-0.2
10	0.22			0.05	0.0	-0.2
NPV at 15%	7.3	2.9	5.3	0.2	8.4	1.1
B: C = 1.15						EIRR 25%

The results of which are presented in separate tables as given below:

Data related to analysis of projects at Hassam community/site is given in the Table-2. The result reveals that NPV of the projects was 1.11 @ 15%, while B/C ratio was 1.15 followed by EIRR value at 25%.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV-COST = 8.4 - 7.3 = 1.1$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 25% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 1.15 so we accept this scheme.

Table-3: Economic Cost/Benefits Analysis of Projects at Ghorarzai

Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	11					-11.0
2	0.33	3.39	3.16	0.02	6.57	6.2
3	0.33	3.39	3.16	0.04	6.60	6.3
4	0.33	3.39	3.16	0.06	6.62	6.3
5	0.33		3.16	0.07	3.23	2.9
6	0.33			0.07	0.07	-0.3
7	0.33			0.07	0.07	-0.3
8	0.33			0.07	0.07	-0.3
9	0.33			0.07	0.07	-0.3
10	0.33			0.07	0.07	-0.3
NPV at 15%	10.9	6.7	7.9	0.2	14.8	3.9
B: C = 1.36						EIRR 37%

Similarly, analysis of projects at Ghorarzai community/site can be seen in the Table-3. The NPV was 3.93, B/C ratio was 1.36 and EIRR was 37%.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV-COST = 14.8 - 10.9 = 3.9$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 37% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 1.36 so we accept this scheme.

Table-4: Economic Cost/Benefits Analysis of Projects at Sheraghund

Sheraghund						
Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	7					-6.8
2	0.20	1.21	3.39	0.01	3.40	3.2
3	0.20	1.23	3.39	0.02	3.41	3.2
4	0.20	1.23	3.39	0.03	3.42	3.2
5	0.20		3.39	0.03	3.42	3.2
6	0.20			0.03	0.03	-0.2
7	0.20			0.03	0.03	-0.2
8	0.20			0.03	0.03	-0.2
9	0.20			0.03	0.03	-0.2
10	0.20			0.03	0.03	-0.2
NPV at 15%	6.8		8.4	0.1	8.5	1.7
	B: C = 1.26					EIRR 30%

The data for Analysis of Projects at Sheraghund site is given in Table-4. For this site NPV was 1.73, B/C ratio was 1.26, and EIRR was 30%.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV-COST = 8.5 - 6.8 = 1.7$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 30% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 1.26 so we accept this scheme.

Table-5: Economic Cost/Benefits Analysis of Projects at Tehkal Bala

Tehkal bala						
Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	8.53					-8.5
2	0.26	3.43	3.98	0.03	7.4	7.2
3	0.26	3.43	3.98	0.08	7.5	7.2
4	0.26	3.43	3.98	0.12	7.5	7.3
5	0.26		3.98	0.14	4.1	3.9
6	0.26			0.14	0.1	-0.1
7	0.26			0.14	0.1	-0.1
8	0.26			0.14	0.1	-0.1
9	0.26			0.14	0.1	-0.1
10	0.26			0.14	0.1	-0.1
NPV at 15%	8.5	8.3	8.4	0.4	17.1	8.6
B: C = 2.02						EIRR 71%

The data as analyzed for the projects undertaken at Tehkal Bala community/site is given in table-5. The results depicted that NPV was 8.64, B/C ratio was 2.02, and EIRR was 71% for the stream of these projects.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV-COST = 17.1 - 8.5 = 8.6$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 71% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 2.02 so we accept this scheme.

Table-6: Economic Cost/Benefits Analysis of Projects at Hayat Khel

Hayat Khel						
Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	10.0					-10.0
2	0.30		5.49	0.00	5.5	5.2
3	0.30		5.49	0.01	5.5	5.2
4	0.30		5.49	0.02	5.5	5.2
5	0.30		5.49	0.02	5.5	5.2
6	0.30			0.02	0.0	-0.3
7	0.30			0.02	0.0	-0.3
8	0.30			0.02	0.0	-0.3
9	0.30			0.02	0.0	-0.3
10	0.30			0.02	0.0	-0.3
NPV at 15%	9.9		8.4	0.1	13.7	3.8
	B: C = 1.38					EIRR 37%

Project appraisal analysis for the Hayat Khel community/site is given in Table-6. Analysis resulted in the figures as NPV: 3.79, B/C ratio: 1.38 and EIRR: 37%.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV-COST = 13.7 - 9.9 = 3.8$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 37% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 1.38 so we accept this scheme.

Table-7: Economic Cost/Benefits Analysis of Projects at Kanju

Kanju						
Years	Cost	Benefits				Net Stream
		Land	House	Health	Total	
1	11.0					-11.1
2	0.33	0.47	9.14	0.03	9.64	9.3
3	0.33	0.47	9.14	0.08	9.69	9.4
4	0.33	0.47	9.14	0.13	9.73	9.4
5	0.33		9.14	0.14	9.28	8.9
6	0.33			0.14	0.14	-0.2
7	0.33			0.14	0.14	-0.2
8	0.33			0.14	0.14	-0.2
9	0.33			0.14	0.14	-0.2
10	0.33			0.14	0.14	-0.2
NPV at 15%	11.0	0.9	22.7	0.5	24.1	13.1
B: C = 2.19						EIRR 75%

The analysis of the projects carried out for the site at Kanju can be seen at Table-7. The NPV for the projects was 13.08, B/C ratio was 2.19 while EIRR was 75%.

Decisions criteria:

1. NPV is positive, i.e. $NPV = PV - COST = 24.1 - 11.0 = 13.1$ so we accept this scheme.
2. IRR is greater than cost of capital, i.e. 75% so we accept this scheme.
3. Benefit cost ratio or profitability index is greater than 1, i.e. 2.19 so we accept this scheme.

In the financial analysis, it is ascertained that sufficient counterpart funds and commitment are available to carry out by the TMAs. All the projects in these sites were found viable and acceptable for the purpose of implementation of these projects.

CONCLUSION AND RECOMMENDATIONS

On the basis of the above results, it is concluded that Net Present Value, Economic Internal Rate of Return and Benefit Cost Ratio are the most important tools to be employed for arriving at a particular decision regarding acceptance of

the project or otherwise. Since the projects conducted in the selected communities or sites were found viable as these projects have the benefits resulting in positive NPV value, greater IRR and High B/C ratio therefore these projects were recommended for implementation. The costs and net stream calculated over the 10 years basis and compared with net stream has shown that such projects are worth to deliver to the community. This may be due to the fact that a detailed work out on the project feasibility is done. Furthermore, authentic and reliable data of the respective communities also play a very important role as it make basis for the identification of real needs of the community. Similarly, the projects will have economic benefits and impact, and cost-effectiveness when its NPV and IRR are above the cut-off rate. Economic benefits are expected to be in the same range provided the technical ability of the TMA to implement and deliver in time the same design, costing, quality and performance standards of the schemes. The financial analysis further shows that the required government budget and cash-flow may be made available for effective financial implementation with timely release of fund. Therefore it is recommended that concerned staff should be provided with training in designing and managing projects. Financial and economic rates of return should be considered jointly, and in comparison with sectoral benchmarks. Under such approach, greater consistency in project appraisal and evaluation would be needed. Investment costs of community driven developmental projects with active participation of the beneficiaries are likely to be substantially lower than when implemented by government entities. Furthermore clearly stated project rules and proper understanding of these rules (selection criteria, rules for scheme identification and prioritization) by both Project staff and communities and the correct application of these rules, are essential ingredients of project success. An M&E system should include process indicators and mechanisms for timely feedback to project management and identify remedial action to allow problems to be addressed at the right time.

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5

Post 18th Amendment Measures for Agriculture Sector Development in the Province of Khyber Pakhtunkhwa, Pakistan

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ABSTRACT

Federal Government of Pakistan decided to transfer agricultural functions to the Provinces through 18th amendment to the constitution in 2010. The present research aimed at probing the planning for development of agriculture sector in the Province of Khyber Pakhtunkhwa after transfer of agricultural functions and to answer whether agriculture sector development happened or otherwise. The study was conducted during 2014-15, based on primary and secondary data. Key informant interviews were made with 30 respondents followed by deliberation with experts to validate the collected information. It was realized that transfer of agricultural functions were partially exercised and delegation of agriculture functions could not be completed as envisaged in 18th Amendment. This has reflections for smooth implementation and planning programs at the Provincial level. Agriculture Department has scale planning and arrangements with slow pace in terms of law, financial resource mobilization and operational mechanism, planning and effective implementation with anticipated development of agriculture sector in the Province. The transfer of agriculture functions is in formative stage and thus resulted in low growth of agriculture sector in the Province. Additional factors identified as responsible for low growth in Agriculture sector were improper policy implementation, improper resources mobilization, less investment, low quality inputs, fragile security situation and severe rains followed by floods etc. Establishment of new sections and departments on devolved agricultural functions is highly recommended. The devolution of power from Federation towards provinces and from province to districts definitely take time to mature, however, movement from decentralization to centralization should not be supported which is the biggest emerging challenge in the process of devolution.

Keywords: Devolution, Agriculture, Rural economy, centralization Reforms & Preparation, Legislation, Financial resources, administrative transfer.

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INTRODUCTION

After passing of 18th Amendment, in June 2011 several important agricultural functions and responsibilities were transferred to the provinces including eco-

conomic studies for framing agriculture policy, farm management research, crop forecast & estimation, crop insurance & marketing intelligence, agricultural commodity research, soil survey, introduction of special crops like jute, tea, olive etc, standardization of agricultural machinery, agriculture in under-developed areas, economic planning & coordination with regard to agriculture cooperatives and high level manpower training for agriculture research (Cabinet Division Islamabad Notification No.4-9/2011-Min.1 dated June 30, 2011). This transfer of agriculture functions made the Province of Khyber Pakhtunkhwa sovereign in making policy decision, regulations and legislations for further improvement of agriculture sector in the province. Agriculture plays vital role in the economy of Pakistan. Agriculture and its allied sectors such as productivity, agro-based industry and agriculture trade have significant importance in development and promotion of agricultural economy of the country. Proper management and administration of these inter-related sectors result in prosperity and progressive development of an agricultural economy.

Pakistan has fertile land, hardworking farmers and ample quantity of irrigation water. It is clear from different data sources that agriculture in Pakistan is earning 45% of foreign exchange from merchandise exports, 43.7% of labour force involved in it and its share in GDP is 21%. Additionally 67.5% rural population in Pakistan directly involved in it. Thus agriculture is the main component of national economy and it has many forward and backward linkages with other sectors. Pakistan agriculture is in the process of transition and it is expected that with the passage of time traditional agriculture will be transformed into a highly modernized agriculture. After transformation, agriculture in Pakistan may result in welfare and prosperity of the people of Pakistan (Pakistan Economic Survey 2013-14). Similarly, CPDI (2014) reported that agriculture is one of the major contributors towards Khyber Pakhtunkhwa economy and workers employment. Likewise, it is the essential source of food security and sustenance for majority population in the province. Furthermore it has been indicated in agriculture strategy report that Khyber Pakhtunkhwa is rich in commercial harvests, for example, tobacco and sugarcane while its production of staple food items like wheat and rice is very low. Khan (2012) reported that the province of Khyber Pakhtunkhwa and FATA share in total population of the country is 16 percent while the total agricultural area of the province is 13.89 million acres which includes 22.23 percent under forest, 23.90 percent under growing with crops and 22.49 percent cultivable fallow land. The agro-climatic suitability and fertile soil of the province result in good quality fruits and vegetables production. Around 30 different types of fruits, 26 vegetables and off- season vegetables are cultivated at both subsistence and business scale in the province (Government of NWFP, 1996: 100).

Additionally, Khan (2012) noted that highly diversified agriculture is in prac-

tice in this province including adjacent tribal areas and it has been reflected in the agro-ecological zoning map of the country published by Pakistan Agricultural Research Council. In this map it is very clear that 6 out of 10 agro – climatic zones lies in the Province of Khyber Pakhtunkhwa and this climatic variation results in diversified agriculture in the province (PARC, 2002). Moreover, agriculture provides livelihood and job to 48 percent work force and adds 40 percent to provincial economy (Nazir and Jalely, 1992:4 cited in Khan, 2012). Alongside forest and crop agriculture, there exists huge potential of dairy farming. Presently the livestock sector input to provincial agricultural saving is about 44 percent in employment and 20 percent in total farming proceeds (Khan, 2012). As evident from facts and figures, agriculture is the main foundation of food security, living and income in the Province specifically remote villages and rural settlements; however, its soft and hard structure is thin and weak. Existing frame works operational for development of agriculture sector both at national and provincial levels were in need of thorough review. This why the Federal Government decided changes and approved 18th amendment for the purpose of better services delivery and decision making. Thus several federal functions of agriculture were shifted to provinces for the purpose of better planning and implementation. Presently it was too early to judge the concluding impact; however, it was of paramount significance to look into the Provincial agriculture department planning, and determine emerged challenges in light of transfer of these functions on overall development of agriculture sector in the Province. Additionally it was also important to investigate necessary measures which were considered including legislative frame works in the changing situation, financial recourses mobilization, and devising an operational mechanism for smooth implementation of the transferred functions etc. Keeping in view the above situation it was required to reinforce management and administrative systems to facilitate progressive agriculture in the Province so that a more vibrant economic contribution of agriculture sector realized after full implementation of delegated functions of agriculture sector.

STATEMENT OF THE PROBLEM

As we know, the purpose of 18th amendment was to strengthen provinces and perish duplication of functions in Federal and Provincial Agriculture set ups, so that related departments could plan better programs for further development of their respective agriculture sectors and serve farming communities efficiently and effectively through improved service delivery in lower administrative units of the provinces. Therefore, scale preparations of the respective administrative functionaries in terms of law, financial resource mobilization and operational mechanism, planning and effective implementation must be investigated and reviewed to determine whether agriculture sector development happened or otherwise. Ad-

ditionally it is justified to review the impact of policy decision on sector improvement when several new functions shifted to the provinces from federation. The transfer of functions from Federation towards provinces definitely take time to mature and bearing fruits for masses, however, the necessary prerequisite in term of capacity building, framing of required laws, resources mobilization and quality control and monitoring might be in pipeline or in place by respective provincial administrative units at the recipient ends. The present study was confined to study the measures adopted after passing of amendment for the development of agriculture sector of the Province of Khyber Pakhtunkhwa. This research determined the degree and scale of arrangements of agriculture Department achieved after 18th Amendment. The research also reflected on Planning and implementation of the Government of Khyber Pakhtunkhwa carried out in light of 18th amendment for further promotion and improvement of agriculture sector.

RESEARCH METHODOLOGY

This research based on primary and secondary data. First of all previous research work was critically reviewed to establish a sound way ahead. Officer in provincial secretariat Peshawar including section officer agriculture, livestock's and general administration / accounts were contacted as to provide details and documents regarding devolution of agriculture functions and shared planning and preparations of Provincial agriculture department. After finalizing the literature review ten main District of the province including Peshawar, Mardan, Charsadda, Nowshera, Haripur, Bannu, Swat, Buner, Hangu and Kohat were randomly selected to verify the arguments generalized through secondary data. Executive District Officer Agriculture (EDO) from 10 Districts and 10 Officer Agriculture one from each district was telephonically contacted to ascertain their arguments, knowledge and field experiences regarding devolution implementation and Agriculture Sector Development in the Province. Moreover, Agriculture experts in academia and research were also contacted to include their view point on devolution to further improve final findings of this research study. Additionally 10 farmers among the farmers in 6th National Farmer Conventions, 2015 held at PARD who participated from Khyber Pakhtunkhwa were randomly selected and their views regarding Provincial Government Plan Programs were recorded to validate findings of this research study. The information collected was reproduced as collective wisdom of respondents under sub heading explained in results and discussion section of this report. The research paper was submitted to PARD administration for approval & publication in its Journal of Rural Development and Administration (JORDA).

PURPOSE AND OBJECTIVE OF THE RESEARCH STUDY

The major purpose of this research was to determine the contribution of reforms process on the development of agriculture sector in the Province of Khyber Pakhtunkhwa in post 18th amendment scenario. This amendment provided an environment in which the provincial governments could amend and frame required new laws, established new institutional frameworks, developed plan programs and strategies and build capacity to effectively execute their newly acquired responsibilities, achieve targets and objectives related to agriculture sector and produced results. Specific objectives of the research were to:

- a. highlight the planning process of the Provincial Agriculture Department of Khyber Pakhtunkhwa for the development of Agriculture sector in the province after 18th amendment including administrative, financial and legislative arrangements
- b. probe and Reflect on degree and scale of improvements achieved in agriculture sector of the Province after 18th Amendment
- c. determine emerging challenges in the wake of 18th Amendment.
- d. suggest policy level recommendation for future consideration of concerned stakeholders.

LITERATURE REVIEW

The 18th amendment to the constitution of Pakistan devolved many important functions to the provincial governments including agricultural functions (Jamy, 2012). Earlier ground reality was straight away rejected and a large ministry of food and agriculture in the Federal Government of Pakistan established and strengthened (Bakhshi et al., 2012). When it was time to correct past mistakes, the ministry strongly opposed its dissolution. Thus another mistake was made, the ministry proposed its re-embodiment as the Ministry of Food Security and Research (Jamy et al., 2012). Continuity of reforms results in actual planned objective achievement and better governance. But here resistance generated in circles against this decision. On the contrary research findings strongly support decentralized power sharing for effective service delivery and implementations of plan programs. Like Pakistan other developing countries also faced problems in realization of devolution benefits. SDPC (2012) reported that federalism is experienced in the 10 developed and 18 developing countries of the World. However its performance has been weak in developing countries because devolution has not promoted participation, responsiveness or accountability. Moreover, Azfar and Livingston (2002) explained that no positive impact of decentralization was observed on efficiency and equity of local public service provision in Uganda and highlighted decreased performance. Similar findings have been shared by West

and Wong (1995) for rural China. Nyangito, Nzuma, Ommeh & Mbithi (2004) noted that Kenya's agricultural sector performance after implementation of policy reforms gone down during the late 1980s to the early 1990s.

Furthermore, devolution from Center to Province is possible but its further extension to downstream farmers in districts and villages is always a big challenge. Poor policy implementation results in low performance. Daniel (2012) examined the effects of economic reforms on the performance of agricultural sector and proved that after reforms the Agriculture contribution was on the negative side. Similarly Randi (2006) reported that the national devolution program in Malawi in 2001 gave no enormous push to agricultural development. Further in higher ranks complete absence of energy, commitment and unwillingness to exchange control and decentralize assets also observed. Qaiser, Jean-Paul, Christopher & Wendmsyamregne, 2014 determined that Decentralization of power to the lower tiers should be resulted in improvement of public services delivery, however very few efforts of investigation have been carried out in this regard in Ethiopia. In case of Pakistan similar expectations were foreseen at the time of its approval from the National Assembly. However weak administrative coordination and Government support in smooth implementation of the 18th Amendment seems in infancy. It has been reported that the dream of democratic, institutional and economically prosperous Pakistan might be affected and it has repercussion for Pakistan (UNDP, 2015). As a matter of fact, expanded obligations require limit upgrade and effectiveness with respect to provincial agricultural Departments and evidently province of Khyber Pakhtunkhwa confronting budgetary and capacity limitations, deficiency of technically sound manpower, absence of adequate innovation and lastly the new recipients appear to be not well arranged to take care of the devolved subjects (Tahir, 2012). In these circumstances, there is a need to patch up the national agrarian framework and support planning to enhance coordination so as to evade duplication and overcome wastage of legitimately small accessible assets. Association of all partners with goal of interest driven research efforts and to satisfy the necessities of region/zones lingering behind in farming exploration should be the basic aim of future agriculture development planning in Pakistan. Developments acknowledged so will at last upgrade the procedure of commercialization of advancements. There is a need to change the present open resource administration approach (Government of Pakistan, 2013). Lastly, Shah (2012) described that the 18th amendment is based on good omen and intentions and it should be observed as positive change in shared Governance system applicable in the Country. He argued the present stage of transfer of power and authority in Pakistan a step ahead for reducing disparities in varied ranks of Governance at Federal and Provincial level. He added that 18th amendment is a step in providing more flexible provincial autonomy and termed the transfer of functions

as an embryonic development for better service delivery and public sector Governance in Pakistan in the days ahead. To its full realization further correction and review is required. CPDI (2014) quoted in the words of its leading author, “the most comprehensive restructuring of the federal and provincial administration since 1947” and explained that post 18th amendment situation is like a relatively loser central control and an extended authority and responsibility of the provinces and as such it has far reaching and multi-faceted impacts on both Federal as well as Provincial governments.

RESULTS & DISCUSSION

The results and discussion based on interactive discussion and consultation with management of agriculture sector in the provincial secretariat and published articles elsewhere. A structured interview schedule was used to generate a collective view point of experts working in this sector over the commitments and contributions made by Agriculture Department after transfer of functions from Federal to Provincial Purview. The results are summarized as detailed below.

Status of Agriculture Functions Transferred Under 18th Amendment

Prior to 18th Amendment agriculture was treated as residual subject and 39 functions were carried out by former Federal Ministry of Food & Agriculture. These functions were deleted, clubbed with other functions or devolved to Provinces as decided in the Cabinet and circulated vide Federal Government Cabinet Division Islamabad Notification No.4-9/2011-Min.1 dated June 30, 2011 and the current status of agriculture functions of former Ministry of Food & Agriculture functions reflected in research work of Ahsan (2013). It has been explained that out of 39 functions operational under former Ministry of Food & Agriculture (MINFAL), 11 devolved to Provinces, 26 were transferred to other Ministries and 2 were deleted. In case of attached departments 4 were wound up, 7 transferred to other Ministries and 1 devolved to Provinces. After detailed examination the situation can be explained in two ways.

Firstly, agriculture was a residual subject; therefore there was no justification in the first place for the existence of the Ministry of Food and Agriculture with such a large portfolio. This was clearly a historical wrong and the 18th amendment provided an opportunity for correcting it. However, the opportunity was missed and majority of functions were retained under a newly created ministry of Food Security & Research. It is difficult to understand why there was a need to keep agricultural storage, seed testing and certification, agricultural research, grading, etc. in the federal purview. It is also noteworthy that these functions were already being performed by the provincial governments, in parallel, with the Federal Government. Is duplication of function wise and necessary? For example, the

Khyber Pakhtunkhwa has an elaborate agricultural research network known as Khyber Pakhtunkhwa Agriculture Research System with a mandate similar to the one pursued by the Pakistan Agricultural Research Council retained by the Federal Government.

Secondly, it was very difficult to understand that out of twelve departments/organizations only four attached departments were wound up and actually only one was devolved to the provinces. The only one devolved attached department – Pakistan soil survey – was transferred to Punjab province along with assets and liabilities for the reason that its offices, infrastructures and other resources were located in Lahore and without assets to other provinces. The above situation clearly depicts that effectively none were devolved to the provinces. A serious question on smooth transfer of power in the wake of 18th Amendment is valid. Why former Ministry of Food Agriculture & Livestock abolished & why a new Ministry of Food Security & Research created with similar function?

Mr. Shah, Section Officer Agriculture Department termed this as movement back from decentralization to centralization and confirmed that in this situation Khyber Pakhtunkhwa has to do a lot of groundwork and research, after that a comprehensive case preparation followed by submission is required through relevant committee of Inter Provincial Coordination Department in consultation with other Provinces to set aside such issue. The results are in confirmation to the findings of CDPI (2014) wherein recommendations have been given to Federal and Provincial Governments to review and restructure again agriculture subject functions for efficient implementation in line with the spirit of 18th Amendment.

Pre & Post 18th Amendment Era Performance of Agriculture Sector in KP

The overall performance of Agriculture sector in the Province of Khyber Pakhtunkhwa before and after devolution was found volatile. The agriculture GDP growth was only 2.2 percent, fisheries moved up; forest performance was good while livestock was less than 2 percent during 2004-05 (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015). Similar performance observed in preceding years as well because the country in general and the Province of Khyber Pakhtunkhwa in particular faced severe problems of militancy, internal migration of huge number of population (farmers), price hike 2008 and disasters which ultimately resulted in poor and low performance of agriculture sector and physical targets achievements. The donors funding in agriculture sector was found very less in last 10 years and funds shifted to other sectors proved a serious setback for Agriculture Sector growth in the Province. Moreover, PSDP project of Federal government could not completed and implemented effectively in post devolution period and these factors resulted in lower performance of Agriculture sector in the Province especially after devolution. Additional factors identified as respon-

sible for low growth in Agriculture sector were improper policy implementation, improper resources mobilization, less investment, low quality inputs, fragile security situation and severe rains followed by floods etc. In the recent past several Government schemes and collaborative ventures with international donors pave a way for private sector investment in agriculture sector. Government circles and planning apparatus showed commitments to achieve targets after making investment and implementing short, medium and long term actions as envisaged in the new approved policy of agriculture (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015).

Farmers Perception of Agriculture Development in the Wake of 18th Amendment

When farmers were asked about the 18th amendment, they were found unaware and declared that the passage of the 18th amendment have not affected their production and all the prevailing issues of pre 18th amendment era including water scarcity, higher prices of fertilizers, low extension visit, low usage of modern information and crop technology, small land holdings and other costly agriculture inputs existed. They pointed out that road infrastructure from farm to the market place in is in miserable shape and permanent support price mechanism does not exist for cash crops.

The Section Officer agriculture admitted that all these issues still hampering overall growth and development of agriculture sector; however, he confirmed that the new approved policy will accommodate such problems considerably. Government has initiated several ventures for farmer benefits including free wheat seed distribution among farmers throughout the Province. Additionally it has been indicated by Finance Department White Paper that the department of Agriculture has under-taken after devolution a number of unique/new activities in the most recent five years under the ADP programs for speedy advancement of agriculture in Khyber Pakhtunkhwa Province. A marvelous venture Gomal Zam Dam Command Area Development and On Farm Water Management for High Value and High Efficiency Agriculture Project for farm area improvement and water management underway mostly in DI Khan and Tank regions with an aggregate expense of 3373.350 million including foreign aid component of Rs. 2200.000 million has been affirmed and operational since in 2014-15, additionally block allocation of Rs.1587.000 million has been made for combined 46 ADP ventures out of which 31 are ongoing or in progress projects with allocation of Rs.1052.841million and 15 are new with provision of Rs.534.159 million (Finance Department KPK White Paper 2014-15). It is expected that after proper implementation of the proposed planning considerable change would be achieved in the agriculture sector of the Province of Khyber Pakhtunkhwa. The low perfor-

mance have been discussed in CPDI (2014) report and restructuring of the department and establishment of new wings on devolved functions recommended along with new policies and plan programs in Agriculture sector under incremental budget arrangements.

Provincial Government Agriculture Department Planning to Integrate Post 18th Amendment Situation.

All respondents depicted that from administration perspective transfer of agricultural functions and assignments' was genuinely attractive and all things considered in totality, the eighteenth amendment exhibits a forward-looking, positive and solid motivation for enhancing administration, reinforcing institutional roles and preparing for more coordinating federation and alliance of provinces. In any case, absurd arrangements and interferences disintegrated general soul and motivation behind the 18th Amendment. Federal and Provincial Governments have arranged plan programs and frameworks to integrate the imminent change effectively.

Respondents concurred that through passing of the amendment, the position of Federation has changed to participatory one and now it is the compulsion of the Provinces to arrange improvement ventures and to address the general population's requirements through making better financial control and to chalk out strategies at their levels.

Respondents also confirmed that soon after passing of 18th Amendment, the provincial government reinforced Provincial agriculture department to prepare necessary policies, frameworks, laws and strategies to acquire maximum output for the sector in the changing scenario of devolution.

Following were the highlighted planning and achievements of the Provincial department of agriculture to integrate post 18th Amendment situation.

a) Approval of New Agriculture Policy in Post 18th Amendment Scenario

Following the historical 18th Constitutional Amendment and subsequent transfer of agriculture functions to the provinces resulted in the demand for framing new Agriculture Policies, frameworks and legislation. Mr. Muhammad Tahir Section Officer General Agriculture Department Khyber Pakhtunkhwa confirmed that during 2012 Agriculture Department Government of Khyber Pakhtunkhwa initiated the required consultation with stakeholders of the sector and prepared draft agriculture policy which was finally approved from Provincial Cabinet in 2015 after necessary consultation as to address issues in agriculture sector of the province.

Respondents were of the opinion that the new agriculture policy is expected to boost agriculture sector output and thereby maximize gains of farmers.

The policy is focused on framing new strategies, frameworks and laws aimed at boosting economic growth and prosperity for farmers involved in the agriculture sector specifically improving agriculture services in the down tiers level i-e districts and villages in the province. This policy targets main five areas of concern required and identified for progressive agriculture sector in the province including strengthening coordination and service delivery systems, creating an enabling environment for the private sector investment, introduction of participatory technologies, upgrading and strengthening existing legislation, tax relief in agriculture sector and research and development. The policy is under implementation in line with comprehensive development strategy 2010-2017 developed by the planning and development department aimed at poverty reduction and diversification of agriculture economy in the province while proposing an investment of Rs 10-14 billion per annum in this sector (CDS 2010-2017 as cited in Agriculture Policy of Government Khyber Pakhtunkhwa, 2015). The policy also dictates promotion of sustainable agriculture, security of food, income for framers and source of employment after achieving the following specific goals and objectives in the province.

- Enhancing Agriculture sector productivity and competitiveness through ventures like improvement in supply chain, value addition, and technology transfer and business promotion.
- Resolve food security and incomes needs of the vulnerable section of the population through targeted actions.
- Improve national resource management, adaptation to climate change and disaster risk management.

To ensure effective implementation of the policy, the agriculture department has a plan to setup a governing body which should guide and monitor the implementation of the policy in order to achieve its short, medium and long term goals. The provincial government is committed to achieve economic growth in agriculture sector and reduce poverty levels of the province in general and of farmers in specific. It is also anticipated that the above policy participatory formulation and implementation through administrative forces will definitely improve agriculture sector productivity and overall contribution in rural economy of the Province as compared to pre-devolution era. This reflect that the 18th Amendment created an environment in which the provincial government of Khyber Pakhtunkhwa amended its policy on agriculture, established new institutional frameworks and is in the process of designing new plan programs with better execution and controlling arrangements to deliver and attain overall improvement in agriculture sector (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015). The results are in confirmation to the findings of CDPI (2014) wherein recommenda-

tions have been discussed for gradual restructuring of agriculture department and framing of more policies like provincial food security policy, inputs standardization policy, water infrastructure improvement and others for efficient integration of newly assigned functions in the existing Agriculture sector frameworks.

b) Strengthening Farm Service Centers

During interview session it was realized that Presently 25 Farm Services Centers spread in 25 districts of the Province caters the agriculture services demands of farmers and have significant role in developments of agriculture. It is the main collaboration point between farmers, private sector and NGOs/CSOs. Devolution enabled provincial Agriculture Department to strengthen farm services center role in the respective districts with respect to provision of basic services and infrastructure at village level. The FSC approved act allows these centers to establish links with private sector and play a role with regard to purchase of input supplies, marketing and credit. Additionally the FSC's are in capacity to avail credit on loss no profit basis from formal and non-formal sources and such arrangements minimize the cost and enhanced profitability. Agriculture Department has prepared many micro-interventions in seed production, inputs purchase and marketing of agriculture produces which will ultimately impact growth and development of agriculture sector in the Province (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015).

c) Restructuring and Strengthening of the Agriculture & Livestock Wings etc

Mr. Mir Ahmad Khan, Section officer livestock confirmed that livestock is major contributor to provincial agriculture growth and development. In pre-devolution era livestock related frameworks and establishment was very thin and weak. The devolution of agriculture functions including livestock provided an opportunity to fill this gap. Provincial department of agriculture is in the process of restructuring Livestock wing through new technical staff hiring, training and infrastructure services like labs resources establishment and up gradation is underway to meet the demands of the farming community in the province and thereby boost overall livestock economy in the province (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015). Additionally livestock sector will be linked with private sector. Staffs working in agriculture department including agriculture, livestock, research, water management, extension, and training have been up-graded and further improvement is in progress which will results in overall improvement in the growth and development of agriculture sector of the province. The results are in confirmation to the findings of CDPI (2014) which recommends gradual restructuring of agriculture and livestock department in the province after 18th Amendment.

d) Establishment of Directorate of Soil Survey of Khyber Pakhtunkhwa

Following 18th Amendment the function of Soil Survey also shifted to the Provinces. Prior to transfer no particular arrangements were in place at provincial level in the Province of Khyber Pakhtunkhwa Agriculture Department; this is why the agriculture department of this Province established directorate of Soil Survey under the administrative control of Provincial Soil Conservation Department of agriculture. All administrative arrangements are in place and the function has been fully operational in the Provincial set up. This office is functioning on preparing the broad record of soil resources of the Province along with land use planning. This function will accelerate soil related data base development and will help in boosting targeted planning for individual soil type available and recommended for specific purpose of agricultural activities. Findings of CPDI (2014) report confirm new offices, departments and sections establishments and policies to integrate newly assigned functions efficiently and effectively in the larger interest of farmers and agriculture in the Province.

e) Post 18th Amendment Legislative Arrangements in Khyber Pakhtunkhwa

Soon after passing of 18th Amendment, it was realized that Federal laws applicable in both Federal and Provincial set ups should be reviewed accordingly. Provinces were allowed legally either to follow existing federal laws and regulations or promulgate new ones (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015). The Khyber Pakhtunkhwa Agriculture Department drafted and got approved following laws as given in the Table-1.

Table-1 Acts and Laws after 18th Amendment in KPK

S.No.	Laws	Status
1.	Agriculture Pesticides Ordinance, 1971	New Provincial law is in pipeline as KPK Pesticides Act
2.	Fertilized Control Act, 1999	KPK Fertilizer Act 2014 passed and under implementation in the Province.
3.	Plant Breeders & Seed Act, 1976	Federal act. KPK Agriculture proposed Seed act is in the assembly for approval, however, FSCRD has submitted objection and the case yet to be decided.
4.	Agriculture & Livestock Produce market 2007	Provincial and a new Agriculture & Livestock Produce market 2015 act have been passed from Provincial assembly.
5.	Farmer Services Center Act 2014	KPK FSC Act 2014 passed and under implementation in the Province.
6.	Market act , Seed Act	Under review

Source: Authors own work

After 18th Amendment, the agriculture department government of Khyber Pakhtunkhwa approved laws to regulate mentioned functions in a better manner as compared to past. This reflects that necessary and required legislation is in process which will improve regulation of agriculture sector and thereby increase its overall contribution in the agricultural economy of the province. However, the case of seed testing and certification function devolution is under consideration and will take time to be finalized. The Executive and District officers' agriculture in all ten districts recommended reviewing of existing fundamental laws and acts governing agriculture functions, they also recorded and confirmed that all laws reframing should be finalized after the eighteenth amendment in consultation with District Agriculture set up of the Province. Additionally it was realized that the Provincial government hadn't yet visited all laws in vogue. Further they recorded that no debate is under process over the proposed amendments to the laws which comes under Provincial purview after 18th amendment and many areas of concern still need to be in preview for effective implementation. The results are in confirmation to the findings of CDPI (2014) wherein revision of provincial laws and Rules of Business have been recommended for better regulation and administration of agriculture sector in the Province.

f) Donors and PSDP Projects after 18th Amendment

Prior to Devolution the province of Khyber Pakhtunkhwa was fortunate enough to discuss, plan and operate international aid funded projects. Foreign aid projects have a long history and contributed considerably in the growth and development of agriculture sector of the province of Khyber Pakhtunkhwa. The notable Kalam Integrated Development project (KIDP), Pak-Swiss Project for Horticulture Promotion in NWFP (PHP) of Swiss Development Cooperation projects and Barani Area Development Projects (BADP) of IFAD significantly improved agriculture generally and horticulture specifically in its soft and hard landscape in the Province especially Malakand Division. After successful completion in the Province PHP was termed as Model for horticulture Development in similar geographical situations like Malakand Division and replicated by SDC in Central Asian states. Funded project were joint ventures and significantly contributed in agriculture sector development in the province, however, the prevailing security situation followed by disasters resulted in deviation or shifting of Foreign aided projects in other directions. This clearly depicted in low growth of agriculture sector in the last decade. Majority respondents confirmed that foreign aided and PSDP projects have great impact on development of agriculture sector and revival of foreign aided projects is seriously required. 18th Amendment provides an opportunity with authority to provinces to directly engage with donors and plan programs of mutual cooperation in larger interest of the people and econ-

omy of the province. It is therefore required to sort out mechanism to ensure foreign aid in agriculture sector which will result in further improvement of the sector as indicated in CDPI (2014) research.

g) Financial Preparation after 18th Amendment

After Amendment, the next important task was justified distribution of financial resources among the federating units. The 7th National Finance Commission Award, announced on 18th March 2010 and revised on 10th May 2010, as a matter of fact, the allocation of provinces in the total funding was appropriately increased from 49% to 56% during 2010-11 and 57.5% from 2011 -12 onwards and as such resulted in substantial increase of provincial ADPs (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015).

The Khyber Pakhtunkhwa Annual Development Plan allocation increased between 2008/9 and 2010/12. Similarly over the same period the amount allocated to agriculture has doubled but still accounts for only 2.2% of the ADP which is very small when compared to the share of agriculture in the economy 22% of GDP (Agriculture Policy, Government of Khyber Pakhtunkhwa, 2015). Details of allocation made for agriculture sector are on the rise after devolution as envisaged in Table 2 given below.

Table-2 Budget Allocation for Agriculture in KPK after 18th Amendment

Budget Year	Allocation (Rs. Billion)
2008-2009	41.5
2009-2010	51.2
2010-2011	39.764
2011-2012	69.283
2012-2013	118.0
2013-2014	139.8
2014-2015	153.0

Source: Agriculture Policy, Government of KhyberPakhtunkhwa, 2015

While discussing financial investment after devolution, Mr. Muhammad Tahir section Officer Accounts reported that there may be a case for further increases in the allocation to agriculture, provided the Department of Agriculture plan and implement activities at the field level as envisaged in Agriculture Policy document and Interview with Muhammad Tahir Section Officer Administration in Agriculture Department. He mentioned that the general agreed share from federal government devisable pool expanded considerably and further expansion in budget is expected in the wake of eighteenth amendment. The measure of ADP expanded

by more than fifty percent yet at the same time incremental budget planning and investment is required. This had reflected into a much greater Annual Development Program (ADP) for FY 2010/11 of Rs. 69.283 billion when compared with the Rs. 39.764 billion in the past financial year allocations denoting an increase of 74 percent over the two years. This reflects that increase in investment in agriculture sector will definitely improve overall contribution of the sector in the Provincial economy. Besides from the money related repercussions, administration of exchanged subjects additionally represents a tremendous limit challenge in the transitional stage. Since, the province of Khyber Pakhtunkhwa confronts in routine sever disasters and shocks, therefore further support of federal government will always be required.

Furthermore, Federal government had not established any mechanism to hand over devolved organizations, projects and functions along with concerned records, resources and liabilities. The Provincial Government Agriculture Department also had not started any sound work to fully integrate all transferred functions in the existing system, for this specific reason the vast majority of the advantages of 18th Amendment are in oversight condition. For instance, the Government of Khyber Pakhtunkhwa Department of Agriculture has not decided the nature and sorts of records which must be exchanged to the provincial setup for smooth operation on transferred functions and departments. This, sadly, confirms that after more than five years of passing of the eighteenth amendment, the provincial agriculture department has not made any visible progress except approval of Khyber Pakhtunkhwa's Agriculture Policy, 2015 and two acts as explained in CDPI (2014) report.

h) Challenges Emerged after 18th Amendment

Decentralization results in improvement and development slowly and gradually because development through evolutionary process needs time to mature and brings fruits for masses. During research it was established that further steps are required to ensure full scale transfer of agricultural functions in the Province of Khyber Pakhtunkhwa. The devolution has expanded the obligations and assignments of the province at the time when it is confronting disjoin war on terror. In spite of confronting numerous obstacles, the Provincial Government must be in position to cope with the challenges of resources constraints, capacity limitations and ensure successful transfer of agriculture functions in the Province as 70 percent of its population directly dependent on agriculture and its allied sectors development.

Expanded functions demand for scale arrangements and effective implementations of plan programs in order to ensure smooth integration of the shifted responsibilities in agriculture department of Khyber Pakhtunkhwa. New sections

and organizations should be established on shifted functions to enlarge agriculture planning and implementation frameworks. However, the province is badly confronting financial constraints, skilled and technically sound human resources, in totality the department appears to be inappropriately organized to care for the new functions. The Section Officer Administration explained serious money related ramifications and declared financial constraints as major hurdles and cause of delay in integration of transferred functions. He linked integration of new agricultural assignments in the Provincial system with in time availability of Provincial share. While acknowledging problems of capacity constraints, Mr. Akhtar Ali Shah and Mr. Muhammad Tahir, Section Officers, Agriculture Department Government of Khyber Pakhtunkhwa argued that the Department is reasonably and appropriately prepared and in capacity to adapt to the expanded obligations and responsibilities, however, it should transparent and binding as full scale transfer of agricultural function without any interruptions.

After devolution of Agriculture functions some technical problems needs thorough deliberation and decision. For example cases of trade, seed and services acquisition in province from abroad will be required to go through newly created Federal Ministry of Food security and Research while Agriculture is a Provincial subject. This needs review and collective decision in the best interest of State and public. Either Provinces may be empowered or a joint (Federal + Provincial) facilitation centre may be created to address issues of such nature. It was also learned that the resourceful tea/tobacco research institutes and Pakistan Agriculture Research Council entities in the Province have been retained by the Federal Government while financially stressed attached departments and projects have been handed over to province and this needs correction.

CONCLUSION & RECOMMENDATIONS

Conclusion

The research confirmed that 18th Amendment was a milestone in the constitutional and Agriculture Development history of Pakistan. It not only restored the basic mandate of Provincial Department to the Provinces but also laid considerable responsibility on related Departments to contribute efficiently and effectively and enhance contribution of Agriculture in the economy. A great deal of diligent work and endeavors are still in need to promise exhaustive execution of the transferred agricultural functions in the Province as per spirit of the 18th amendment.

Following the Amendment, various attempts have been recorded by successive Federal Government to recentralize the subjects which have been devolved to provinces including agriculture. Seven ministries including Ministry of National Food Security and Research re-established by the former Federal Government

and majority of researchers have termed this as an act of extending federal hegemony specifically in subjects falling within provincial domain.

The most important contribution of 18th amendment was strengthening and facilitation of provincial governments and their respective departments by entrusting them greater role in framing policies and decision making in transferred functions. However, it is astonishing that no mechanism for collection of resources of devolved functions and attached units established so far by both Federal and Provincial Governments which also needs appropriate measures.

The province observed low growth and development of agriculture after 18th amendment. Provincial Agriculture Department planning and commitments are in place to address issue of low growth and farming community grievances. The new Agriculture policy 2015 approved is under implementation, two acts including Agriculture & Livestock Produce and market Act 2014 and Farm Services Centre Act 2014 has already been approved and functional with anticipated improvement in agriculture sector of the Province.

Additionally successive federal and provincial Government of Khyber Pakhtunkhwa related departments' needs to revive foreign funded project in agriculture sector which have considerable importance for boosting agriculture sector growth and development. Finally, full-fledged implementation of 18th amendment process must be ensured so that agriculture sector performs efficiently and effectively, if agriculture is a residual subject than no hurdles should come in the way of smooth transfer of agricultural functions to the provinces as require.

RECOMMENDATIONS

1. The economy of KPK depends on agriculture and development of agriculture is subject to implementation of Government Policy. The policy objectives could not be achieved without appropriate investment of funds and proper human resource mobilization. Therefore the newly approved policy should be thoroughly implemented and monitored.
2. Progressive and market linked strategy as devised in the new approved policy should be implemented to replace low growth and development of agriculture sector.
3. The department of agriculture needs to be gradually restructured to integrate newly devolved functions and establish specific entities of devolved functions like Planning, farm management etc.
4. The rules of business in vogue needs revision as to incorporate devolved responsibilities. Interim arrangements should be replaced with proper Provincial acts and laws covering all functions of agriculture

5. The financial provisions for agriculture should be enhanced and early investment should be arranged in this sector. Government should expand its agriculture establishment by creating new departments and entities in this sector to address issues in inputs supply on reasonable price, bring value additions, spread improved communication, ensure efficient marketing arrangements and further strengthen the agriculture research & extension networks operational in the Province. Incremental funding is recommended in areas of research and extension.
6. Farmers' capacity in use of modern technology, high-yielding varieties and judicious use / application of chemicals (insecticides, pesticides, herbicides and fertilizers) skills should be enhanced.
7. Foreign funded project of the pre- devolution era should be revived for boosting agriculture growth and development in the Province.
8. Provincial Agriculture Department should establish a fair, stable, progressive and vibrant market system to maximize farmers and producers gains from marketing agricultural commodities in the markets. Agriculture & Livestock Produce Act 2014 should be strictly implemented to save farmers and enhance farmers overall economic benefit.
9. Finally comprehensive and functional transfer of agriculture functions as per spirit of Devolution may be made to the provinces. Capacity especially technical capacities of Provincial Agriculture Department should be addressed and existing policy unit should be strengthened. A continued capacity building program should be in place for their training and capacity enhancement in all functions of agriculture
10. Mechanism must be established by Khyber Pakhtunkhwa Agriculture Department in consultation with Provincial Government for collection of resources in case of devolved functions and attached departments.

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